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UNIVERSITY OF SOUTHAMPTON

FACULTY OF HUMANITIES

Archaeology

Volume 1 of 2

**Local archaeological archives as participatory heritage: Investigating the potential of
social media to improve access to archaeological archives in local government
affiliated museums in England and Wales**

by

Nicole Beale

Thesis for the degree of

April 2016

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF HUMANITIES

Archaeology

Thesis for the degree of Doctor of Philosophy

LOCAL ARCHAEOLOGICAL ARCHIVES AS PARTICIPATORY HERITAGE: INVESTIGATING THE POTENTIAL OF SOCIAL MEDIA TO IMPROVE ACCESS TO ARCHAEOLOGICAL ARCHIVES IN LOCAL GOVERNMENT AFFILIATED MUSEUMS IN ENGLAND AND WALES

By Nicole Eileen Beale

This research presented within this PhD thesis sets out to develop new models of social media use for local government affiliated museums that care for archaeological archives (LAMA). The research was conducted in response to an emerging need for these institutions to engage more effectively with stakeholder communities in light of pressures on funding, the diversification of the heritage agenda, and in response to the increasingly community orientated nature of the museum in contemporary Britain.

The thesis sets out to characterise and critically review current social media use by local museums and to propose new models of use that are informed by institutional objectives and co-designed with museum stakeholder communities. The findings of the research and the resulting recommendations are based upon an extensive review of sectorial practice, interviews with practitioners from international museums recognised for their exemplary use of social media, and a substantial period of participative action research conducted at a LAMA partner institution; Hampshire Cultural Trust.

The thesis proposes that more effective use of social media can aid LAMAs in re-aligning institutional practice so as to incorporate community involvement in interpretation and decision making. The research suggests that new models for social media use have the capacity to recast the role of the local museum in contemporary society as a collaborative, discursive and pluralistic social institution with an integral social function. The primary output of the PhD is a framework which LAMA institutions (as well as other museums with locally derived collections) can use to plan and implement transformative social media practice.

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DECLARATION OF AUTHORSHIP

I, Nicole Beale, declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

Local archaeological archives as participatory heritage: Investigating the potential of social media to improve access to archaeological archives in local government affiliated museums in England and Wales.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signed:

Date: 18th April 2016

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Definitions and Abbreviations

AAF	Archaeological Archives Forum
AAM	American Alliance of Museums
ACCORD	Archaeology Community Co- Production of Research Data
ACE	Arts Council England
ADS	Archaeology Data Service
AHBR	Archaeological and Historical Buildings Record, Hampshire County Council
AHD	Authorised Heritage Discourse
ALGAO	Association of Local Government Archaeological Officers
ALVA	Association of Leading Visitor Attractions
ANT	Actor Network Theory
API	Application Programming Interface
BBC	British Broadcasting Corporation
BM	British Museum, London
CAA	Computer Applications and Quantitative Methods in Archaeology Conference
CBA	Council for British Archaeology
CC	Creative Commons
ClfA	Chartered Institute for Archaeologists
CLGC	Communities and Local Government Committee
CoA	Curator of Archaeology
CT	Collections Trust
DCLG	Department for Communities and Local Government
DCMS	Department for Culture, Media and Sport
DCO	Digital Content Officer
Digital R&D	Digital Research and Development Fund for the Arts
ECRISSH	Directorate-General for Research and Innovation. Socio-economic Sciences and Humanities
EH	English Heritage

EU	European Union
FAME	Federation of Archaeological Managers and Employers
GAP	Google Art Project
GLO	Generic Learning Outcomes
GSO	Generic Social Outcomes
HCC	Hampshire County Council
HCCAMS	Hampshire County Council Arts and Museums Service
HCT	Hampshire Cultural Trust
HEA	Higher Education Academy
HER	Historic Environment Record
HFCAS	Hampshire Field Club and Archaeological Society
HLF	Heritage Lottery Fund
HTML	Hyper Text Mark-up Language
ICOM	International Council of Museums
ICT	Information & Communication Technology
IRC	Internet Relay Chat
LAMA	Local Authority Museums caring for Archaeological archives
LGA	Local Government Association
LOCCol	Located-Open-Connected-Collaborative approaches to social media
LODLAM	Linked Open Data in Libraries, Archives and Museums
MA	Museums Association
MAA	Museum of Archaeology and Anthropology
MCG	Museums Computer Group
MCN	Museums Computer Network
MFA	Museum of Fine Art, Boston
MLA	Museums, Libraries and Archives Council
MO	Marketing Officer
MOA	Museum of Anthropology, University of British Columbia
MOOC	Massive Open Online Course

MUSM	Museums Use Social Media framework
NGO	Non-government organisation
NLGN	New Local Government Network
NMDC	National Museum Directors' Council
NPPF	National Policy Planning Framework
NRS	National Readership Survey
OASIS	Online Access to the Index of archaeological investigationS
OGL	Open Government License
OII	Oxford Internet Institute
OKF	Open Knowledge Foundation
ONS	Office for National Statistics
OpenGLAM	Open data for Galleries, Libraries, Archives, and Museums
PAS	Portable Antiquities Scheme
PCC	Plymouth City Council
Renaissance	Renaissance in the Regions programme
ROI	Return on Investment
RRN	Reciprocal Research Network
SCC	Southampton City Council
SEO	Search Engine Optimisation
SMA	Society of Museum Archaeologists
SOCITM	Society of Information Technology Management
SWFed	South Western Federation of Museums and Art Galleries
UK	United Kingdom
URL	Uniform Resource Locator
USA	United States of America
USHMM	United States Holocaust Memorial Museum
V&A	Victoria and Albert Museum, London
WCC	Winchester City Council
Web	World Wide Web

WELL	Whole Earth 'Lectronic Link
WWI	World War One
YMT	York Museums Trust

Chapter 1: Introduction

1.1 Research question

The adoption of World Wide Web technologies by museums has been accompanied by a great deal of enthusiasm. Social media in particular has been heralded as a way to engage new audiences with museums (Lang, *et al.*, 2006; Kotler, *et al.*, 2008; Russo & Watkins, 2008; Geoghegan, 2010; Fletcher & Lee, 2012), and improve access to collections (Marty, 2007a; Kalfatovic, *et al.*, 2008; Weisen, 2008; Trant, 2009). The research described in this thesis examines why the use of social media has not realised the promised potential of the participative Web for locally focused museums in England and Wales.

This research focuses on local government managed museums that care for archaeological archives. Despite a conviction amongst heritage specialists that archaeology has the potential to augment experiences of heritage (Guttmann-Bond, 2010; Holtorf, 2007, 2011; González-Ruibal, 2013; Ander, *et al.*, 2013a; Little & Shacke, 2014), public engagement on the Web with archaeological archives has been problematic for local government museums. This research is timely as a response to uncertainty about the future sustainability of current approaches to the management of archaeological archives cared for by local authority managed museums (Wise, 2007; Merriman, 2008; Edwards, 2012a).

Social media seems to offer considerable extension of practice for local museums. It has been adopted across much of the museums sector as a way to enable participation with heritage (Kelly, 2010; Ridge, 2013). In the cultural heritage sector more generally, there is enthusiasm for the potential of the Web to facilitate experiences with heritage (Owens, 2013), and specifically of archaeology (McDavid, 2004; Lake, 2012).

However, the zeal for Web-based involvement with heritage is not currently reflected in most actual experiences with archaeological archives online that are cared for by local museums. Whilst energies are being spent on digitising archives and creating online interfaces to collections databases (Cameron & Kenderdine, 2007; Parry, 2010), there has been a lack of take-up by local museums of the social possibilities of the Web for impacting on key aims such as community strengthening through archaeological archives.

This thesis will argue that the reasons for this lack of uptake are complex and have their roots in

more profound anxieties around use of the Web. Uncertainties surround the role of locally focused museums and the contribution of archaeological archives to contemporary society. This climate of uncertainty will be explored through an analysis of problems as they are compounded by widespread misunderstandings relating to the nature of the Web and the potential of social media technologies in the experience of archaeology and heritage.

This research has been funded by the Web Science Doctoral Training Centre which studies the Web as a socio-technical system that is co-constituted through our interactions with the Internet (Hall & Tiropanis, 2012). Web Science is a new cross-disciplinary discipline that conceptualises the Web as both a technical information system and a transformative phenomenon (Halford, *et al.*, 2010). As such, this thesis represents an intersection between technology and local museums. Through this intersection, local museums are realigned with the opportunity of local heritage by leveraging social media and simultaneously contributing to the shaping of the Web itself.

The research described in this thesis will determine the latent potential of local government affiliated museums that care for archaeological archives (LAMAs). This research establishes that there are two major contributions LAMAs can make to society by engaging with social media. Firstly, LAMAs can enhance experience of heritage and the facilitation of communities through heritage. Secondly, LAMAs can improve experience of the online by enabling digital skills development and by augmenting the shape of the Web itself. This thesis asks two major research questions to this end:

1. *Why have local museums failed to realise the benefits which were expected to arise from the adoption of social media?*
2. *How can contemporary thinking in the museums sector, and research into the Web and society, be used to inform new approaches to social media by local museums?*

This chapter provides an overview of the thesis, outlining the relationship between the research process and the thesis itself as well as containing a brief description of each chapter. This chapter outlines the contributions of this research, introduces the aims and objectives for this research, and discusses the main conclusions from the research.

1.2 Contribution of this research

This research makes substantial original contributions to local museums in the areas of theory and practice, experience of archaeological archives, and use of social media. This research also

progresses the relationship between research into the role of archaeological archives within local museums and experience of local heritage.

1.2.1 Future-proofing the role of archaeological archives in local authority affiliated museums

This research improves knowledge around the significance of LAMAs in society today. The approach of this thesis is novel by incorporating theoretical analysis of a wider range of literature and practice than is currently employed for exploration of Web use in the museums sector. This is extended by combining findings from participative action research to gain a more nuanced understanding of context-specific challenges. Participative action research takes place with the partner organisation of Hampshire Cultural Trust (HCT). This identifies new ways that LAMAs can increase the positive impact of archaeological archives for their work. The partner organisation ensures the relevance of this research to the sector as it provides the grounding for context-sensitive guidance that is included within the findings.

1.2.2 New methodology for examining the Web

This research combines practice and theory in order to gain understanding that has not previously been possible. This is because current approaches to understanding Web use by museums, common in museums studies and heritage studies have been standalone in nature, without considering technological affordances alongside cultural practices (Flyvbjerg, 2006: 221; Langlois, 2012: 96). This has resulted in a disconnect in methodologies used to embed the Web with the actual activities of LAMAs.

The methodology for analysis of the Web developed in this thesis can be used by other collecting organisations such as libraries and archives. Three main areas are covered by the research methodology. Firstly, examination of research literature regarding Web use by local museums will be combined with findings from less apparent disciplinary traditions, including technology studies and Internet studies. Secondly, theoretical analysis is enriched through an examination of sector-based examples of practice. Interviews are conducted with key players from case studies that serve as instances of creative uses of technology for experience with heritage. Thirdly, analysis of potential new approaches to social media will be considered through the lens of reflexive readings of practitioner experience in real world scenarios. This insight is gained through reflexive reports carried out before, during, and after the research process, combined with participative

action research at HCT, with a particular focus on the archaeological archives cared for in the archaeology stores.

1.2.3 Improving practice in the heritage sector

The findings of this research make a unique contribution to practice in the heritage sector relating to the use of the Web to facilitate experiences with heritage through archaeology. This is achieved by working with the context-specific partner organisation throughout the process of research. The research has a particular focus on the potential of archaeological archives held in local government managed museum collections to enrich communities' experiences of heritage. This thesis will argue for the relevance of LAMAs in a political scene within the museums sector characterised today by de-centralisation and devolution to the regions.

A major output of this research is the Museums Use Social Media (MUSM) framework which is developed from the research and is presented in Chapter 8. The framework is intended for use by LAMAs for the development of methodologies for the creative adoption of social media. The MUSM framework supports locally focused museums to design and implement specific projects that make use of social media in an informed manner. Acknowledging the underlying affordances of social media will enable paid staff and volunteers in local museums to better align online activities with organisational objectives. The MUSM framework can be used by governing and funding bodies of local museums to improve the relevance of strategic-level aims to the communities served by a museum. There are accompanying materials to the MUSM framework that will be described in the later chapters of this thesis. These include a printed booklet and a companion website (<http://www.localmuseums.org/>).

1.3 Research Aims

This thesis has two aims:

1.3.1 Aim 1 – Contribution to theory

To contribute to the body of research concerned with the Web and society and advance the relevance of local heritage to this research area.

This thesis will improve understanding of the context of current Web use by local authority affiliated museums in order to improve access to archaeological archives in their care. The

findings from this thesis will drive innovative technology use and provide a means to evaluate the potential of Web use. This will provide a framework for LAMAs to use in order to improve impact through social media.

This thesis will demonstrate that expectations of museums and of the Web have led to unrealistic expectations of use of social media by LAMAs. This research will establish that this unviable perception is compounded by rhetoric surrounding social media which is based on hype rather than on a realistic assessment of the possibilities that the Web offers. This will be achieved by demonstrating that there has been a poor understanding of the Web and of digital technology more generally in the museums sector. This in turn has led to a misuse of digital tools and a resultant devaluing of curatorial skill as it is expressed online. The devaluing of curatorial practice is impacting negatively on people's experience of museums online, and this in turn is effecting sector resilience.

1.3.2 Aim 2 – Contribution to practice

To contribute to practice in local museums by augmenting Web use and to add original discoveries to the body of research concerned with museum and heritage studies.

This thesis will enable LAMAs to align the use of social media more appropriately to organisational objectives in order to improve experiences of local heritage. Justifications for supporting archaeological archives within a local authority museums context have become increasingly unclear in relation to governing body aims and objectives. This research responds to this by designing an approach that gives precedence to local community requirements of heritage over the goals of governing bodies.

This new approach will take the form of a methodology that will enable informed social media adoption and improved expression of curatorial skill online by local museums. This methodology has at its centre the Museums Use Social Media (MUSM) framework. This aims to overcome the bias in current incompatible models of Web use by the museums sector such as online collections databases. The partner organisation of HCT will provide a context-specific grounding against which the evolving MUSM framework and methodology is tested.

The findings from this thesis can be used by local museums to improve the impact of Web uptake through strategic alignment of digital technology use with organisational objectives. This thesis will identify ways for local museums to shape the Web through digital content creation and

sharing and by enabling community formation around heritage online. This change in perspective and activities will safeguard archaeological archives that are cared for by local museums by increasing the impact of collections on individuals, local communities, and at a societal level, as well as improving digital capacity in the museums sector.

The objectives of the research and an overview of the intended contribution of this research are provided below.

1.4 Research Objectives

The research described in this thesis has 7 objectives:

1.4.1 Objective 1 - Analyse the impact of bias in expectations of Web use

This thesis will demonstrate that the role of the local museum today is not well-understood. Using analysis of literature from the museums sector, this research will examine commonly held notions of a museum as a static, permanent, and universal site for the storage of objects of significance (Witcomb, 2003; Marstine, 2008). It will examine why these concepts do not apply in the case of locally focused museums. The thesis determines through examination of a combination of theory and practice that local museums are ill-suited to centralisation in use of social media use, because they are neither static nor universal. Despite this, local museums are attempting to contribute in this manner in order to gain access to centrally managed support. This research will identify an alternative methodology through which local museums can play an important role in their geographical context online, therefore enhancing experience of local heritage on the Web and encouraging creative engagement with the Web more generally.

1.4.2 Objective 2 - Evaluate the potential of the Web to overcome the crisis for local museums with archaeological archives

This thesis examines how LAMAs can improve relevance in a world where the Web is increasingly ubiquitous. The profusion of information online, particularly in relation to social history ephemera, genealogical data, and historical mapping means that for many the Web seems to fulfil some of the traditional facilities of a local museum (Weil, 2002; Burton & Scott, 2003; Carson, 2008; Kirchhoff, *et al.*, 2008; Andermann & Arnold-de Simine, 2012). This research is concerned with understanding the opportunities for LAMAs to contribute to this growing body of

information and to shape the Web. The potential of community-focused narratives to inform future developments of heritage online will be explored.

This thesis focuses on archaeological archives held by local authority museums. Consideration of this particular aspect of archaeology is timely because local rather than larger nationally focused museums often carry the burden of caring for growing collections of archaeological artefacts and archives from ongoing and historical archaeological investigations in the UK (Edwards, 2012a). This thesis is a response to the surge in publications within archaeology that demonstrate the keen interest in the importance of archaeology to provide solutions for societal level challenges (Guttmann-Bond, 2010; Holtorf, 2011; González-Ruibal, 2013; Ander, *et al.*, 2013b; Little & Shacke, 2014). This idea has been slower to be incorporated into the work of local museums, this thesis contributes to this area.

1.4.3 Objective 3 - Develop directions for local museums to contribute to experiences of heritage online

A critical examination of the relationship between contemporary trends in the delivery of services by LAMAs within the museums sector is required. This is particularly necessary in relation to the affordances of the Web which are little understood in the sector. These qualities of the Web, in particular of social media, present a challenge to LAMAs as they strive to achieve their aims. This thesis questions the underlying assumptions in contemporary trends in Web use. Through this, ways in which LAMAs and social media can inform practice in a mutually exclusive manner are identified. Each local museum operates within a situation specific to the context within which it is based. There is currently a separation in social media use between the needs of communities served by local museums and the aims of governing bodies.

1.4.4 Objective 4 - Develop processes to encourage innovation in technology use

This research informs current understandings of the purpose of LAMAs in society and challenges current conceptions of the potential contribution that these organisations can make at a global, local, and individual level. This thesis will move forward the debate around the place of Web technologies within curatorial practice, suggesting future directions for research into heritage practice and also for future technology use in the cultural heritage sector. This thesis will examine instances of curatorial practice online and identify current mechanisms that are slowing innovation in online curatorial practice.

1.4.5 Objective 5 - Design a methodology for strategic approaches by local museums for social media uptake

New methodological approaches are required in order to inform future strategic uptake of Web technologies. The MUSM framework will inform one particular part of this by supporting the use of social media by local museums. This thesis will identify unleveraged potential in encouraging experience of heritage online through archaeology held within local museums. The idea of the expression of heritage through archaeology is generally accepted on the global stage (Moser, *et al.*, 2002; Chirikure & Pwiti, 2008; Simpson, 2008; Smith & Waterton, 2009). Archaeological archives in the care of local authority museums are a significant resource that can provide insight into issues such as identifying changes in socio-cultural and economic factors affecting global concerns. For instance, archaeology can inform future plans for competing needs for land-use or challenges from climate change (Camp, 2010; Guttman-Bond, 2010; Van de Noort, 2011). This resource is currently untapped for LAMAs. This thesis will therefore identify ways for the contribution that archaeological archives can make at a local level online to be recognised more readily. The potential of social media as a tool to facilitate experience of heritage informed by archaeological archives will be explored.

1.4.6 Objective 6 - Identify methods to enable informed use of social media and expression of curatorial skill online

The thesis acts as a roadmap for the potential of the Web for LAMAs. The MUSM framework provides a way for LAMAs to design a sustainable model for engaging with the social media as an interface for the Web. Improved use of social media will have a positive impact on shaping the Web by contributing digital content and expressing curatorial skill. The roadmap contained within this thesis will also ensure the future relevance of LAMAs for a broad range of communities by enabling adoption of an interest-based approach to social media use. This thesis will contribute to knowledge in the sector of methods for the expression of curatorial skill online, with a particular focus on the benefits of incorporating participative approaches.

1.4.7 Objective 7 - Design resources for local museums to extend the impact of Web-uptake through social media

The final objective of this research is the production of resources for use by LAMAs. This research will produce a booklet with accompanying website to provide advice for social media use through

examples of practice. These examples will be used to promote understanding of social media use in the museums sector generally. This research will also result in the publication of articles to support skills development in the sector for improved Web use.

Tables 1 and 2 overleaf provide an outline of the aims and objectives within the research process and describe the main contribution and area of impact for each objective.

Research Question	Aim	Objective	Contribution	Area of impact
Question 1: Why have local authority museums failed to realise the benefits which were expected to arise from the adoption of social media?	Aim 1 - To contribute to the body of research concerned with the Web and society and advance the relevance of local heritage to this research area.	Objective 1 - Analyse the impact of bias in expectations of Web use in the museums sector.	Local museums can enhance experience of heritage at a local level by leveraging the opportunity of heritage. The potential contribution of technology is amplified.	Contribution to research: Future-proofing the contribution of archaeological archives in local authority museums.
		Objective 2 - Evaluate the potential of the Web to overcome the crisis of archaeological archives in local museums.		

Table 1 - Overview of the objectives, contributions and areas of impact of the research described in this thesis, in relation to Aim 1.

Research Question	Aim	Objective	Contribution	Area of impact
Question 2: How can contemporary thinking in the museums sector, and research into the Web and society, be used to inform new approaches to social media by local authority museums?	Aim 2 - To contribute to practice in local museums augmenting Web use and add original discoveries to the body of research concerned with museum and heritage studies.	<i>Objective 3</i> - Develop directions for LAMAs to contribute to experiences of heritage online and to the shaping of the Web.	Same as above (Local museums can enhance experience of heritage at a local level by leveraging the opportunity of heritage. The potential contribution of technology is amplified).	<i>Contribution to research:</i> New methodology for examining the Web, through the lens of local heritage.
		<i>Objective 4</i> - Develop processes to encourage innovation in technology use by local museums.		
		<i>Objective 5</i> - Design a methodology for strategic approaches by local museums for social media uptake.	Local museums can improve experience of the Web by enabling digital skills development, through augmentation of curatorial practice to incorporate societal needs.	<i>Contribution to research and practice:</i> Advancing theoretical understanding of the impact of the Web on the museums sector.
		<i>Objective 6</i> - Identify methods to enable informed use of social media and expression of curatorial skill online.		
		<i>Objective 7</i> - Design resources for local museums to extend the impact of Web uptake through engaging with social media.		<i>Contribution to practice:</i> Improving practice in the heritage sector.

Table 2 - Overview of the objectives, contributions and areas of impact of the research described in this thesis, in relation to Aim 2.

1.5 Structure of thesis

This section provides an overview of the research process, introducing the methods used. The first phase of the research defines the problem that this thesis aims to solve and evaluates the potential of the Web to overcome aspects of the crisis of relevance of LAMAs. The second phase identifies solutions to the problem through a context-specific examination at the partner organisation of HCT. This is combined with the development of directions for local museums caring for archaeological archives by defining the true affordances of social media. The third phase of research designs a methodology that local museums can use to improve experience of the Web by enabling digital skills development and by augmenting the shape of the Web itself. This is achieved by the examination of current examples of best practice for the use of digital technologies by cultural heritage organisations to support activities that local museums could aim to incorporate into practice. Participative action research at the HCT underpins the development of resources to use within the sector to support this change.

Tables 3 and 4 overleaf depict the relationship between the aims and objectives of this research and the research process, and outline how they occur within the structure of the thesis.

Aim	Objective	Research process	Thesis structure
Aim 1 - To contribute to the body of research concerned with the Web and society and advance the relevance of local heritage to this research area.	<i>Objective 1</i> - Analyse the impact of bias in expectations of Web use in the museums sector.	<i>Phase 1</i> - Defining the problem: • Designing research questions • Methodology design • Analysis of current context	<i>Chapter 1</i> - Introduction (research question)
	<i>Objective 2</i> - Evaluate the potential of the Web to overcome the crisis of archaeological archives in local museums.		<i>Chapter 2</i> - Methodology
			<i>Chapter 3</i> - Re-characterising local museums

Table 3 - Overview of thesis structure and how each chapter relates to research process as well as the aims and objectives of the research – Aim 1.

Aim	Objective	Research process	Thesis structure
Aim 2 - To contribute to practice in local museums by augmenting Web use and add original discoveries to the body of research concerned with museum and heritage studies.	<i>Objective 3</i> - Develop directions for LAMAs to contribute to experiences of heritage online and to the shaping of the Web.	<i>Phase 2</i> - Identifying solutions: - Context-specific examination - Defining the affordances of social media and the relationship with the Web	<i>Chapter 4</i> - Characterising social media use by local museums
	<i>Objective 4</i> - Develop processes to encourage innovation in technology use by local museums.		<i>Chapter 5</i> - Underlying affordances of social media
	<i>Objective 5</i> - Design a methodology for strategic approaches by local museums for social media uptake.	<i>Phase 3</i> - Applying solutions: - Identifying and evaluating examples of best practice - Participative action research with partner organisation - Development of resources for use within the sector to support change in practice	<i>Chapter 6</i> - Leveraging the opportunity of heritage
	<i>Objective 6</i> - Identify methods to enable informed use of social media and expression of curatorial skill online.		<i>Chapter 7</i> - Towards goal-oriented social media use
	<i>Objective 7</i> - Design resources for local museums to extend the impact of Web uptake through engaging with social media.		<i>Chapter 8</i> - Driving sector change
			<i>Chapter 9</i> - Conclusions

Table 4 - Overview of thesis structure and how each chapter relates to research process as well as the aims and objectives of the research – Aim 2.

1.6 Phases of Research

The research project described in this thesis was conducted in three discrete but mutually informing phases of work. These phases each address specific objectives and are described sequentially below along with the contents of related chapters.

1.6.1 Phase 1 – Defining the problem

The first phase of this research constitutes a comprehensive critical analysis of literature combined with practice in the museums sector in order to examine the role of LAMAs in society. This is undertaken in view of changes in access to information and knowledge sharing facilitated by the increased availability of the Web. Clarity of the role and current crisis of LAMAs is built up by combining disparate bodies of research. In order to incorporate theoretical research, a range of sources from research into theory from museums studies, heritage studies and the newly emerging body of research into the impact of the Web on society, are examined. Phase one is outlined in figure 1 overleaf and described in more detail as it applies to individual chapters.

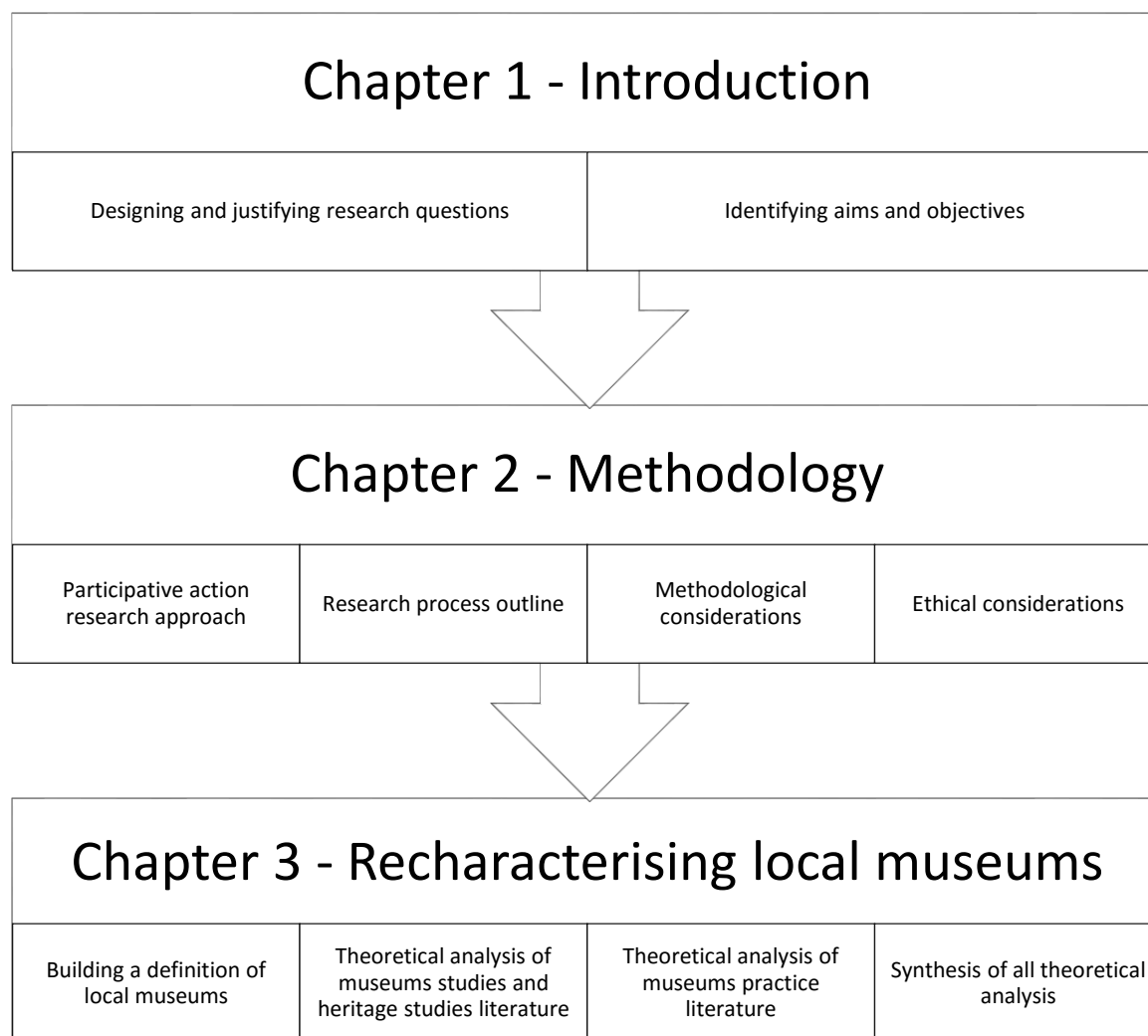


Figure 1 - Major components of phase 1 of this thesis

1.6.1.1 Chapter 1 – Introduction

Designing research questions

Chapter 1 contains an introduction to the research questions and the aims and objectives for this research. This chapter provides a brief outline of the format of the thesis and describes how each chapter relates to the research process.

1.6.1.2 Chapter 2 – Methodology

Reflexive methodology design

Chapter 2 forms the methodology of this thesis and describes the research process. The methodology is reflexive and participatory and is therefore theory generating. As a response to this, the methods used through the research process are justified in the methodology but also evaluated throughout the thesis as part of an interpretive process (Denzin & Lincoln, 2005). This includes three reflexive researcher statements.

1.6.1.3 Chapter 3 – Re-characterising local museums

Analysis of current context

To understand the role of LAMAs, this research will evaluate the bias in provision and focus of support such as training and funding in the museums sector in favour of museums that operate at a national level. This is achieved through analysis of practice in the museums sector. Despite efforts to improve inclusivity, museums are not accessed by all people (Belfiore, 2002; West & Smith, 2005), and LAMAs have had limited success in achieving multi-vocality online (Hooper-Greenhill, 1999: 23, 290; Rice, 2003: 78-84).

The chapters in this thesis outlines why clarifying the role and rebalancing the lack of attention on local or community focused museums is essential for the future of the safeguarding of cultural heritage at a community and individual level. The significance of work being carried out by locally focused museums to enable long-term care of and access to archaeological archives is little recognised (MA, 2014a). Currently most LAMAs prioritise resources to ensure the ongoing stability and safety of objects and archives in their care over sharing collections outside of the museum stores (Evans, G., 2012, 2013; MA, 2014a). This chapter evaluates the current political, social, and economic context of LAMAs by means of a synthesis of work from museums studies, heritage studies and computational thinking, combined with practice literature. This includes cultural heritage sector derived outcome documents such as policy strategies, project evaluations, and sector briefing and training materials.

This chapter observes that much of the research to date around museums and the Web has focused on national level organisations. Less popular is the interrogation of policy from research which is well-established in other sectors such as the consideration of the relationship between cultural wellbeing and local economics in urban studies and health studies (Byrne, 2011: 175-194; Hammersley, 2013: 46-55). The resultant interpretation of the contemporary perception of the role of LAMAs provides the basis for the identification of examples of practice later in this study. This approach of combining disparate bodies of research is novel in this context. It forms the basis

of a new way forward for future research into the role of local museums in a society in which the Web plays a significant part in the experience of heritage at a local level.

1.6.2 Phase 2 – Identifying solutions

In phase two, the development of social media over time is scrutinised in order to understand how it manifests within society today. The Web is having a profound effect on our everyday lives (Goggin, 2006; Kitchin & Dodge, 2011), as well as on expectations of experiences with museums (Akehurst, 2009; Ram, *et al.*, 2011; Näsi, *et al.*, 2012; Sigala, *et al.*, 2012; Law, *et al.*, 2014). Despite ongoing digital inequalities, the ubiquity of the Web is expected to increase exponentially in the near future (ONS, 2015a). Social media is a rapidly expanding component of the Web and is increasingly part of our daily activities, embedded in many other Internet-based actions (Bertot, *et al.*, 2010; Hanna, *et al.*, 2011; Bolton, *et al.*, 2013; Kent, 2013; DeNardis & Hackl, 2015). As such, the nature of social media as an intervention into our lives should be examined in order to better evaluate why uptake of social media by smaller local authority affiliated and independent museums with a local focus has occurred in an idiosyncratic manner.

As a phenomenon, the Web is understood to be socially constructed, and is explained as co-constituted by scholars in the field of the Web and society (Halford, *et al.*, 2010: 4). Whilst there seem to be synergies between the professed affordances of social media and the role of local museums within contemporary society, in most instances results of social media use has been disappointing and unpredictable. This is impacting negatively on the potential for social media use by locally focused museums. Phase two explores this relationship in detail.

This phase forms a critical analysis of current research and practice in the museums sector which is impacting on the relevance of LAMAs and uptake of the Web by LAMAs. The findings from this analysis form the basis of a statement of the significance of LAMAs' Web use within contemporary society, and the design of the ideal components of LAMAs' engagement with social media, enhanced through evaluation of examples of practice. Phase two is outlined in figure 2 overleaf and described in more detail as it applies to individual chapters.

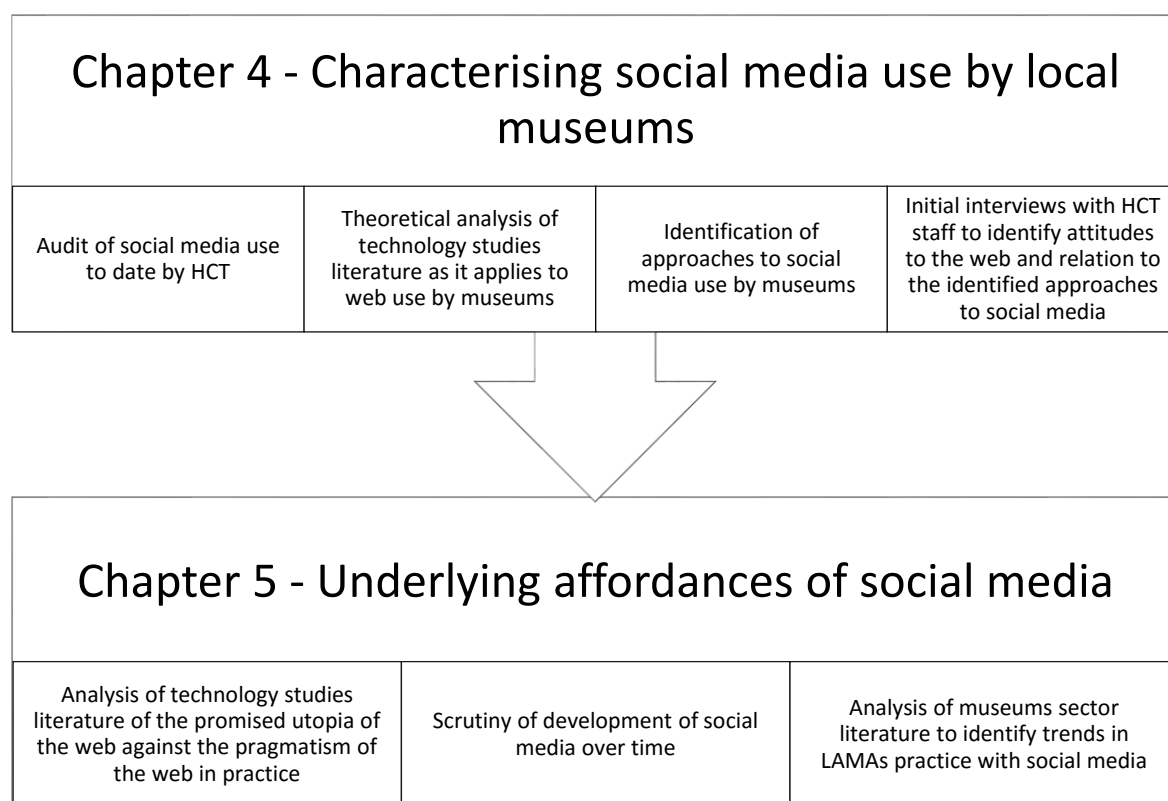


Figure 2 - Major components of phase 2 of this thesis

1.6.2.1 Chapter 4 – Characterising social media use by local museums

Context-specific examination

This chapter identifies major approaches to social media use by museums and examines the current use of the Web at the partner organisation of HCT. The chapter contains an evaluation of HCT's use of social media and examines the reasons how far particular project strategies have delivered on aims.

The examination of current approaches to social media is underpinned by the assertion that uptake of social media by many local authority and independent museums in the UK has predominately been motivated by desires to engage with new audiences and to facilitate more participatory, democratic and multi-vocal museum experiences (Smith, 2006; Reich, *et al.*, 2007; Russo & Watkins, 2008; Kelly, 2010; Simon, 2010; Schorch, 2012; Vincent, 2014). However, in most instances the actual outcomes from the use of social media by local museums does not reflect intended deliverables. This is because practice has focused predominately on restaging in

online space more traditional forms of museum experience from the analogue world. Instead of focusing on people, collections and objects drive digital content through real world mechanisms such as catalogues and exhibitions. The impact of hype surrounding the introduction and early adoption of Web technologies has not been limited to the museums sector. This thesis argues that the impact of this hype on LAMAs has been particularly acute due to the apparent closeness of fit between the goals of LAMAs and the affordances of social media.

Chapter 4 introduces the partnership with HCT as essential in the research process, providing a way to ensure the groundedness of outcomes as part of an iterative design process. HCT is a notable example for a study of LAMAs as it has recently moved from local government control to trust status. This is an increasingly popular move for many LAMAs (Newman & Tourle, 2011), and is symptomatic of the current situation. As this work is interpretive, analysis of literature is grounded in real-world experience. At each phase in the research, activities are carried out at HCT in order to improve relevance through context-specific focus. A review of current practice with the Web by museums is combined with an audit of social media use at HCT and analysis of semi-structured interviews with members of staff who have a direct impact on the way in which the organisation has been engaging with the Web up until now. The findings in this chapter provide supporting evidence for the statement of significance formed later in the thesis by examining current approaches to social media through the lens of the partner organisation.

1.6.2.2 Chapter 5 – Underlying affordances of social media

Defining the affordances of social media and the relationship with the Web

In order to identify new ways to work with social media, Chapter 5 analyses the Web and social media by means of a structured analysis of the promised utopia of the Web and social media, in opposition to the pragmatism of the Web and social media in practice. The Web is identified in earlier chapters as a key factor in the changing priorities of museums and of visitors to museums. This has resulted in changes to the role of local museums. This chapter argues that the crisis in relevance of LAMAs is a manifestation of a problem commonly experienced with expectations of the Web: that practical implementation of the Web does not match up with utopianism of discourse surrounding the Web. Through analysis of discourse surrounding the Web and society, this chapter introduces how the particular idea of the Web has manifested in the cultural heritage sector. This is clarified in Chapter 6 through development of a position statement that more realistically describes the likely impact of the Web on the work of LAMAs. In this chapter, the

ideology of social media is compared to the realities of individuals' everyday experiences of social media and the actual pragmatism of implementing social media within organisations.

1.6.3 Phase 3 – Applying solutions

The third phase of the research process builds upon the critical work reported in phases one and two by developing the MUSM framework for the effective and creative use of social media within LAMAs. This phase asserts that solutions should be based in both practice and theory, and acknowledges that LAMAs operate within a distinct set of regionally specific circumstances and have locally specific objectives. This means that any strategy for improving social media uptake in local museums cannot be made up of fixed practical recommendations based on general assumptions about needs. As such it is necessary to develop a parallel set of case-specific solutions to evaluate the potential reuse of the framework. These organisation-tailored project proposals are designed for the needs of HCT and are evaluated through participative action research at HCT (Hannabuss, 2001). The proposals also incorporate the specific needs of volunteers in the archaeology collections stores at HCT as identified in Appendix E.

The MUSM framework is responsive to the specific circumstances within which professionals at the HCT operate as well as being relevant to other LAMAs. The framework can be used by LAMAs to evaluate the challenges and opportunities which may present themselves through the use of social media within their own locally-specific context. The framework is useful for libraries, galleries, archives and other organisations that attempt to facilitate a relationship between people and local heritage. Phase three is outlined in figure 3 overleaf and is described in more detail as it applies to individual chapters and the research process.

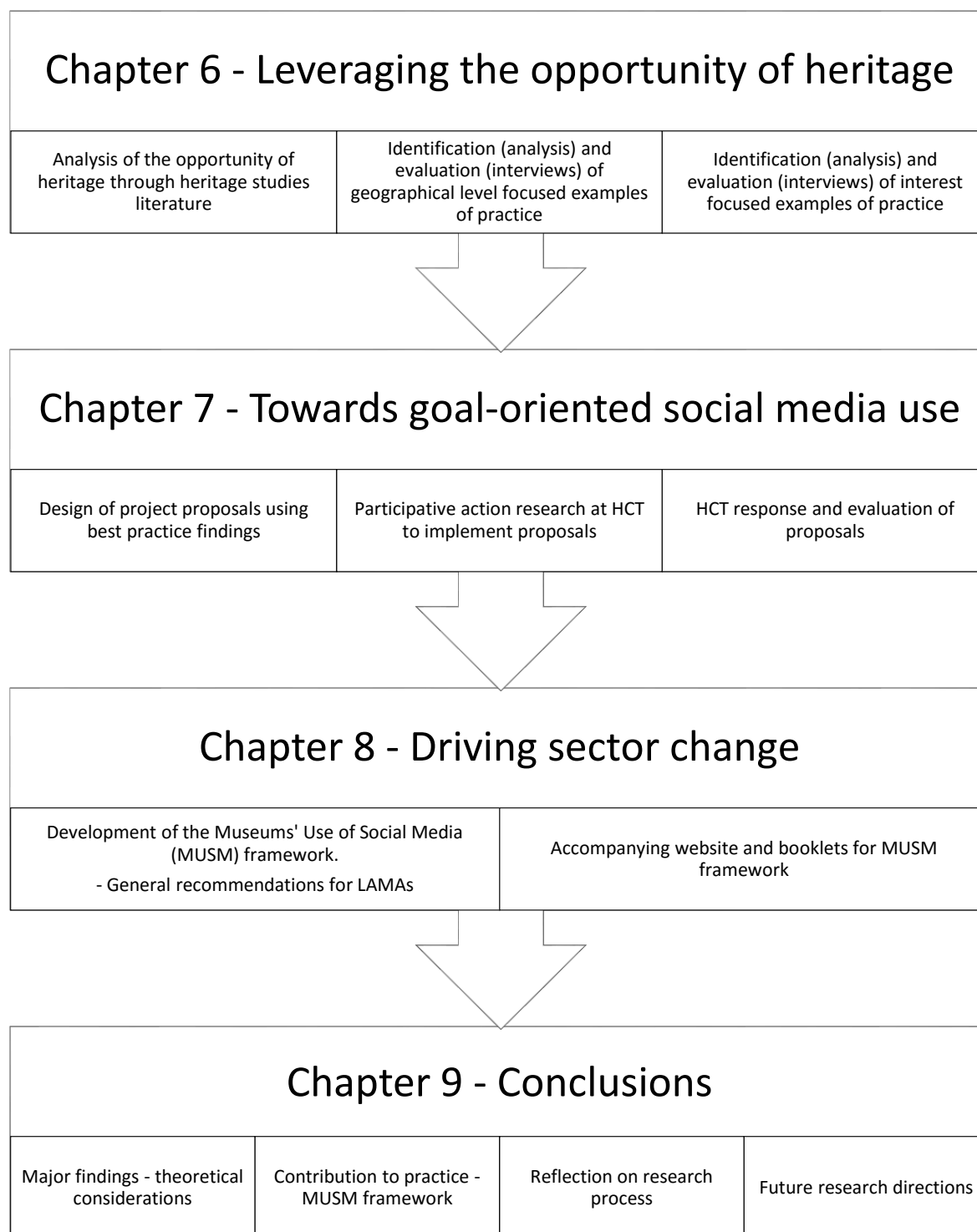


Figure 3 - Major components of phase 3 of this thesis

1.6.3.1 Chapter 6 – Leveraging the opportunity of heritage

Examining the opportunity of heritage through identifying and evaluating examples of best practice

Chapter 6 evaluates current examples of practice for creative uses of digital technologies by heritage organisations to identify key strategies for improving social media use within LAMAs. The examples of practice are from the broader cultural heritage sector, including museums that have a global focus. From an examination of 18 case studies, 3 are identified for further examination because they adopt a particular approach that makes a contribution to practice in the use of social media for experiences of local heritage.

1.6.3.2 Chapter 7 – Towards goal-oriented social media use

Participative action research with partner organisation

Chapter 7 scrutinises how far the use of social media for community building is directly applicable to specific pressures on LAMAs. This chapter considers how social media can contribute to the affirmation and improved specificity of goals identified in a local museum context. This is achieved through evaluation of context-specific applications of practice building on the findings from the case studies. These context-specific applications of practice are project proposals designed for implementation at HCT. The proposals are evaluated by HCT staff and volunteers through the process of scenario planning (Chermack & Nimon, 2013). Conclusions from the participative action research activities at HCT are combined with analysis of responses by participants at HCT to field experiments from the project proposals, particularly participating in the Day of Archaeology blogging event (2014). These are tailored to the localised challenges manifest at HCT. The foundations of the MUSM framework are therefore tested against HCT in order to ensure groundedness of findings.

1.6.3.3 Chapter 8 – Driving sector change: Museums Use Social Media (MUSM) framework

Development of resources for use within the sector to support change in practice

Whilst the specific recommendations and proposals designed and evaluated in the third phase of this research process are particular to HCT, the resultant MUSM framework is developed out of the design process for social media implementation by LAMAs more generally. The framework is therefore relevant to analogous organisations across the cultural heritage sector. From the

Chapter 1

findings of the evaluation in Chapter 7, guidelines for implementation and adaption of the MUSM framework on a case by case basis by LAMAs is developed.

1.6.3.4 Chapter 9 – Conclusions

Major findings, contribution to practice and theoretical considerations, and future research directions

In Chapter 9, the research findings from the analysis of disparate bodies of research and the application of those findings in a case-specific context, are presented. The policy-relevant findings from the research are brought together alongside the MUSM framework as part of the design of anticipated use of the framework.

Anticipated contributions of the research are described in this chapter. This chapter includes a reflection on the research process against the initial aims and objectives of the research and considers findings from the whole process through a final reflexive exercise. This chapter ends with suggestions for future implementation of findings.

1.7 Chapter overview

An overview of the main activities in each chapter is included in table 5 below.

Chapter	Activities
Chapter 1 - Introduction	Designing and justifying research questions
	Identifying aims and objectives
Chapter 2 - Methodology	Participative action research approach
	Research process outline
	Methodological considerations
	Ethical considerations
Chapter 3 – Re-characterising local museums	Building a definition of local museums
	Theoretical analysis of museums studies and heritage studies literature, including reports on museum types and threats to local museums
	Theoretical analysis of museums practice literature
	Synthesis of all theoretical analysis
Chapter 4 - Characterising social media use by local museums	Audit of social media use to date by HCT
	Theoretical analysis of technology studies literature as it applies to Web use by museums
	Identification of approaches to social media use by museums

Chapter	Activities
	Initial interviews with HCT staff to identify attitudes to the Web and relation to the identified approaches to social media
	Digital skills analysis with volunteers at HCT
Chapter 5 - Underlying affordances of social media	Analysis of technology studies literature of the promised utopia of the Web against the pragmatism of the Web in practice
	Scrutiny of development of social media over time
	Analysis of museums sector literature to identify trends in LAMA practice with social media
Chapter 6 - Leveraging the opportunity of heritage	Analysis of the opportunity of heritage through heritage studies literature
	Identification (analysis) and evaluation (interviews) of examples of practice
	Reports for use during action research at HCT: digital objects online and an examination of the context within which social media has developed
Chapter 7 - Towards goal-oriented social media use	Design of project proposals using best practice findings, including website and leaflets
	Participative action research at HCT to implement proposals
	HCT response and evaluation of proposals
Chapter 8 - Driving sector change	Development of the MUSM framework
	General recommendations for LAMAs
	Accompanying website and booklets for MUSM framework
Chapter 9 - Conclusions	Major findings - theoretical considerations
	Contribution to practice - MUSM framework
	Reflection on research process
	Future research directions

Table 5 - Overview of the main activities as they are reported within chapters.

1.8 Key conclusions

There are two major conclusions for this research.

1. LAMAs can enhance experience of heritage and the facilitation of communities through social media.
2. LAMAs can improve experience of the online by enabling digital skills development and augmenting the progression of social media, and in turn positively impact on the future shaping of the Web.

These are described in brief below. The outcomes of these overarching conclusions are presented and critically discussed throughout the chapters of this thesis.

1.8.1 Current approaches to social media

Local museums could refocus on the locatedness of heritage in online engagement activities. In order to achieve this, aims for social media use could be community-led rather than based on objectives of governing bodies. Heritage provides a method for this realignment to occur. Analysis of current practice identified that three major approaches were being used to incorporate social media into activities. These approaches compound the failure to engage with the potential of social media to support the actual needs of local museums, as identified in the thesis body. The three approaches, identified and examined in Chapter 4, 5 and 6, are:

1. Social media is applied with a focus on the functionality of particular tools to extend the real-world model of a museum onto the online. This approach places an emphasis on social media as an add-on to methods such as websites and online collections databases, which replicate existing models for curation onto the Web;
2. Social media broadcasts information about activities carried out by the museum in the analogue world. Pre-defined audiences are targeted through marketing and communications of programming using social media channels;
3. Social media supports real world activities by claiming to supplement gaps in resources. Through social media, national museums are mirrored to enhance the appearance of a local museum and present an organisation that could not exist within the confines of the current means.

The findings from analysis of instances of best practice and from participative action research at HCT indicate that new approaches to social media could improve the effectiveness of the technology to support the aims of local museums.

1.8.2 Re-characterisation of local museums and social media

This research has identified that social media can provide a way to leverage the opportunity of local heritage as a way to realign local museums Web-use towards community concerns. Social media should be embedded into practice if this is going to transpire. Four components are identified that combine to realign the online activities of local museums. These are described in Chapter 6 and 7, and briefly are:

1. By aiming to provide a safe space online, local museums can support the negotiation of identity, both personal and individual;

2. By facilitating ways for interpretation of collections to be created collaboratively online, local museums can provide insights into the curatorial process and can simultaneously support the development of narratives that acknowledge multiple perspectives and incorporate multi-layered narratives;
3. By providing a space online that enables sharing of experiences relating to collections, local museums can support the development of a sense of belonging and community as well as ensuring that difference is encountered online. Creating a third place online can contribute to improving experiences of the Web generally, increasing digital skills amongst individuals as well as for practitioners in the sector;
4. By providing contextual information about collections, local museums can facilitate telling of personal stories through social media. These stories can challenge established historical trajectories and give a locally situated voice to collections.

1.8.3 New approaches to social media

This thesis has developed new approaches to social media that support both the improvement of the implementation of local museums' objectives, as well as providing potential methods to improve social media by more adequately expressing curatorial practice online. The four new approaches, described in detail in Chapter 7 and 8, are outlined below. These approaches are a direct response to the needs of local museums as outlined above by way of the four components:

1. **Located museums act as a conduit through which to negotiate individual and community identity, engaging with local heritage on a personal level.** By focusing on supporting experiences online that are interest rather than audience based. The located museum acknowledges that identity can exist across multiple online communities and throughout several changing affiliations. Social media can be used as a way to have personal interactions that debunk the myth of 'the public' and instead engage on a personal level with playful identity building;
2. **Open museums encourage creative reuse of collections within new contexts in order to enrich the impact of heritage to new participants.** The open museum incorporates transparency into practice as well as committing to openness for digital collections. Through this, commons knowledge can be enhanced with new collections. Social media supports the creation of opportunities to experience the collections away from the

museum building by providing high quality reusable digital content from collections so that artefacts can be experienced in new settings;

3. **Connected museums support challenging of historical narratives away from mainstream trajectories.** The connected museum provides opportunities for people to provide context to objects through a third place online. This third place is based in the idea of space that exists from communal need rather than on physical place. Social media can act as this third place, through supporting public and private groups within which individuals can add personal and public narratives to collections, improving the organisation's collections care and interpretation;
4. **Collaborative museums are based on a commitment to enabling people to have experiences of heritage that have social connections at the heart.** Through providing multiple spaces within which to engage with collections, local museums can open up the digitisation, interpretation, and sharing process of curation to enable collaborative identification of new information about collections. Social media can be used to facilitate these social experiences so that multiple, overlapping interpretations of collections can be supported.

1.8.4 Main findings of the research

The research findings suggest that the development of new approaches to social media by local museums caring for archaeological archives will improve the relevance of local museums in today's Web-enabled society. This research aimed to discover why local museums have not realised the perceived benefits of social media use as well as examining how research into the impact of the Web on society can inform the development of original approaches to social media in local museums. This thesis has conducted an in-depth analysis of current context for local museums caring for archaeological archives and evaluates the impact that the Web can have on improving the contemporary crisis for local museums with archaeological collections. This informs the design of future directions for Web use to improve access to archaeology in local museums (see Chapter 3).

Through context-specific examination of HCT and close examination of the underlying affordances of the Web and of social media, this thesis suggests directions for local museums that care for archaeological archives to contribute to the shaping of the Web by enabling more strategically focused sharing of content to social media (see Chapter 4 and 5).

By identifying and evaluating examples of best practice, this thesis has produced a methodology with which local museums can leverage the opportunity of local heritage, realigning aims for social media use to community-led concerns. These findings outline best practice in enabling more effective and creative use of social media within heritage organisations (see Chapter 6).

In order to contribute to the design of resources for use in analogous situations, research at the partner organisation has resulted in a robust basis for the development of a new methodology for embedding social media into current practice and for improving the relevance of organisational aims for local concerns (see Chapter 7).

As part of the objective to identify methods to improve the expression of curatorial skill online to therefore increase advocacy around local museums and archaeological archives, this thesis has designed a practical framework that sets out how use of social media can be planned within local museums. The framework also describes how context-independent theoretical findings can be applied in the context-dependent, applied settings of local museums (see Chapter 8).

The following chapter (Chapter 2) will describe and evaluate the application of methods as part of a reflexive research process.

Chapter 2: Methodology

2.1 Introduction

This research answers a two part research question, as introduced in the previous chapter:

Question 1: Why have local museums failed to realise the benefits which were expected to arise from the adoption of social media?

Question 2: How can contemporary thinking in the museums sector, and research into the Web and society, be used to inform new approaches to social media by local museums?

Research carried out for this thesis therefore has a two-tiered ambition. Firstly, this work will scrutinise reasons why local museums are not currently making use of social media to achieve aims relating to the access to collections. Secondly, this work will focus on improving understanding around current approaches to social media by the museums sector in order to develop a new methodology. This will enable creative and effective engagement with participative aspects of the Web, with an emphasis on the potential of social media.

The research process is made up of three major phases of investigation. These build on one another to construct a picture of the potential blending of LAMAs with social media. In this way the research questions are addressed. The three phases are outlined below. Methods are highlighted in bold:

Phase 1 – Defining problems:

- **Theoretical analysis** of disparate bodies of literature, combined to build a picture of context.
- **Context-independent critical reading of texts** leading to **developing original statements** about the role of LAMAs online in society.

This phase is described in Chapter 1, 2 and 3.

Phase 2 – Identifying solutions:

- **Evaluation of Web-based activities** as evidence of use of social media in the museums sector.

- **Critical reading of texts** relating to the affordances of the Web and of social media.
- **Context-dependent analysis** of the potential for social media by LAMAs combined with a real world **examination of contemporary attitudes** to social media at the **partner organisation**, to ensure groundedness of phase one findings.
- **Analysis of findings** for meaning to be used to underpin the **design of a framework** for social media use by LAMAs.

This phase is described in Chapter 4 and 5.

Phase 3 – Applying solutions:

- **Identification and initial examination of 18 case studies** as **examples of practice** in the museums sector. Methods for analysis include **Web-based research**, **document analysis**, and **interviews** with **8 museum practitioners from 3 best practice case studies**.
- Followed by extended three and a half year period of **participative action research** at the partner organisation. This **contemporary context-dependent study** includes **observation**, **analysis of documentation**, and **in-depth, free-form and semi-structured interviews** with key facilitators at HCT (3 paid staff and 5 volunteers).
- Results are used in the **design of the Museums Use Social Media (MUSM) framework**. **Evaluation** and **fieldwork** in the form of **project proposals are tested** at HCT.
- **Critical examination of sector-relevance of findings** in order to develop guidance for use of the MUSM framework and accompanying interactive online materials.

This phase is described in Chapter 6, 7, 8 and 9.

The three-stage process outlined above forms a unique study into the potential of social media for LAMAs. This extended methodology chapter explains these three phases of research in further detail.

As this research conducts continual analysis, for ease of description this methodology is structured around the phases of research. In this chapter, the particular manifestation of a

method is discussed in relation to its use at a particular point in the research process. If a method is used again, but in an altered form, this is also described.

2.2 Methodological considerations

Despite being rooted in real world examples the research for this thesis is not solely practitioner-led. It brings together research from the areas of museums studies, heritage studies, and technology studies with practice-based findings from sector project work and professional experience. The development of the research question and the modes for examination of the complex context of LAMAs today is motivated by recent work around methodologies as ways to break down boundaries between the worlds of theoretical research and of context-specific practice (Nelson, 2013: 99-100).

This methodology is designed to generate theory by combining context-dependent experience with context-independent theoretical enquiry (Flyvbjerg, 2006: 221). This research takes a predominately qualitative approach, as defined by Creswell (2008). Several methods are necessarily employed during each phase of the research (Yin, 2014), due to the study involving contemporary organisations operating within a real-world context (Van de Ven & Poole, 2005: 1379). As the research is inductive and iterative, major theoretical assumptions underpinning the analysis are re-examined at points throughout the research process. Re-evaluating the methodology throughout the research process improves awareness of context. This improvisation is enacted through experience that incorporates Silverman's recommendations of: "*time, trial, and error*" (2013: 124).

The outcomes of this research focus on improving involvement in technology use within LAMAs. As such, the focus of methods is participative. The emphasis on participation is also prompted by the trend in the museums sector towards identifying participative modes of exhibitions design (Brown, 2008; Bowen, *et al.*, 2010; Finnis & Kennedy, 2010; Romeo & Waterson, 2010; Simon, 2010; Belcher, 2012; Kirchberg & Tröndle, 2012; Blankenberg, 2013). There is less evidence for the use of participation online in activities integral to the work of museums, such as collections care. This is explored in the thesis.

Throughout the research process, work undertaken at HCT incorporates approaches used in participatory design. Participatory design is predominately used for public space design (Bratteteig & Wagner, 2014), management of positive collaboration in the workplace (Nilsen, *et*

al., 2012), and more recently for software design (Simonsen & Robertson, 2013). It is not common in heritage related projects. There are approaches that take a similar, yet less collaborative stance, such as co-design (De Felicie, 2013; Neal & Roskams, 2013), and the participative museum model (Simon, 2010), and these are critically examined in the thesis. Exploring the potential of participatory design practices for Web use in local museums is a key future development of the research carried out for this thesis, and potential impacts are discussed in the concluding chapter.

The research described in this thesis uses principles from participative design to develop a more realistic model for Web use within LAMAs. This participative approach is appropriate due to the nature of social media as a technology with affordances that can benefit from improving user involvement in design and of LAMAs as institutions that specialise in the provision of public space and incorporating co-design into practice. The research carried out at the partner organisation is therefore participatory in nature. As knowledge is embedded within a local context (Hughes, 2003), this is therefore an appropriate methodology for the situation of this research.

2.2.1 Interrogating interpretation through the partner organisation

In this thesis, social media activities in the cultural heritage sector are examined from the bottom upwards. This is facilitated through the relationship with the partner organisation of HCT, developed over the course of the research process. For the purposes of this research, HCT enables the implementation of this approach in a context-dependent environment to test the viability of such a methodology for LAMAs. The main approach in the implementation of bottom-up working is through reflexivity of practice and a relational approach to action research. This is outlined in more detail in section 2.2.2.

Exploratory research can lead to profound understanding of the organisation being studied (Salmons, 2015). This can enable generalisation if flexibility is designed into the work. The approach of working with HCT filled gaps in theories (Siggelkow, 2007). The research at HCT was not tested against a hypothesis as to do so may have narrowed the scope of the findings and reduced discovery of new phenomenon (Stebbins, 2001: 24; Pickard, 2013). Instead an approach of analytical conceptualisation was employed (Gomm, *et al.*, 2000). This was enabled by case-specific scenario planning for HCT which provided a way to future map strategic planning (Mason & Herman, 2003), in order to improve use of social media. The methods for implementation of this approach, such as regular exercises to ensure groundedness of findings, and iterative design of research practice, are discussed throughout section 2.3 of this chapter.

HCT is made up of more than 100 staff and over 400 volunteers, caring for more than 2.5 million objects (HCT, 2014a). Although these seem like high numbers, the individual community museums under the care of the organisation tend to have quite low staff levels in line with the average local museum (ACE, *et al.*, 2006) and the archaeological archives are managed by one single permanent full-time employee with much work being carried out by volunteers.

At the beginning of the PhD in October 2011, the archaeological archives which form a major focus of this research were under the care of Hampshire County Council Art and Museums Service (HCCAMS). The research intended to focus on the archaeological archive housed at Chilcomb House, a converted farm used by Hampshire County Council (HCC) as the headquarters for the arts and museums services, and in the community museums run by HCCAMS. On the 1st November 2014, HCT formally took responsibility for the venues and associated collections.

Transference of responsibility of collections to HCT in the last few months of this research provided an opportunity to study how organisational change impacts on the use of Web-based tools and resources for access to archaeological archives. HCT took on collections from HCCAMS but also incorporates the collections from Winchester City Council. However, as there have been no staff changes in the team who care for the archaeological archives, it was possible to incorporate the shift in focus from local authority service to trust as part of the iterative design of the methodology.

2.2.2 Theoretical standpoints

Central to the identification of methods for research described in this thesis, is the need to respond to the current trend in top-down approaches to commissioning of technology by LAMAs. This is achieved by engaging with communities and individuals in a bottom-up manner. This is particularly significant in relation to the evaluation of examples of practice and the action research carried out at HCT. The relationship with HCT is informed by Lave's work on social practice theory (2011), and the use of critical ethnographic research. In the case of social media, there is an assumption in the museums sector that there are little or no skill requirements for use of these technologies in comparison to other digital technologies. This is reflected in training and resources which tend to focus predominately on the need for marketing and communication skills as applied to specific tools. As an example, advice for copy editing within the 140 character limitation of message sharing platform Twitter. Successful use of social media requires negotiation of the landscape of the Web and this requires awareness of the context within which

social media operates. In the example of Twitter, awareness of the algorithmic approaches used for content recommendation to users such as content features and hashtags can result in increased information diffusion (Chen, *et al.*, 2010). The research described in this thesis will investigate ways to enable informed use of social media.

This thesis argues that the Web cannot be understood away from the socio-technical system within which it is applied (Wajcman, 2007). This research is based therefore on an augmentation of Suchman's idea of the intra-action between technology and humans as being: "*The sense in which subjects and objects emerge through their encounters with each other*" (2007: 267). As a result of this theoretical standpoint, this research constructs a view from within LAMAs, looking outwards. This approach underlies the development of a framework for practice by LAMAs that enables improved experience of mediation through the Web. The framework is embedded in a focus on connections between people rather than collections. This is inspired by Ingold's ideas on environment constituted of *actants* which reveal environment through relationships (2000). From this, the experience of enactment is central to engaging with local heritage through the Web.

In addition to this, the Web is conceived as a participative space throughout. This is supported by J. Bennett's work on assemblages (2005). From this, a model of the Web as assemblage is built, focusing on actants that make up the Web through experience (DeLanda, 2006: 18-19). This is a response to current focus on content, such as websites. Actants make up the Web through experience, and this is a deviation from more commonly adopted approaches in which the Web is perceived as a network (Berners-Lee, 1999; Tan, 2013), or alternatively as an organism with a rhizomatic structure (Deleuze & Guattari, 1987; Knutson, 2013: 95). Enhancing readings of the Web as something that comes into being through action can improve current approaches in the museums sector to coping with the Web as a facilitator of information gathering and knowledge building, particularly in the area of heritage experience.

In order to understand the use of social media by local museums, the combined perspective described above, that considers network dynamics and cultural conditions together, is applied throughout the thesis. This informs all activities, including selection of examples of practice and identification of current approaches to social media.

2.2.3 Reflexivity in practice

The research described in this thesis is based in social practice theory, motivated particularly by Lave's notion of situated activity where the world is understood through an ongoing relational approach which acknowledges: "*The inseparability of situated practices and their associated meanings and powers relations*" (2011: 296). The relational approach of this thesis enables ongoing enactment of experience with the Web by museum practitioners as well as by myself, through constitutional practice (Fairclough, 2009; Johnston, 2010; Lave, 2011: 296; McNamee & Hosking, 2012). By working alongside museum professionals at HCT, we have developed skills that manifested in a way best described by Ingold in discussion of technical skills (2000: 290) as part of a matrix from which we reveal the world. The research with HCT tests how social media can be seen as an *actant* within an assemblage made up of content, networks of people, and tools. It also tests how far engagement with social media as an actant can enable enhancement of heritage experience. This is based on findings described in the first two phases of the research and the resultant skills that are described in reflexive researcher statements (Appendix A, V, and W).

The reflexive statements discuss the development of the process of research grounded in my work with HCT. I use an approach similar to Lave, who ends each chapter of her book on apprenticeships with a commentary which describes how the process of research has developed (2012: 165). At the beginning of phase one, and the end of phase two and three of the research, I reflect on how my experience of research is changing through practice. As my perspective onto the research topics develops, the reader is provided with accounts of how the process of research is being transformed through my experience with the theoretical approaches and methodologies. I reflect also on the impact of organisations, community and individual practice on this experience (Kleinsasser, 2000; Guillemin & Gillam, 2004). The account that runs through the thesis acts as a reflection on my own journey through the PhD, and this is evidenced in the reflexive statements.

The relationality of my personal experience with HCT, including my historical experience as an employee of HCCAMS from 2008 to 2010, is examined in detail in the first reflexive researcher statement in Appendix A. I have a developed understanding of the make-up and use of archaeological archives from the perspective of a practitioner within archaeology, a museums professional, and as a heritage researcher. Appendix A outlines my current position as an archaeologist working in partnership with HCT site in a professional capacity. This experience of archaeological collections means that I am well-placed to conduct an appraisal of the context of archaeological archives within local authority museums.

I began a community-based training excavation at Basing House in 2011 and this coincided with the beginning of the research described in this thesis. Basing House is an outdoor heritage site managed by HCT. I have co-directed an annual archaeology field-school at this site since 2012. I have carried out additional investigations alongside the University of Southampton and HCT as part of undergraduate student training for skills such as geophysical survey and archival methods for stored museum collections. My experience at Basing House impacts on my relationship with staff and volunteers at HCT, and with my own interpretation of research carried out there. Appendix A acts as a biography box (Finlay & Gough, 2003: 10). It provides a personal reflection on researcher significance and positioning. Management of the relationship between researcher and participant requires explicit awareness of actual practice, rather than practice as it is perceived. This is highlighted by Kemmis and McTaggart to involve participation in practice, and to emphasise particularity through: “...*learning about real, material, concrete*” (2005: 276). The major approach of this research is therefore participative and this is echoed in the focus on the particular needs of HCT to achieve real participation by developing methodological approaches to aims and objectives setting.

2.3 Methods applied to the research process

The methodology described in this chapter reflects the three discrete phases in the research process introduced in Chapter 1. Section 2.3 describes methods of data collection, analysis and synthesis employed as part of this research. The use of methods as part of the research process are illustrated in figure 4 overleaf.

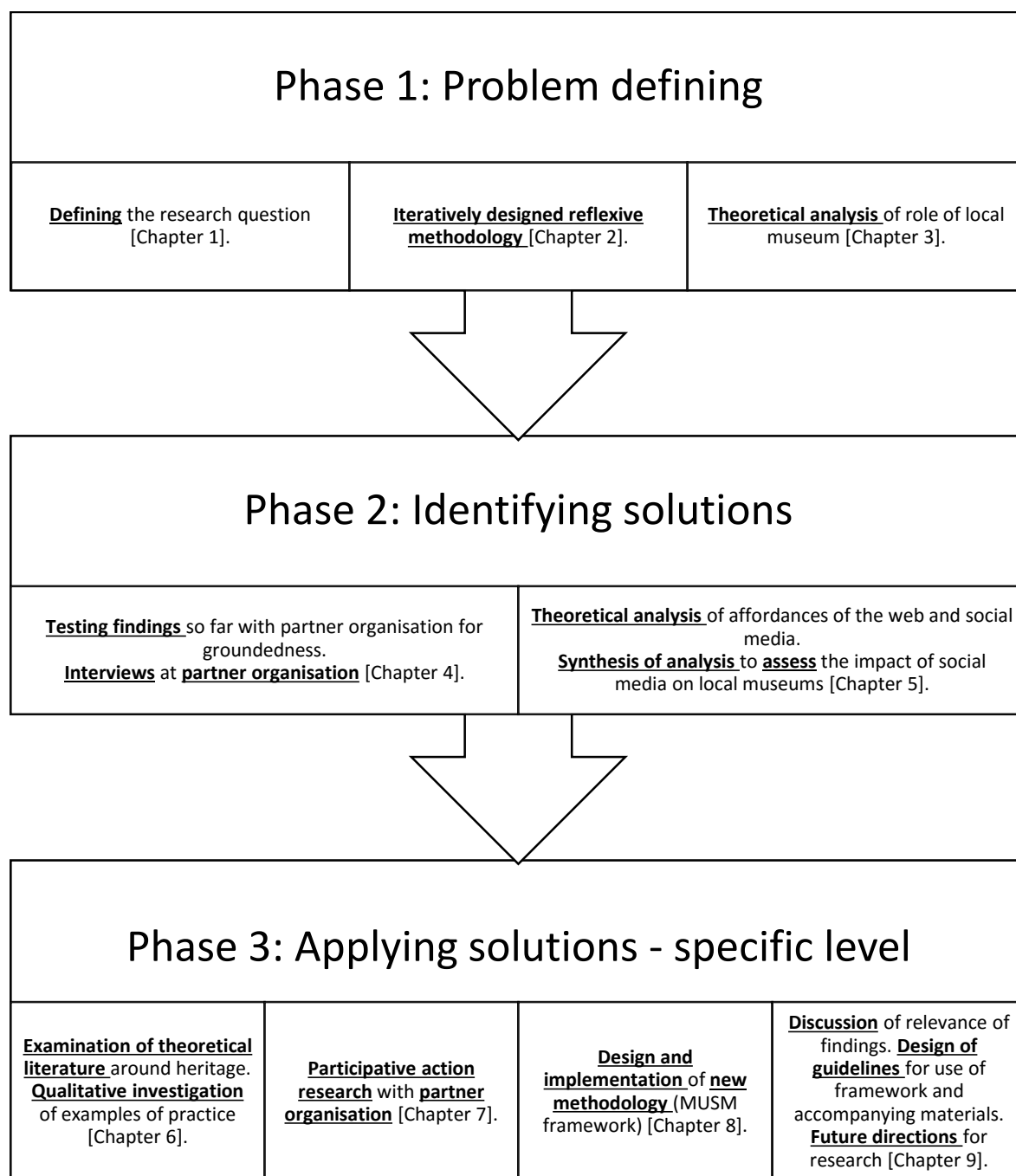


Figure 4 - Research outline. Methods employed at each stage of research are highlighted bold.

2.4 Phase 1 - Defining the problem

In phase one, this research develops the assertion that the role of LAMAs in society today cannot be understood away from an examination of the impact of technology on people's expectations of museums. Development of a contextual understanding of local authority affiliated museums and

independent museums aligned with local government is necessary as this focuses the research process towards issues specifically manifest in local museums.

2.4.1 Defining the research question and methodology (Chapters 1 and 2)

Methods: Reflexive statement, theory building

The research question is developed reflexively, in acknowledgement of my own experience of LAMAs. I am an archaeologist and a museums practitioner with experience working in UK local authority museums, most recently at venues that are part of the partner organisation of HCT (2008-2010). The research described below is therefore necessarily inductive, theory generating, and reflexive (McIntyre, 2008). A reflexive statement regarding my position as a researcher and the evolving relationship with HCT accompanies this chapter (Appendix A).

This chapter forms the initial overview of the methodology which focuses on justifying and evaluating methods used for this research. As the research is inductive and reflexive (Baym, 2006), the process is reviewed throughout the thesis. Justifications of methods and approaches are considered within the chapters. Instances of reflection of the methodology as they occur in the process are highlighted in the reflexive statements.

2.4.2 Analysis of context (Chapter 3)

Methods: Theoretical analysis of literature, online research methods

Theoretical analysis of professional and academic literature and also online resources is undertaken in Chapter 3 to develop better understanding of the role of LAMAs in contemporary society. A picture of current context for LAMAs is built up through analysis of issues. First, attitudes of museum practitioners, governing bodies, and the public are considered through exploration of literature from the museums sector as well as documentation from additional sources including central government and social sciences research. Second, current challenges for museums with archaeology collections are considered. There is particular consideration of challenges associated with facilitating positive public and community relationships with archaeology through the Web (Copeland, 2004; Crooke, 2010).

Perspectives from research into the relationship between communities and heritage are examined (Ashworth, 1994; Lumley, 2005; Ahmed, 2006; Emerick, 2009). This informs the development of a methodology for the realignment of local museums towards local heritage

online. Research into the use of the Web for interpretation and representation of local heritage is examined (James, 1997: 46; Dyke, 2006). This advanced description of context improves the integrity of research carried out at HCT and the identification of examples of best practice (Hyett, *et al.*, 2014).

The examination of context serves to define the limitations of the research carried out at HCT. From the perspective of practice, this includes analysis of literature from governing and funding bodies in the cultural heritage sector. Policy documents, legislation, statements, reports and white papers are analysed. For organisations, reports and case study accounts as well as the outputs from activities, such as social media accounts and websites, are examined. Pre-understandings and conceptualisations of the area of study are explicitly acknowledged in the chapters. This reduces the impact of assumptions, as advised by Alvesson (2002: 3).

This thesis examines the appropriation by museum studies and heritage studies of methodologies for use of the Web. These methodologies have typically been adapted from the area of technology studies and computer science, and allied research from disciplines such as sociology. Literature from these disciplines is therefore analysed. The analysis clarifies the underpinning pressures that compound difficulties experienced by LAMAs using social media to achieve local level objectives and respond to changes in the role they play within society. Conclusions from the analysis support identification of examples of practice for extended research in phases two and three of the research.

2.5 Phase 2 - Identifying solutions

In phase two, the research process takes a bottom-up approach to knowledge creation, with emphasis on working with museum practitioners to develop insights. An appraisal of the current implementation of social media by museums is carried out through a Web-based review. This phase of investigation combines bodies of literature not previously considered together with online research into applications of social media. Analysis of documentation, online research, observation, in-depth semi-structured interviews, and participative action research took place at the partner organisation between June 2012 and June 2014. Research carried out at the partner organisation spans phases two and three of this research. Interviews conducted are listed in Appendix N.

2.5.1 Ensuring groundedness through contextual research (Chapter 4)

Methods: Observation, interviews, desk-based research, participatory action research

An insider's perspective of the partner organisation is achieved through participative action research as a way to overcome the limitations of the definition of technology discussed in section 2.2.2 which does not currently allow for understanding of how the Web can be used by local museums. A nuanced understanding of the practices within which the Web could fit, identified in the first phase of research, is developed throughout this thesis.

The initial stage of work at HCT included an evaluation of the organisation's current use of social media as attitudes to the Web. This incorporated a desk-based assessment of HCT's use of the Web to date, with exploratory research at the archaeology collections stores. In-depth semi-structured interviews were carried out with paid staff at the partner organisation who have responsibility for Web use and also staff with responsibility for the archaeology collections. These methods are described in detail below.

2.5.1.1 Online research

Analysis of online sources, including museums' social media user accounts and websites is self-reflexive. The reflexivity of the process employed to carry out a Web-based analysis of the context for social media use by LAMAs is based on Baym's strengths for culturally-oriented research on the Web (2006: 82). This includes ensuring research online is grounded in theory, demonstrates consistency in data collection, uses multiple strategies, considers participants' perspectives, and considers the interconnectedness of the Web and society (*op cit.*). To achieve this, the research process for this thesis is conducted in acknowledgement of Kozinets' methodological guidelines for Internet based research, as a: "*culturally-oriented study of technologically-mediated social interaction*" (2010: 3, 158). Findings are tested against the context-specific instance of HCT in order to evaluate assumptions in a real world scenario. HCT provides an opportunity to study a museums service that is experiencing significant change, and is therefore a good candidate to consider barriers to uptake of new technology-based solutions to problems.

2.5.1.2 Observation as participation

To evaluate what had occurred at HCT to date, secondary data analysis of documents relating to HCT was combined with existing online instances of Web and social media use. This resulted in the social media audit in Appendix I. In addition to this, time was spent HCT carrying out

participation as observation. To understand what was happening when social media was used, note-taking occurred during observation and whilst taking part in activities. This was often not practicable during participation which was built up throughout the research process (Wicks & Reason, 2009). Often notetaking was undertaken asynchronously during breaks and at the end of the working day. Observation led to appropriate participants being identified and contacted directly, reducing the risk of a narrow view into the organisation.

As a basis for the approach to observation at HCT, Schein's model of observation was employed (2013). This is particularly useful as a way to ensure reflectiveness of analysis. A modified version of this model was applied to observation, when interviewing, and when carrying out activities.

The model used has four cyclical steps:

- Step 1: Interaction / Observation – activity, observation or interview is carried out
- Step 2: Reaction – initial reaction to what was observed
- Step 3: Judgement – analysis of observation and initial reaction to interpret observation
- Step 4: Intervention – follow-up action as a reaction to what was observed.

As the research process was based on exploring individual practice, intervention led to further observation and further participation in activities, see figure 5 below.

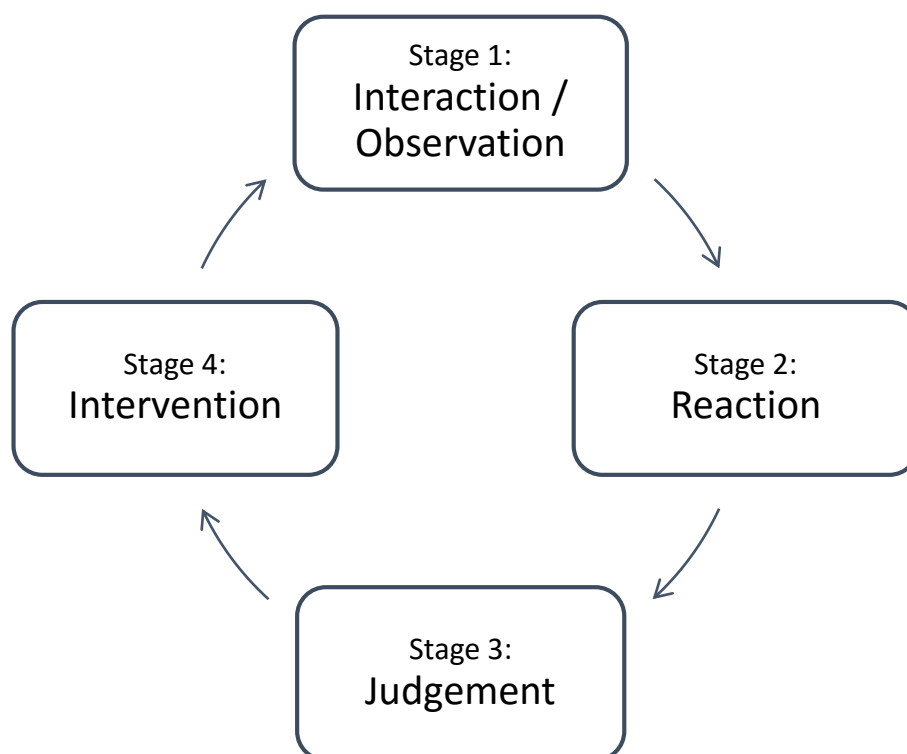


Figure 5 - Model used for analysis, based on Schein's model of observation (2013).

2.5.1.3 *In-depth semi-structured interviews*

Findings from observation were developed upon through in-depth semi-structured interviews with paid staff at HCT and later with volunteers in the archaeology stores to confirm context. These interviews intended to define what participants classified as *successful* social media use. Participants commented on use of social media to date. Particular attention was given to attitudes of Web use for achievement of organisational objectives. Findings were compared to sector-wide opinion and to notions of success from analogous sectors. This informed the social media audit in Appendix I.

Initial interviewees were the Curator for Archaeology (CoA) and the Digital Collections Officer (DCO). These individuals were identified through my own knowledge of the organisation (King & Horrock, 2010: 31). In the initial stages of the research, the CoA and DCO identified the Marketing Officer (MO) as a useful participant. In this way, they acted as informal gatekeepers in identification of participants (Seidman, 2013: 49). Interviews carried out at HCT were initially in-depth and semi-structured. These later became more free-form as relationships with individuals developed.

Initial interviews were semi-structured in order to guide discussion rigidly so that relevant topics were covered and to improve the comparability of initial responses to questions (Rowley, 2012). In order to structure questions about individual practice of social media within LAMAs, they were designed using Davies *et al.*'s categories of influence on practice (2000). The categories also shaped interactions and are illustrated in figure 6 overleaf. The interview schedule is included in Appendix B.

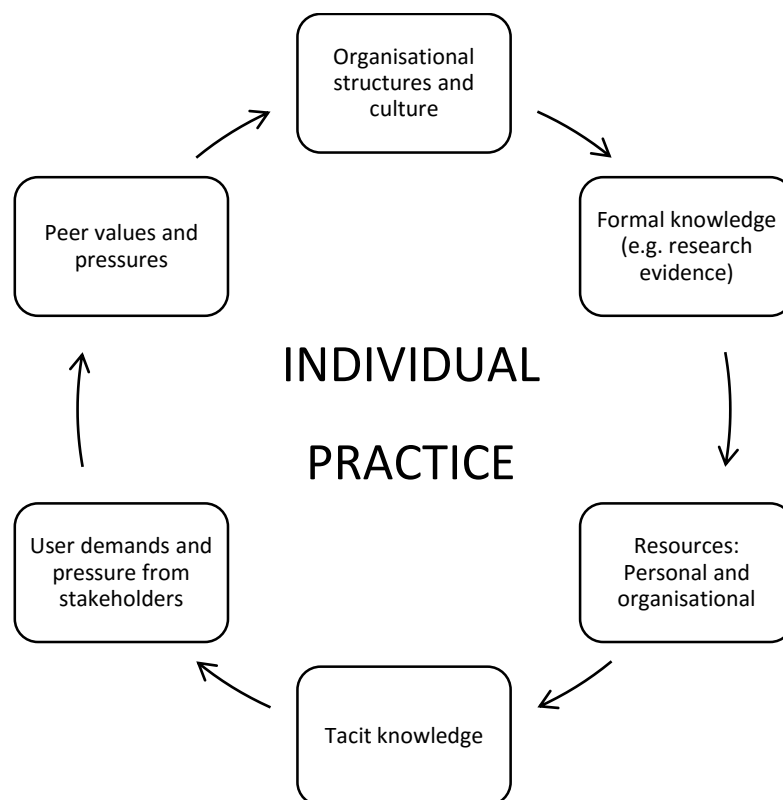


Figure 6 - The context for evidence-based practitioners, showing categories of influence on practice, adapted from Davies *et al.* (2000: 15).

For the semi-structured interviews, audio was recorded and analysed. When interviews were recorded using a digital recorder, they were transcribed within two weeks of the meeting to ensure freshness of memory. For the first few interviews, success of the recorded interviews was limited by the participants' nervousness of the presence of the digital recorder (McLellan, *et al.*, 2003). During successive interviews with a digital recorder more time was spent explaining the presence of the recorder in order to reduce reluctance to speak "*on record*" (Harvey, 2011). As interviews were carried out in the field, there was often ambient noise (McLellan, *et al.*, 2003). This necessitated additional note-taking to ensure information was not lost. Transcription of interviews from recordings and fieldnotes occurred throughout the research and these were revisited at various points as knowledge of HCT developed. The transcribed interviews are listed in Appendix N.

2.5.1.4 Analysis of data

In order to generalise in a meaningful way and to build knowledge from interviews and observation at HCT, thick description was used. Analytical viewpoints onto the interview data and observation data support the use of *ad verbatim* when it occurs. The thick description builds up a

picture of the culture context and setting (Holloway, 1997, 154). Findings from observation, interviews and action research take into consideration Gubrium and Holstein's notion of interviews as a way of contemporary storytelling (1997). This was also used to implement the intervention stage of the observation model outlined above. I followed observation and activities with free-form interviews with participants where I described my observation and examples of practice that supported alternative approaches to social media use. As thick description is part of the analytical process, analysis is conducted using a cyclical approach to information gathering illustrated in figure 6 above. This allowed participants to comment on interpretations, as per Kvale's ideal model for interviews (1996: 190). The seven major components of interviews were used to structure the data gathering and analysis (*ibid.*: 88). Most of the interviews were open-ended as advised by Yin (2012: 12), in order to maximise opportunity to discover new knowledge. The analysis of qualitative data gathered during the course of the research uses Saldaña's codes-to-theory model (2009: 12). The process is outlined in figure 7 below.

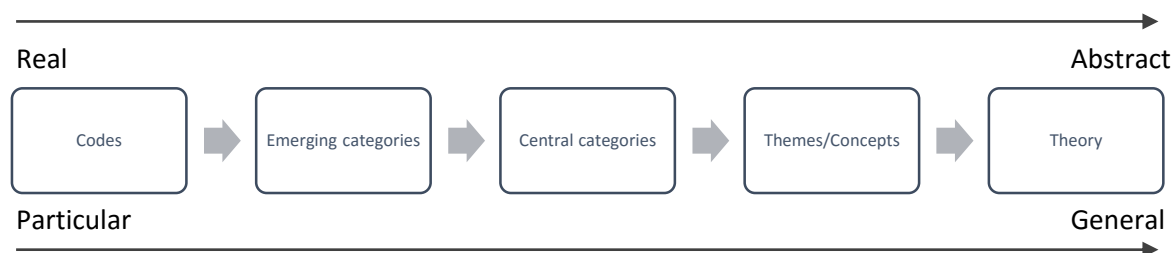


Figure 7 - The process used to generate themes and theory through coding transcripts and notes. This is based on Saldaña's codes-to-theory model for qualitative data analysis (2009: 12, figure 1.1.).

The software NVIVO was used to analyse interview transcripts and notes from activities. The codification used concepts developed from Chapter 3 and 5 to identify data relating to the role of LAMAs and attitudes towards the Web and social media, and was based on Saldaña's process in figure 7 above. The codes considered both conditions and consequences (Corbin & Strauss, 2015: 156-158). The NVIVO codes are included in Appendix R.

Coding in NVIVO was the initial stage of analysis (Basit, 2003). A mixture of value coding and descriptive coding was used to capture maximum usefulness from interviews. Throughout the coding process, Sipe and Ghiso's advice that personal subjectivities and judgements are manifest in all coding of qualitative interviews was considered (2004: 483). As this research is theory-generating and the methodology is iterative, the codes (and therefore transcripts) were revisited and added to over the course of the research process.

The emerging categories led to theory generation. These were tested against later stages of the research process. After the initial phase of research with HCT, theoretical literature was interrogated to improve reliability of findings so far, and to identify the underlying reasons for the observed phenomena. This next step is described below.

2.5.2 Defining the affordances of social media and its relationship with the Web (Chapter 5)

Methods: Theoretical literature analysis, online research methods

From the first phase of research with HCT, theoretical analysis of Web-based projects in the museums sector was carried out in order to confirm statements so far. This analysis identified that a fundamental division has existed in the museums sector's use of social Web technologies between intention, implementation and results (Finnis, *et al.* 2011). This is because longitudinal research has not yet been possible due to the newness of social media use in the cultural heritage sector and there are few studies that span the diverse fields of research included in this thesis.

Chapter 5 analyses the context-independent setting of the Web in order to develop robust understanding of the impact of this technology on museums. This chapter establishes the principle that the Web is only present when technologically mediated encounters between people occur. This means that experiences of the Web are grounded in repeated creation of communities through use of tools and platforms online. This approach to the Web is grounded in a model of technology as being understood from a combined perspective. This standpoint combines interpretation of the processes that enable networked systems with analysis of cultural practices that effect interactions through participatory media (Langlois, 2012). This is discussed above in section 2.2. Chapter 5 examines underlying reasons why LAMAs may not be strategically aligning social media use to major aims.

2.6 Phase 3 – Applying solutions - Specific level (ongoing context)

As a final phase of the research, the MUSM framework is developed from analysis of case studies of instances of creative digital technology uptake by cultural heritage organisations. 18 potential case studies are examined. From these, three in-depth studies are carried out. Examples of practice are used because this is a well-established mode for increasing uptake of new tools

within the museums sector (Bennett, 1995; Knell, *et al.*, 2011; Dawson, 2013; Marty, *et al.*, 2013; McCall & Gray, 2014).

Findings from the case studies are tested through participative action research at the partner organisation in order ensure groundedness of findings and to consider real-world implementation. Solutions for implementation are evaluated at HCT. From analysis of the evaluation, the Museums Use Social Media (MUSM) framework is designed.

2.6.1 Leveraging the opportunity of heritage: Identifying and evaluating examples of practice (Chapter 6)

Methods: Interviews, desk-based research, online research methods, case studies, storytelling, fieldnotes

This thesis examines current perceptions of social media within the museums sector by examining practical implementation of social media against pre-identified organisation-specific strategic goals. This research evaluates current use of social media via the examination of examples of practice. Case studies are identified through focused snowball sampling in the cultural heritage sector. Examples of practice are an appropriate method for this phase of the research and reduce the need for the production of alternatives within organisations (Bryson, *et al.*, 1990). This in turn improves success rates of ventures when implemented.

Three stages of identification of case studies were carried out that were in line with the inductive nature of the research. As the research is theory-generating, the identification of case studies incorporates findings as a motivation for evaluation. From the initial 18 case studies, three major case studies were evaluated in depth. The 18 mini case studies support the design of the MUSM framework and evaluation of context-specific solutions at HCT. The major contribution of each mini case study is found in Appendix P and on the website: <http://www.localmuseums.org/>

2.6.1.1 First stage of identification: Knowledge building activities

Retrieval methods for examples of practice were based on Higgins and Green (2011), and used current models for publication of best practice instances from the museums sector (Wavell, *et al.*, 2002; Evidence for Policy and Practice Information and Coordinating Centre, 2007; Hidalgo Landa, *et al.*, 2011; Cairns, 2012b). Identification included systematic searches of bibliographic databases, such as subject-specific and regional, and non-bibliographic databases, such as journals,

conferences and Web searching, as well as unpublished and ongoing projects via professional discussion groups and Web-based institutional resources.

This research contributes to academic knowledge about social media and curatorial practice, and is also applicable within the professional sector. Practitioners within this area are therefore key stakeholders for this research and examples of practice were identified with museum practitioners in mind. This is because the research findings are bound up in the terms of reference to technology uptake within the sector. As a response to the significance of practitioners, snowball sampling was employed to identify examples of practice (Taylor, *et al.*, 2011: 458), as well as structured activities that led to example identification, these are described below.

Examining responses and reactions to social media projects within the museums sector contributed to building a picture of sectoral approaches to social media use. The identification of examples of practice was guided by recommendations of particular projects and organisations by online communities for technologists in the museums sector. This snowball sampling strategy allows for the spontaneous identification of appropriate experiences of practice. This results in increased experience of the researcher in field knowledge, which improves groundedness of analysis (Kozinets, 2010: 166).

As an initial fact-finding exercise, a period of intensive attendance at events within the museums sector and archaeology sector that were focused on the use of technology was undertaken in order to meet with practitioners working in the area of technology and museums. This period of networking resulted in a more developed view of notions of successful technology use within the sector. In order to gain a more in-depth understanding of the implications of social media for LAMAs, I ran an event in order to meet and discuss instances of social media use with practitioners. I organised a session alongside a fellow research student at the annual international conference, Computer Applications and Quantitative Methods in Archaeology (CAA2014, Paris, 22nd-25th April 2014). Of the nine papers presented at the session, two represented a substantial innovation in social media use within a context appropriate for this research. The abstracts for the presentations are included as Appendix C and the presentations from the session are online, as part of a showcase that I created (<https://blog.soton.ac.uk/comarch/>). Two of the projects are included in the case studies analysis in Appendix P.

The session enabled me to construct a view into the different kinds of projects that were occurring within archaeology which complimented my own professionally derived perspective on the use of technology in the museums sector. See Appendix W for a reflection on this process.

This research focuses on local authority managed museums with archaeology collections in the UK and so the research began with an investigation into UK based examples of practice. The dataset of examples of practice with social media by different types of museums in the UK provided significant evidence of the applied implementation of social media. There was a need however to identify further instances of practice that dealt with community and individual interest in a way that responded to concerns of LAMAs identified in the first phase of this research. Extending the sampling strategy improves understanding of the current incompatibility of LAMAs to engage with social media on terms based in audience focused aims. The second stage of identification explored the potential of the Web to support a refocus of social media use by LAMAs onto multivariate, shifting, and highly individual needs of people through interest rather than categorisation.

2.6.1.2 *Second stage of identification: Research-led directions*

In the initial phase of research, differences in approaches to engaging with communities were identified between North America and the UK. In the USA and Canada, community engagement activities online seemed to be less closely aligned to agendas for localism that use top-down approaches to policy implementation. This could be due to the differing approaches to accommodating perceived needs of communities. Findings from Chapter 3, 4 and 5 seemed to identify that over-reliance on categorisation of people may be slowing innovation in social media use. The first phase of research identified that the top-down approach was shaping social media uptake by LAMAs by means of predefined audiences not present online in recognisable forms. In the UK approaches to programming in social media tend to be driven more by local government agendas for engaging specific groups, defined at a national level (McCarvill, 2012).

As this research is responsive, in addition to the UK based case studies, examples of practice from North America were identified. I carried out analysis of professional special interest groups in the museums sector that support technology use in museums. These included:

- Museums Computer Network (MCN)
- Museums and the Web
- Archives and Museums Informatics

- American Alliance of Museums (AAM) Media and Technology Committee
- Museums Computer Group (MCG)

The additional projects were identified through snowball sampling of the online presence of museums online and through recommendations by museum technology practitioners within the special interest groups. The validity of the best practice case studies was cross-referenced through systematic searches of relevant databases and datasets to ensure relevance and to determine levels of reputation of examples within the appropriate sector, for instance, positive mass media coverage. 17 potential projects were identified and examined for their potential as best practices examples for the effective and creative approaches to digital technology use by heritage organisations in order to support the aims of local museums. The 17 provisional case studies are listed below:

1. Britain from Above Project
2. Rijksmuseum, Rijksstudio
3. Los Angeles County Museum of Art, Snapchat and Walker Art Gallery, Only in Merseyside
4. Royal Albert Memorial Museum and Art Gallery, Application Program Interface (API) and Exploring Surrey's Past, API
5. Europeana metadata index
6. Teylers Museum, Ning and Brooklyn Museum, 1stFans in Meetup
7. Wikimedia Commons, Wiki Loves Monuments event
8. Royal Albert Memorial Museum and Art Gallery, Moor Stories project
9. Open Plaques
10. Museum of Archaeology and Anthropology, Drupal
11. Retronaut and Shorpy
12. British Museum, MicroPasts project
13. Open Government Data Portal
14. Glasgow School of Art, ACCORD Project
15. United States Holocaust Memorial Museum, Remember Me? project
16. Museum of Anthropology, University of British Columbia, Reciprocal Research Network
17. York Past & Present, Facebook Group

The contribution of these case studies to the research are described in Appendix P.

2.6.1.3 *Third stage of identification: Internal recommendations*

During the initial data gathering with organisations represented through the case studies, and through online research, one particular group of museums stood out as an exceptional example of LAMA adoption of technology. York Museums Trust (YMT) was mentioned in several instances when talking with practitioners within local museums. Other examples of practice were from museums with a national or international focus, and so the regional example of YMT provides a direct observation of the knowledge gained from phases one two of the research, rather than inference from general to specific. YMT presented an opportunity to test findings so far against an organisation held up as an example of a successfully operating non-profit organisation making use of the Web to achieve aims (Winckworth Sherwood, 2010: 31).

2.6.1.4 *Case studies evaluation*

Analysis of the case studies incorporated primary and desk-based studies combined with culturally-oriented analysis of online activities using Kozinet's netnography methodology (2010: 3). This included travelling to several organisations and meeting with key participants in projects. From this, narrative analysis of fieldnotes was carried out (Clifford, 1990; Hodder, 1997; Everett & Barrett, 2009; Kaufmann, 2011; Lichtman, 2013).

As part of the examination of the three best practice case studies, in-depth semi-structured and free-form interviews and also discussions were carried out with 2 museum practitioners based in the UK and with 6 museum practitioners in Canada and the USA. The interviews were recorded through note-taking, and pertinent points were transcribed directly after the meeting. The historical case studies informed the action research carried out at HCT and methods for analysis were based on Baxter and Jack's advice for case study research (Baxter & Jack, 2008: 548). This was combined in the analysis with Yin's steps to incorporate theory into analysis (2014: 9), and Merriam's instruction to use rich, thick description for analysis (2009: 43). Findings from the analysis were triangulated with interrogation of documentation and analysis of digital outputs from the case studies.

Table 6 below outlines the projects that were selected from the 17 potential case studies for further analysis, plus YMT. The table lists the representatives of these project that were contacted for participation and were interviewed in semi-structured interviews during visits to the USA and Canada in 2013 and 2014. UK-based interviews were carried out in 2014. The interviews that were conducted are listed in Appendix N.

Initiative, Organisation	Practitioners interviewed	Contribution to research
Remember Me? & Children of the Lodz Ghetto, United States Holocaust Museum	Jude Richter, Historian Elissa Frankle, Social Media Strategist and Community Manager Randolph Davis, Chief, Data Management Branch	The work being carried out by the team at the United States Holocaust Memorial Museum (USHMM) provided an opportunity to address some of the key issues for local museums use of the Web around focus on pre-defined audiences. The USHMM had been working closely with communities across the world to develop digital skills, and was making use of pre-existing social media tools to support this work. The Remember Me? Project and the Children of the Lodz Ghetto project in particular were responding to community-led needs.
Reciprocal Research Network, Museum of Anthropology, University of British Columbia	Susan Rowley, Curator of Public Archaeology Ryan Wallace, Software Designer Nicholas Jakobsen, Developer	The Museum of Anthropology (MOA) launched the custom-built Reciprocal Research Network (RRN) website in order to improve the modes of communication available between organisations and communities of interest. The objects cared for by the museums in the network could be discussed in private and public spaces and new interpretation could be associated with artefacts through the online system. The RRN was designed with a co-designed Memorandum of Understanding and represents a potential approach to improving the collaborative aspect of collections development work by local museums.
Google Art Project, Yorkshire Museum	Andrew Woods, Curator of Numismatics, Yorkshire Museum	The partnership between the Yorkshire Museum and Google Art Project has resulted in an aesthetic experience of parts of the collection that are not on display in the museum's galleries (a selection of coin hoards) and are problematic to curate online due to the reliance on context. The emphasis on the visual by Google Art Project, and partnering with a large Web-based corporation, raises some interesting questions regarding the future directions of online curatorial practice for local museums.

Open agenda for collections & Wikipedia in Residence, York Museums Trust	Pat Hadley, Wikipedian in Residence, York Museums Trust	YMT has recently moved to an open agenda, committing in the most recent Forward Plan (2012) to open up the collections online as far as possible through open licensing of digital content. This has far-reaching impacts on the potential reuse of content provided by YMT. One particular use-case is the Wikipedian in Residency in 2013 which attempted to encourage reuse of content. The Wikipedian has worked with the curatorial team of YMT to digitise specific parts of the collections, and the Wikipedia community has responded in several different ways to this outreach work. The case study provides an example of the challenges and opportunities that the open agenda can offer to local museums.

Table 6 – Interviews conducted with case studies participants

The data used to examine the examples of practice was derived from multiple evidence sources (Yin, 2012: 5). The use of multiple sources reduced the impact of researcher or interviewee biases on conclusions (Easton, 2010: 119). Through desk-based secondary data analysis and interviews with key participants, hypotheses developed during the initial stages of research were broken down and examined. This was to ensure that they were more robust for later stages of the work.

As evaluation is socially constructed and varies dependent on participants (Altheide & Johnson, 1994: 488), the context within which the evaluation was carried out is also reported in the chapter. Evaluation of practice includes reviews of project evaluation programmes in addition to interviews. This exercise is included in the discussion of examples of practice in Chapter 6.

Due to the exceptional nature of the YMT case study, in-depth semi-structured interviews with two participants from YMT were carried out in order to ensure that findings up to this point were significant in an organisation that was held up as an example of a successfully operating non-profit making use of the Web in alignment with organisational objectives. These interviews were recorded using a digital recorder, and were transcribed within a few weeks of the events. As above, comments were triangulated using documentation from YMT as well as observation of activities.

2.6.1.5 Narrative analysis over thematic analysis

For the initial phase of research at HCT, codification had been used to make sense of the data from interviews, see section 2.5.1.4 above. However, I found that the identification of key

concepts was restrictive and did not allow for depth of analysis. This need to use additional methods to improve results derived from coding of transcripts has been investigated by Frost *et al.* (2010). Instead, the approach used narrative analysis instead of thematic analysis. This was based on Lichtman's advice on the use of qualitative data for inductive research (2013: 241-265). The use of narrative analysis was more in keeping with methods for reporting of research common in the cultural heritage sector (Everett & Barrett, 2009).

The practice of storytelling by participants in the research provided a new view into experiences. I found this to be a method with which meaning could be built in a manner that Kaufmann describes as a: "*post-structural analytic approach*" (2011). Coding was only useful so far for the identification of concepts that were apparent as people *said* things. Developing analysis to incorporate a post-structural approach allowed for the consideration of things that were *not* said. This is driven by Kaufmann's assertion that post-structural narrative analysis allows researchers to look at: "*the local rather than the universal*" (2011).

Instead of recording interviews with participants, conversations about particular projects were recorded using fieldnotes. Stories are also used in the MUSM framework to provide insights into particular analyses. From this approach, and the incorporation of ad verbatim quotes from participants throughout the thesis, the transcripts from interviews are not included in this thesis. Instead the text from the analysed transcriptions are included in the appendices alongside the analysis.

As an archaeologist with several years of experience working on excavation and survey projects, I am very used to keeping detailed fieldnotes that incorporate thick description, and include preliminary interpretation and contextualisation, in the manner of Clifford's: "*interpretations all the way down*" (1990: 68). As an archaeologist, I am aware of the importance of reflexive working and in the inevitability of interpretation at "*the trowel's edge*" (Hodder, 1997: 693). In the initial phase of interviews at HCT, the analysis did not allow for this reflexivity. The use of storytelling to find meaning through local narrative rather than universal concepts led to more open-ended analysis. Examples of pages from my fieldnotes are included in Appendix D.

2.6.2 Designing context-specific objectives and evaluation: Participative action research with the partner organisation (Chapter 7)

Methods: Participative action research, observation, interviews, reflexive researcher statement

Building upon the theoretical basis of previous chapters, the final phase of the research proposes new sustainable and resilient approaches for social media use for museums. This is possible through the evaluation of the findings through the lens of the partner organisation. This thesis itself provides a workflow through which LAMAs can address issues with Web uptake.

Following analysis of the case studies, participative action research at HCT provides a detailed picture of the specific obstacles and opportunities afforded by social media at a context-specific level. In Chapter 7, HCT acts as a context-dependent setting in which to design, test and iteratively re-examine context-independent findings so far. Evaluation of findings so far were carried out through scenario planning at HCT (Chermack & Nimon, 2013). This is described in detail below.

Appendix V accompanies this chapter as the second reflexive researcher statement. Appendix V assesses the methodology and outlines iterative modifications that have occurred through action research at HCT. Appendix V also discusses the scope of the research, and influencing theories impacting on the identification of case studies. It reflects on my own assumptions and how these manifest in participative research at HCT. It outlines the changes to the methodology in relation to organisational change, volunteers, and specific events that have impacted findings so far.

2.6.2.1 *Participative action research*

The recursive design of the participative action research is based on McIntyre's model which questions, reflects, and investigates an issue, and then develops, implements, and refines an action plan (2008: 6). This cyclical process (see figure 7 below) was used throughout the research and took the form of multiple instances of visits, activities, interviews and discussions with employees at HCT. Each round of activities was followed up with a reassessment of the findings so far. The reassessment was used for the design of the Museums Use Social Media (MUSM) framework.

Solutions were proposed as responses to opportunities for social media identified in the activities. These solutions acted as field experiments, providing an additional phase of evaluation of conclusions made from the research so far. The field experiments were conceived as speculative design (Stewart & Claeys, 2011: 102). This approach enables the imagining of futures for HCT that would result in agile feedback and evaluation. Feedback on these proposals was then recorded and examined and the model revisited and refined. The process is illustrated in figure 8 below.

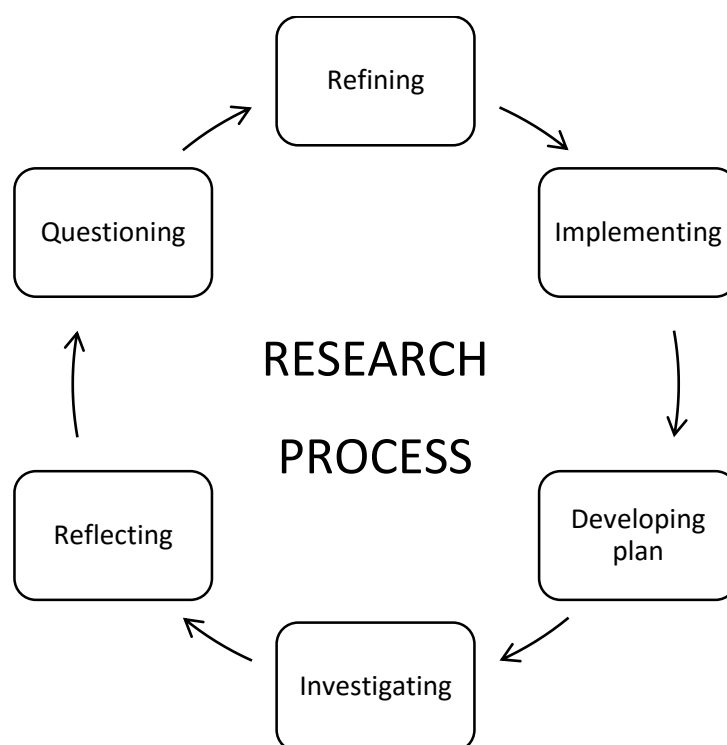


Figure 8 - The cyclical research process, adapted from McIntyre (2008: 6, figure 1)

The qualitative research carried out at HCT was adaptive (Yin, 2014: 94), and also reflexive. This meant that the combination of methods developed over time as the needs of the participants changed. Activities were planned around ongoing findings, in line with Bell and Nutt's recommendations for carrying out exploratory research with organisations (2012). Activities were carried out to inform research directions and methods. I responded to experiences as they occurred, and as a consequence was able to react to an opportunity to continue to work with HCT during a period of transition as it moved to trust status. Particular care was taken when analysing experiences at HCT between steps 1 and 2 of the model for analysis described above in figure 8 above in order to identify my personal initial emotional reaction and to consider my own agency whilst undertaking steps 3 and 4.

2.6.2.2 *Free-form interviews*

This later phase of interviews at HCT were free-form in comparison to the earlier semi-structured interviews in phase one. The unstructured approach came out of my increase in experience of conducting interviews (Bryman, 2001). It allowed for maximum creativity in responses (Denning, 2001; Kinchin, *et al.*, 2010). In some instances, interviews in this phase of the research were carried out over the course of a few hours with best practice examples and context-specific solutions discussed at length with individuals and sometimes with groups. In addition to these

interviews, participants had been communicated with whenever possible throughout the research process, as per Nock *et al.*'s advice on improving validity of findings (2007: 341). The second reflexive researcher statement discusses in detail the resources used to support the participative action research at HCT, see Appendix V, section V.7.

2.6.2.3 *Incorporating additional stakeholders: Acknowledging the contribution of volunteers*

The potential of volunteer engagement with the Web on behalf of LAMAs is a relatively new area for study. As such this thesis offers a new contribution to future working practice between volunteers, paid staff and governing bodies in the uptake of technology. Members of staff emphasised at several points in the initial interviews the importance of the contribution that volunteers made to the situation of the archaeology collections. As the research was iterative, focus was given therefore to this group of stakeholders. This is discussed in further detail in Appendix V, section V.7.5.

Volunteers were not originally identified as participants in interviews. It quickly became apparent, as familiarity with the daily routine at the archaeology stores increased, how integral to the work they were. All of the volunteers were therefore interviewed and also completed the digital skills evaluation described in Appendix E in order to gain a better understanding of their part in the digitisation of the archaeology collections at HCT.

This research deals with organisational level approaches to the Web in order to build a view from the inside. As such, my research focuses on LAMAs as a system made up of people, specifically actors for the organisation. These actors make decisions about the organisation's use of social media. These decisions are strategic level decisions, practical implementation of particular tools, standalone actions such as uploading a photograph. In the case of LAMAs, this includes:

- Governing bodies - Decision-making individuals who are responsible for policy implementation and high-level planning.
- Paid staff - On-the-ground staff members who are expected to implement changes in practice.
- Volunteers –Volunteers are unpaid individuals with varying motivations who contribute to the work of museums (Holmes, 2003; Edwards, 2005).

Partway through the research, this list was amended to include also individuals as part of communities. These individuals have the potential to contribute at all levels of decision making.

Currently, the actors in this system are related in a hierarchical manner through behaviours in social media, as is illustrated in figure 9 below.

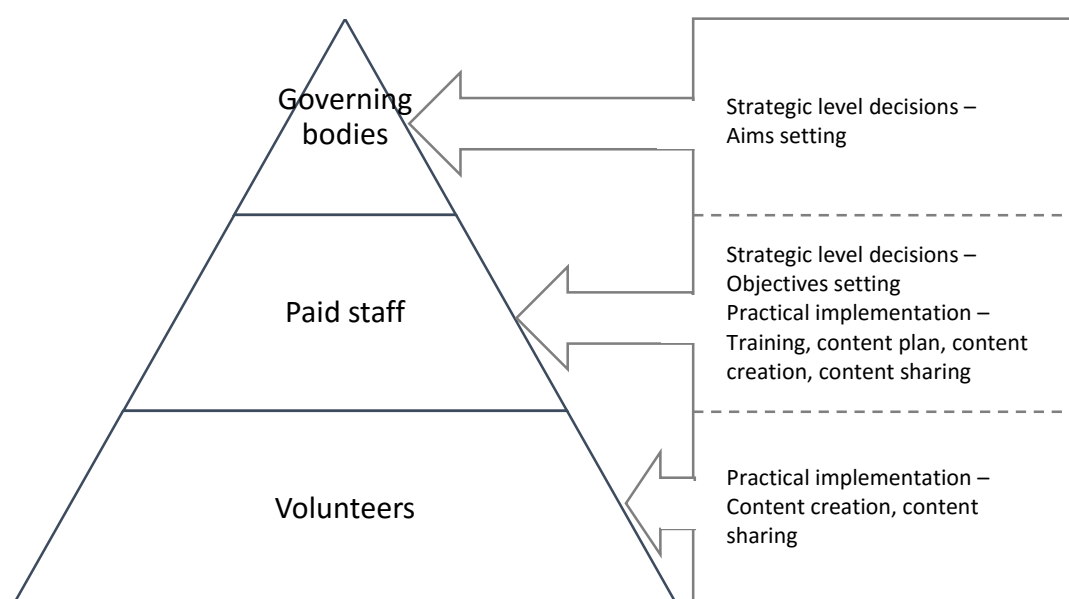


Figure 9 – Hierarchical system of decision making actors for LAMAs use of social media with related responsibilities.

The volunteers are representative of a significant current audience for HCT, and the demographic represented by the volunteers at HCT, generally post-retirement age professionals, is predicted to have increasing importance as the population of the UK continues to age (ONS, 2015b). In order to better understand their relationship with the archaeology collections of HCT, and how this contributed to aspects such as cultural capital, several days were spent with the volunteers at the storage facility near Winchester, contributing to their work and talking about the research being carried out. This allowed for casual active participant-observation of the complex tasks carried out by individuals (Yin, 2012: 10; DeWalt & DeWalt, 2011: 24). This led to insight into volunteer motivations that may not have been apparent through analysis of interview transcripts.

The participant-observation, alongside the archival and desk-based research of HCT's activities to date, provided a way to triangulate with interview findings in order to improve the robustness of findings (Yin, 2012: 13). The awareness amongst volunteers of my research varied and was described several times to the same individuals. This experience in itself was valuable as it allowed for the development of ideas through research as performance (Pratt, 2000). This was accomplished by enabling self-declaration of positionality, through participating in activities already occurring in the archaeology stores. Conversations that came out of interest in the research improved the visibility of embedded actions and actions that would have been

problematic to uncover in bounded interviews (Cameron & Gibson, 2005; Kindon, *et al.*, 2007: 187).

2.6.3 Driving sector change: Museums Use Social Media (MUSM) framework (Chapter 8)

Methods: Analysis of findings, evaluation of existing resources

The MUSM framework builds on the analysis and interpretation of examples of practice and participative action research at HCT to provide a practical resource for museum practitioners. The framework contains insights into social media as a way to augment people's experiences with archaeology collections in LAMAs and to tie use to strategic aims. It achieves this by providing a theoretical grounding in social media in the context of the needs of LAMAs.

The website and booklet provide an introduction to social media for other types of museums that have locally derived collections, such as university museums and military museums. The resources can be used by analogous collecting organisations such as archives, outdoor heritage sites, libraries, galleries, educational institutions, and local government.

2.6.3.1 Framework building

The MUSM framework complements the format of the research process described in this methodology and is presented in Chapter 8 as a booklet. The framework is built on findings from research at HCT and the examples of best practice. The later phase of participative action research phase at HCT improves the robustness of the MUSM framework.

The MUSM framework can be used standalone, with the supporting resources of the website and booklets, as a general theoretical level view into the topics that this research addresses.

Alternatively, the framework and supporting resources can be used together with the thesis as a whole. When combined, this thesis and the MUSM framework together provide a workflow for LAMAs to reuse in their own specific context, in order to augment current practice.

2.6.3.2 Ensuring sector relevance of findings

The MUSM framework is presented in formats recommended by European Union (EU) advice for extending the impact of social sciences and humanities research (ECRISSH, 2010: 16-25). This advice advocates the use of a project website, flyer, and brochure for dissemination of research. In order to make use of resources already evaluated by museums practitioners, the website used

during research at HCT was adapted and became an output for the purposes of this stage of the work. This process is discussed in Appendix V. An advice booklet was designed which outlined the framework as well as best practices for social media uptake by local museums. The booklet includes ideas for implementation that are in line with sector approaches to encouraging best practice (CT, 2006; MA, 2007; Renaissance North West, 2008; Everett & Barrett, 2009; Dawson, 2013; Happy Museum Project, 2014; Museum Practice, 2014). The booklet has been printed for use at HCT and is available on the website to download. A flyer of the framework is also available to download as a PDF from the website.

2.6.4 Conclusions (Chapter 9)

Methods: Impact assessment, reflexive researcher statement

Through interrogation of the feedback from HCT and the in-depth understanding of the topic developed throughout the thesis, the final chapter includes an assessment of the potential impact of this research. Future work is also outlined.

This chapter is accompanied by Appendix W, the final reflexive researcher statement that reflects on the learning from the research process. This statement includes a reflection on ethical considerations resulting from the research, and discusses challenges met during the PhD. The statement reflects on my experiences as a digital researcher, and acknowledge how my attitudes to action research and organisational change have impacted on findings.

2.7 Methodological considerations

This section outlines the methodological considerations that apply throughout the research process.

2.7.1 Sampling and saturation

Collection of data as part of preparatory work made use of non-probability methods, in particular purposive sampling to identify staff within HCT for initial interviews. The participants were selected based on expert knowledge in areas relevant to the requirements of the research, and through their willingness to participate. These are identified by Oliver as the two major requirements for purposive sampling in organisations (2006). My own expertise relating to the structure and organisational aims of HCT as a result of my time working for the organisation led to

hyper-awareness of the importance of ensuring saturation of sample size, although Jette *et al.*'s research finds that expertise can reduce the number of necessary participants (2003).

The objectives of this research are modest and therefore the claims reflect this. This impacts on the saturation needs (Charmaz, 2006: 114). Ritchie *et al.* recommend that groups of special interest require intensive study and that this is a factor in planning for saturation (2003: 85). This is taken into account in the identification of appropriate sources of data at HCT and for the selection of case studies.

This thesis includes an extended methodology in order that the scope and limitations of the research be fairly reported. In a review of sample sizes in qualitative PhD research projects, Mason found that in studies that were based on action research or collaborative research there was no observable pattern for sample sizes, and saturation was highly idiosyncratic and varied (2010). The most essential consideration in saturation achievement was the recognition of scope and limitations of research being conducted (*op cit.*). This research focuses on this issue as the key concern, whilst considering other criteria for sample size affirmation such as Ritchie *et al.*'s benchmarks (2003: 81-85).

2.7.2 Reducing Bias

This research is applicable to LAMAs across the UK. Whilst all recommendations may not be transferrable to other organisations, there are elements that can be replicated in a variety of scenarios. The literature review and theoretical analysis chapters, as well as the best practice instances are derived from international sources, although there is a clear bias for European and North American projects. This bias reflects the focus of the professional bodies and support organisations from which the best practice instances were selected, as well as my own background as a researcher. Outside of the UK museums sector, there are analogous situations in which some of this research will have an influence, for instance in the third-sector's use of social media for charity-run campaigns, or the UK Government's projects to extend the impact of local authority open data. This is discussed further in the conclusions chapter.

2.7.3 Ensuring reliability

This research is intended to be empowering for participants (McIntyre, 2008), as the intention was to provide guidance for future technology use to HCT as well as contributing to academic

discourse around Web use by LAMAs. The research outlined in this thesis has a significantly reduced negative impact on the reputation of HCT as the findings are presented at a time of change and so public attitudes to the organisation are in a state of transformation also.

The research that is reported in this thesis is a social act, as per Barton (2005: 317). In addition to this, it was agreed in consultation with the CoA that the thesis would be embargoed for two years post-submission in order to acknowledge the importance of the relationship with HCT and to avoid releasing potentially sensitive information that may have an impact on the newly formed trust. Empowerment can be a key effect of organisational research (Barnes, 2008). As such, the embargo will improve the impact of the research in the context of HCT. The website and booklet provides an outward facing output that is not restricted by the embargo.

To increase reliability as per Baym (2006: 82), and for the purposes of triangulation (Bush, 2007: 94), internal documents were studied and activities at the offices of HCT were observed over a one year period by means of semi-regular visits. In order to ensure that assumptions about the procedures being assessed were fairly typical Baym's requirement of awareness of participants' perspectives (2006: 82) was adhered to by spending time at the archaeology collections office for HCT and taking part in established activities, such as participating in the weekly volunteer day. Participation in events at the headquarter offices of HCT was initially planned to occur in the first phase research only. However, the experience proved so valuable in developing understanding of challenges and opportunities in HCT's use of social media that I continued to work in this way throughout the three years. The experiences in the archaeology stores provided an opportunity to observe the range of activities carried out by the team caring for the collections, as well as providing additional evidence in support of interviews and digital skills analysis carried out with the regular volunteers and employees of HCT.

2.7.4 Acknowledging real-world change

HCT was managed by the local authority of HCC at the outset of this research but became a trust at the end of 2014 in the final months of the work being carried out for this thesis. This led to some issues in data collection as repeated rounds of staff redundancy impacted on attitudes amongst paid staff and volunteers to discussions of future implementation of technology. The situation at HCT is quite common amongst local museums, as many are facing uncertainty in this period of austerity (Levitas, 2012; Miller, 2013).

This research focuses predominately on the archaeological archives at HCT. This is due in part to the relationship established with the team at HCCAMS by the researcher before this study began, and also because pressures on resources for the care of archaeological archives in local museums offers a focus for an exploration into the potential of the Web for all types of local museum collections. The archaeology collections at HCT are a good example of the current situation of LAMAs' collections in the UK. They are primarily in storage rather than on display in museums. This is typical for archaeology collections, which tend to require more physical space than other types of museum collections in local authority museums (Edwards, 2012a: 24). The findings from this research are relevant to other types of collections, including social history ephemera, science and technology based collections, coin cabinets, and natural history collections. These are particularly applicable as they tend to be a similar format of objects with associated archival materials.

The change of HCT status from local authority managed to trust follows a trend within locally focused collecting organisations (Newman & Tourle, 2011). A closer examination of the impacts of this change on the use of social media by HCT will be of use to decision-makers within the sector. The significant increase in local authority museums becoming independent is a result of perceived benefits. Appendix I evaluates the opportunities offered to local museums by moving to trust. This is particularly pertinent for a consideration of the development of a new methodology for social media use. Becoming a trust can open up additional potential funding streams and free up agendas from locally interpreted government objectives (Winckwood Sherwood, 2010), and this thesis addresses this perceived outcome as part of the methodological design.

The research for this thesis took place between October 2011 and January 2015. The initial period was extended in order to include the first few months of the HCT. This is because the change in status to trust represented a significant opportunity for studying the impact of change in the Web related practices of staff. The creation of HCT is in line with a national move in the museums sector towards the establishment of independent museums originally under the care of local authorities. Due to the changes at HCT, the impact of the transition to trust status on participant bias in response was incorporated into analysis of results by means of awareness of boundaries between personal and professional responses to enquiry (Seidman, 2013: 208).

In the case of this thesis, the advice documents produced as part of the results section are aimed at HCT as an independent organisation, as opposed to the local authority of HCC. As the change to

HCT did not occur until late in the third year of this PhD, the interviews and evaluation of the use of the Web focus predominately on the HCC Archaeology Collections (HCCAC).

2.7.5 Working with a physically situated partner organisation

Following the initial round of interviews with HCT, appropriate staff members were asked to take part in the recursive research design. As part of this recursive practice, I worked with HCT staff and volunteers on several small project proposals, referred to as field experiments in this thesis, in order to facilitate future more flexible creative interviews (Douglas, 1985). The recursive process of research with HCT considered the context within which participants were operating (Bagnoli, 2009). This process also took into consideration the dynamics of HCT as a physically situated organisation (Mason, 2002), whilst simultaneously considering the theoretical framework within which LAMAs work.

2.7.6 Identifying local museums in the UK

Ambiguous and changing relationships between local government and local museums mean that identification of local museums as a discrete category can be problematic. For this research, local museums are museums that care for collections that are predominately derived from the local environs. Local museums are predominately local government managed or are affiliated closely with local government but are independently run.

There are estimated to be around 800 independent museums in the UK with 350 or so managed by local authorities (Keene, *et al.*, 2008; ACE, 2014b, 2014c: 9; AIM, 2014: 4; Tuck & Dickinson, 2015: 10; Tuck & Mirmolavi, 2015: 15). However, the identification of local museums is not straightforward because there is a focus on governance rather than the nature of collections in available figures.

As a response to this, Appendix S examines the numbers of locally focused museums in the England and Wales by using a combination of sources to categorise museums as being local, national, or global in nature. This categorisation is based on collections and community focus, rather than other potentially misleading factors such as streams of funding or forms of management. From the results in Appendix S, there are approximately 1,340 museums in the England and Wales that can be considered to be local museums. This is a significant number as there are only 2,500 museums in the UK all together, and only 1,740 of these have gained

accreditation under the Arts Council England (ACE) scheme to recognise museums that fulfil Museums Association (MA) accepted standards (ACE, 2014b). The high proportion of local museums is compared to an apparent low representation of this kind of museum in the research literature, this highlights the need for research into realigning local museums to aims that are possible within a climate of fiscal uncertainty, but also that are sympathetic to the needs of the communities that have a connection to collections in local museums.

2.7.7 Defining social media

A substantial part of the focus of this research is to understand the current use of social media by LAMAs. Social media are often simplified as being tools for communicating online, and platforms such as Twitter (2013) and Facebook (2013) are easy ways for referring to social media. For this research, social media is made up of three components that are interconnected, these are technical tools, digital content and actors such as people or organisations (Howard & Parks, 2012).

It is the connections between these components of social media on which this thesis focuses, rather than on specific tools or platforms, such as Facebook or Twitter. This approach which places emphasis on the use of technology rather than the tool being used echoes Baym's work on reliable qualitative research online as discussed above (2006). In all initial discussions and interviews with participants, opening questions did not ask directly about 'social media' in an attempt to avoid jargon and direct the discussion in a way that narrows discovery of activities and opinions. This is in line with Espig and McLeod's work on the importance of replacing problematic terms to increase staff uptake of dynamic online content (2013). Instead, terms such as 'online communication', 'social activities on the Web' and 'digital content' were used to refer to social media when talking with study participants until conversations were established.

2.7.8 Testing findings in new contexts

Additional activities were carried out over the course of the research period to test the validity of findings and these are included in Chapter 7. These included a lifelong learning workshop delivered to a group of museums professionals and analysis of feedback from this session (both initial and then reflective feedback was collected). I also published an article as a test of the sector response to the booklet format. This appeared in the Museums Association's (MA) practitioner publication, *Museum Practice* (Beale, 2013), see Appendix F. As a test of the practical use of social media within the archaeology stores, I published a series of blog posts as part of the international

event that provides a blog for archaeologists to describe their day, the Day of Archaeology 2015. These posts had a particular focus on the work of the volunteers (HCT [woodheadc], 2015a, 2015b, 2015c, 2015d, 2015e), see Appendix G. I asked for reactions to this event and this forms part of the evaluation of findings in Chapter 7.

2.8 Ethical considerations

The following ethical considerations are relevant across all three phases of the research process.

2.8.1 Transparency

As a museums practitioner and archaeologist, when working with HCT there was a risk of “*going native*” (Jorgensen, 1989: 62), and in becoming the phenomenon I was studying. I had prolonged engagement with the participants, as per Lincoln and Guba’s recommendations (1985), and trust was established through working with many of the participants in my role as an education officer and new media officer from 2008 onwards and later as an archaeologist working at one of the sites run by HCT. I am therefore an established member of the community of HCT, and as Goffman comments:

“You’re empathetic enough – because you’ve been taking the same crap they’ve been taking – to sense what it is that they’re responding to” (1989: 126).

Transparency with the community with which engagement is developed was therefore an essential component to this research as per Lundy’s recommendations (2008: 692). I endeavoured to clearly state my motivations at each stage of the research in order to maintain trust as a mutual association and as a way to lessen the risk of becoming the phenomenon through continual reiteration of purpose.

2.8.2 Accountability

Analysis of interview findings took into account Gaskell and Bauer’s six quality criteria in order to ensure that the results were accountable (2000: 347). In particular, in addition to considerations already outlined in this methodology (see particularly sections 2.5.1.4, 2.6.1.5, and 2.6.2.3), the extensive verbatim from interviews was used. Wherever possible quotations are used instead of summarising participants’ comments. Findings were validated through communication with

participants after interview analysis (*ibid.*: 348). The approaches used to ensure Gaskell and Bauer's criteria are outlined below in table 7.

Quality criteria	Approach adopted
Triangulation of methods and approaches, and reflexivity	Iterative evaluation of research methodology throughout research process; Reflexive researcher statements (Appendix A, V, and W); Multi-method approach in order to triangulate results.
Transparency	Stating motivations to participants at beginning of activities; Reiteration of intentions and motivations throughout interactions; Relational approach to information gathering; www.localmuseums.org/ website link circulated to participants.
Construction of body of data	The data collection process was informed by participants and guided by the sector; The major factor for saturation was recognition of scope and limitations of research, reiterated throughout the research process by returning to the reflexive methodology.
Thick description	Extensive verbatim from interviews included in chapters and appendices; Paraphrasing avoided wherever possible within the narrative of the thesis.
Findings compared to expectations	Research is inductive and theory-generating; the data leads the results; Bottom-up approach adopted in the identification of participants (snowball sampling within the sector for the case studies, and within HCT itself for the partner organisation action research and interviews).

Quality criteria	Approach adopted
Validation through communication with participants	Ongoing conversations maintained with participants throughout research process; HCT participants invited to read parts of thesis in final months of research process.

Table 7 – Approaches to overcoming barriers to accountability in this research, based on Gaskell and Bauer’s quality criteria (2000: 347-8).

2.8.3 Ethics Approval

This research has ethics approval from the University of Southampton. The Research Protocol is included in Appendix H. The research described in this thesis has the ID ERGO2143.

Pertinent points from the protocol are that in order to improve the reliability of results, all participants had the option to not participate in the study (Shenton, 2004: 65-66). Ability to withdraw at any point, and to read the findings before submission of the thesis, encouraged honesty in informants. As a PhD researcher, my independent status was made clear and my agenda was outlined to participants throughout their involvement in the study, particularly when carrying out interviews. The Participant Information Sheet and Consent Form clarified this information for participants, see Appendix H.

When the partner organisation transferred to trust status part-way through the research process, this represented an opportunity to work with a group of LAMAs that was experiencing a change that is increasingly common within the museums sector. As a consequence, the research period was extended to October 2014 in order to incorporate the first few months of trust status. The ethics submission was amended and approved to incorporate further study.

2.9 Data Management Plan

The written thesis, along with appendices and interview transcriptions, will be submitted as PDF files to the University of Southampton’s Institutional Research Repository, ePrints Soton (2014).

The data will be retained securely as per the University of Southampton’s Research Data Management Policy (2015).

Chapter 2

Results and data from this research project will be available for ten years after submission in ePrints Soton, and will be available after the embargo period for the thesis ends.

No further copies of the transcripts will be kept. The audio files and fieldnotes will be disposed of following the depositing of the files described above to ePrints Soton.

The <http://www.localmuseums.org/> website will be maintained as part of my professional presence online. The domain name has been purchased for 24 month period from October 2014. If the resource is used, this will be renewed for a further 24 months. The <http://openmuseums.wordpress.com/> blog has been superseded by the website above.

This plan is based on the EPSRC expectations for research data management (2014). The metadata for the research has been submitted to Research Council UK's researchfish database (2015), and outcomes from the research will be updated on an annual basis for five years from the end of the PhD funding.

Chapter 3: Re-characterising local museums

3.1 Introduction

Reconciling multiple social functions can represent a major problem for local museums. Social media can exacerbate this challenge as the affordances of many of the tools and platforms impact on activities. Local museums are very often expected to fulfil a role in the development of citizenship (Newman, *et al.*, 2005; Belfiore, 2012; Robinson, 2012; Locality, 2013; DCMS, 2014; MTM London, 2014; Hesmondhalgh, *et al.*, 2015), whilst also delivering tourist experiences and traditionally conceived museum services (Tlili, *et al.*, 2007; Janes, 2009; Trevelyan, 2012). These tensions often exist as the result of a discrepancy between the goals of local government and the goals of the institution, and have been heightened by limits on funding and the need to explore alternative financial models (Renaissance Review Advisory Group, 2009; Higgins, 2010; Culture, Media and Sport Committee, 2010a, 2010b; Hope, 2010; Kendall, 2013a, 2013b; LGA, 2013b; SWFed, 2014).

This chapter will discuss why the pressure to support local government goals has been difficult to reconcile with traditional curatorial practice and will suggest that the effective use of social media could be instrumental in articulating a new role for local museums. It will go on to argue that these tensions have been exacerbated by a lack of guidance relating to the effective use of the Web at a local level. Successful models of Web use as pioneered by large and better resourced national and global museums are not only unachievable at a local level, they are also inappropriate.

This chapter will demonstrate that for local museums, organisational aims and objectives for Web use are currently impracticable because of a current mis-characterisation of the Web and will suggest that new forms of practice are both necessary and achievable. First however, it is necessary to understand the pressures which currently exist in relation to the role of local museums. An ambiguity surrounding the role of the local museum has characterised the development of these institutions and has created an unsustainable situation in the present. This chapter will consider the potential of the Web as a solution for challenges faced by local museums.

3.2 The changing role of local museums

Local museums, particularly those affiliated with local government, are under increasing pressure to demonstrate their value as social institutions as well continuing to fulfil more traditional roles as knowledge institutions and venues for tourism (MLA, 2011; BritainThinks, 2013; Orna-Ornstein, 2015; Tuck & Mirmolavi, 2015). Effective and creative use of the Web could have an important role to play in fulfilling these goals. It also has the potential to transform expectations of local museums and the impact they are able to have on communities at a local, regional and global level.

The provision of museums by local authorities is discretionary under the Public Libraries and Museums Act (1964: Chapter 75). As a consequence, funding and management of museums under local government care can vary between areas, and can also be withdrawn altogether if a local authority is not able to justify the benefit of the museum for its constituents. The support from the local authorities is a significant proportion of all funding received for arts and culture in the UK (ACE, 2014a: 8). However, this support is dwindling (Higgins, 2010; Lynch, 2011; Newman & Tourle, 2011; Candlin, 2012; Evans, G., 2012, 2013; LGA, 2014a; Mansfield, 2014: 16-18).

Local museums have developed along a trajectory that differs from nationally and globally focused museums (Hewison, 2004; Holmes & Hatton, 2008; Lindqvist, 2012). This has shaped their capacity to use the Web in innovative and creative ways. In the mid-Victorian period there was a steep rise in the number of municipal museums in the UK. These museums were based on models established for national museums and therefore generally had an international focus (Watson & Sawyer, 2011: 109). The number of local museums has risen steadily over time but there have been peaks of interest inspired by socio-economic and socio-political factors.

Local museums are not necessarily managed by local government. More often, a local museum will be independent, run by a trust or managed by a charity, but will remain closely aligned to a specific authority (AIM, 2011; Newman & Tourle, 2011; Belfiore, 2012; Candlin, 2012: 30; LGA, 2013b, 2014a: 4; Hesmondhalgh, *et al.*, 2015: 144; Tuck & Mirmolavi, 2015: 30). This relationship and the impact it has on core funding and development funding is discussed in more detail in Appendix U which examines how threats to local museums are shaping activities.

The report in Appendix U finds that the close relationship with local government is particularly likely to be present if collections have a local focus, or if museums have previously been local authority managed. The move from local government to trust status is occurring with increasing

frequency with local museums (Bussell, *et al.*, 2010; Kelly & Bond, 2010; Newman & Tourle, 2011), and is therefore a concern of this research. By nature of development funding streams, local museums that are independently managed with a local collections focus are likely to have aims that are aligned to the local authority constituency from which the majority of their audience is made up. Smaller, locally focused independent or local authority managed museums have been recognised to be the most vulnerable of types of museums in terms of sustainability (Steel, 2012: 5).

As well as being defined by collections focus and governance, a local museum is also an ideological concept. Assumptions about the model of a local museum have shaped the support that these museums currently receive. Sources of revenue, including core funding and short-term grants and fundraising, are effected by the imagined ideal of a local museum (Brodie, *et al.*, 2012: 4). Local museums were believed to be tools of social improvement at the turn of the 20th century (Prior, 2002: 84). During World War II, locally focused museums were said to be sustaining “*the cultural life of the nation*” (Watson & Sawyer, 2011: 111). Local museums were essential political tools, providing an important societal function. This duality of function and the attendant pressure to act as smaller versions of national museums while also fulfilling a social role at the local level persists in museums today. Patterns of uptake and use of the Web and of social media amongst local museums continue to reflect this ambiguity.

The significance of local museums in the UK in the development of individual social capital has its roots in the Ministry of Arts and Sciences which supported the spiritual health of the country through state support (Cmnd 2154, 1963: 241, para. 784). In 1965, local authorities were afforded power to act in the delivery of cultural services, and this led to local museums being charged with improving the situation of individuals by providing a cultural education (Cmnd 2601, 1965: para. 91-100). The emphasis however, was not on improving understanding of all aspects of cultural heritage, but on striving to make high culture available to everyone (*ibid.*: para. 14). This attitude later manifested in the abolition of charges to national museums in 2001 (Martin, 2003; Watson, 2015a). This was justified as a means to make national museums available to all (O'Hagan, 1995; Bailey & Falconer, 1998; Martin, 2002). Local museums on the other hand are expected to be free, despite little commitment from central Government to support this (Atkinson, 1992: 145-146; McLean, 1997: 37; Falconer & Blair, 2003; Levitt, 2008; Frey & Steiner, 2012).

During the Labour Party's time in power in the UK between 1997 and 2010, local government managed museums became part of the social inclusion agenda of the party and were funded by

the Renaissance in the Regions programme (ACE, 2011). As such, museums became a tool of government policy (Holden, 2004). This idea was not newly introduced by Labour. The ideal of the museum as a higher authority working to improve society was well-established by late nineteenth century (Cole, 1884: 356), and this role endures into the present (Roberts, 1997; Ballin, 1998; Ash & Lombana, 2012; Irwin, *et al.*, 2013). This is in opposition to current trends in delivery of local museum services that place emphasis on social inclusion and community cohesion (Dodd, *et al.*, 2007; Ash & Lombana, 2012; Gaddis, 2013). This indicates that local museums are participating in a necessary conceit that does not fit with their contribution to locally based ideas of identity and community.

Ideas about the role of museums have been steadily moving away from the expert-to-audience discourse of the authoritative museum (Hooper-Greenhill, 1982, 1992a). Although this is not often seen in the current activities of local museum online. In the past twenty years, there has been an increase in the popularity of the notion of a museum as a positive contributor to societal, economic, and cultural improvement (Georg, 2004; Gaddis, 2013). As a result of the affiliations with local government, local museums today are assumed to act as platforms for social inclusion (Fleming, 2000; Sandell, 2003; Dodd, *et al.*, 2007), as well as being catalysts for change in society (Dodd, *et al.*, 2002; Barrett, 2011; Robinson, 2012; Trevelyan, 2012; Locality, 2013; DCMS, 2014). However, expectations of museums by governing bodies and the public are very high, and for smaller, local museums, often unachievable.

There is little differentiation between expectations of the forms of local museums than of national museums, despite the fact that they operate on a dramatically smaller scale. It has been recognised that national museums are required to fulfil expectations that would be rejected outright by private companies (Balloffet, *et al.*, 2014), by attempting to achieve the traditional idea of a museum whilst simultaneously being a popular tourist attraction, an educational institution, and contributing to economic regeneration and civic initiatives (Sandell, 1998, 2003; Travers, 2006: 12-13; Morris, 2011; Cairns, 2013; Carnall, *et al.*, 2013). This ideal museum is clearly difficult to achieve. Services offered by local museums are expected to mirror larger museums, but on a smaller scale (Black, 2010). In addition to this, many local authorities are looking to local museums to act as a tourism attraction, but this requires specialist marketing and commercial strategies that local museums cannot generally access (NMDC, 2004; Trends Business Research, 2013b). These expectations are informed by the idea of 'a museum' which is based on a different kind of institution to a local museum as it manifests today, particularly on the Web.

3.3 Local museums in crisis

Through funding and policy, museums have been encouraged to incorporate broader cultural agendas into their decision making, but the capacity to succeed in this endeavour has been determined by the operating environment (Tufts & Milne, 1999: 614). In the case of local museums, the operating environment is often characterised by availability of funding streams. Regional support in the form of Renaissance funding had a significant impact on local museum agendas and these changes have been exacerbated by the new funding as set out by ACE (re:source, 2001; Marstine, 2008; Culture, Media and Sport Committee, 2010a, 2010b; Higgins, 2010; Hope, 2010; Newman & Tourle, 2011; Watson & Sawyer, 2011; Belfiore, 2012; LGA, 2014b; Mansfield, 2014). This is discussed in more detail in Appendix U, in a report prepared as part of the background to this thesis on threats to local museums. Appendix U discusses why Renaissance did not encourage the development of the local museum as a critical site for debate but instead led to a culture of low-risk taking, which has in turn delayed the uptake and effective use of social media, as advocated in this thesis.

In addition to the influence of funding and associated policy, local museums also consider the expectations of groups of people who have a specific connection to a museum (referred to throughout this thesis as communities) and the public when planning the provision of services. These factors combine to expedite a crisis for local museums. For local museums caring for archaeological archives, these collections bring their own unique circumstances which adds to the challenges currently faced.

3.3.1 Top-down support for regional museums

The successful uptake of social media to support organisational aims and objectives is evading LAMAs. To date, strategic planning, audience categorisation, and formulation of programmes of activities have been characterised by top-down management structures (Lawley, 2003; NMDC, 2004; von Wistinghausen, *et al.*, 2004; Babbidge, *et al.*, 2006; Lang, *et al.*, 2006; Travers, 2006; DC Research, 2010; Creative & Cultural Skills, 2012; Tuck & Dickinson, 2015; Tuck, *et al.*, 2015). A result of this top-down management style has been that social media strategies have been goal orientated and driven by institutional agendas, rather than by the needs of participating communities or individuals. This approach is commonly used in the reform of government service provision (Foley & Martin, 2000; Long & Franklin, 2004; Hartley, 2005; Christensen & Lægreid, 2007; Le Grand, 2010). Approaching the implementation of services that are aimed at improving

societal conditions in this top-down manner limits effectiveness and capacity for change. For local museums, impacts have been particularly negative on attempts at cultivating community cohesion (Crooke, 2007b: 47).

It seems very likely that top down approaches to the funding, planning and implementation of services will be a feature of the local museums landscape for some time to come. The transfer of responsibility of regional museums from the Museums, Libraries and Archives Council (MLA) to ACE in 2012 takes place against a back-drop of dramatic decreases in funding from central Government for local museums (ACE, 2012b). The ACE has a broader remit than its predecessor and looks to support a much more evidence-based approach to service delivery. There is currently a top-down approach in the allocation and dispersal of core funding for local museums. This is a trend across UK Government more generally, and occurs within ACE in the form of regionally based major partner museums that are responsible for the add-on funding, training and support resources for local museums (2012b, 2014a, 2014c). This thesis is not a criticism of the current mode of additional funding for local museums, but the manner in which support is currently assigned is necessarily a consideration for the re-categorisation of local museums.

The relationship with central and local government is currently a key driver in the aims of local museums as this is from whence much of the financial support comes, either through local authority core funding or through grant-based ACE or Heritage Lottery Fund (HLF) support (National Heritage Memorial Fund, 2015). The act of commissioning exhibitions or outreach programmes as well as evaluation of activities is well-established in the museums sector. Commissioning of digital activities is common, but there are several issues associated with using externally located organisations to achieve a museums' aims (Everitt, 2009; Ashmore, 2011; West, 2013). For instance, whilst not within the scope of this thesis, there is little research available on the ethical considerations associated with the rise in social action online through social Web phenomenon, such as museums that outsource digital activities through crowdsourcing.

The drop in funding is being held up by many within the sector as being the cause of the predicament from which LAMAs are suffering. It is in fact, merely a symptom of the crisis within which LAMAs find themselves today. Overall, there has also been a dramatic fall in availability of resources for LAMAs resulting in many schemes are being dropped, staffing levels being reduced, and projects coming to an end with no follow-on plans. See Appendix U for more information on this reduction in support. Renaissance remains the major source of funding for LAMAs, but it now exists in a reduced form to the previous programme (ACE, 2012b). The reduction in funding all

round can be seen as an opportunity to deal with the underlying issues from which LAMAs are suffering.

The centralised nature of the ACE mirrors the top-down approach of the UK Government more generally. The core problems in the top-down structure of the governing bodies of local museums are driving the drop in support and these are the concerns that could be dealt with, rather than the symptoms such as lack of funding provision. From the central organisation of the ACE, down to an individual local museum, several stages of compartmentalisation occur, as aims are designed that are relevant to each sub-system. In the new system of management, regional centres will provide support to local museums. These sub-level centres are local museums recognised as having specialisms as discussed above. This new model refocuses resources on particular elements that are derived from the ACE's overarching goals (2013, 2014a). In this model, it is problematic to disambiguate between regional centre's interpretations of aims, ACE's aims, and the aims of individual local museums. This is particularly the case in relation to the additional goals of the local government with which a local museum will have a close relationship, and the communities that are connected to a local museum.

3.3.2 Evidence-based resource allocation

In the UK, in addition to withdrawing large portions of funding to smaller museums (Evans, G., 2013: 5), there is a trend of evidence-based reporting being tied into the release of financial aid for museums (re:source, 2001: 108; Wilkinson, 2005; Cairns, 2012b). Availability of resources as part of Renaissance has been tied into achieving certain goals linked to party political promises predominately linked to the improvement of access to arts and culture for people within lower socio-economic brackets (Woolf, 2002). Requirements to fulfil the obligations of the government's social agenda has led to an increasingly project-based environment within the sector and a climate of uncertainty and short-term planning (Landry, *et al.*, 1993: 2; Policy Action Team 10, 1999).

Local museums are required to report quantifiable figures relating to impact of their work, but this is not always possible (Evidence for Policy and Practice Information and Co-ordinating Centre, 2007; Barker & Throsby, 2010; ERS Research and Consultancy, 2010; Gray, 2010, 2011). This has resulted in a tendency towards collecting numbers that are easily captured (Barrett, 2011; Dawson & Jensen, 2011; Hooper-Greenhill, 2012; Voase, 2013). Generally, counts of visitor figures and numbers of individuals met by outreach programmes, such as school visits and reminiscence

sessions delivered are collected and reported to funders. However, there is much more to the impact of the museum than these numbers, and the current models do not consider the impacts away from the visit model of a museum experience. The increase in use of the Web in the sector has compounded this issue as museums have struggled to evaluate use of social media and have relied on basic quantitative reporting for online activities (Finnis, *et al.*, 2011; Malde, *et al.*, 2014).

This lack of methodology for qualifying and quantifying efforts spent on activities online is a clear barrier to the take-up of the Web in local museums. The work of the national arts and culture advocacy organisation, Culture24, to develop approaches to evaluating online activities has made a valuable contribution to this area of research. Preliminary research for this thesis was included in first report by Culture24 as a useful resource for work in this area (Finnis, *et al.*, 2011: 37; Beale, 2011). This thesis contributes further to this area of research.

3.3.3 Changing audiences

It is well documented within the museums sector that audiences are becoming fragmented and transient (Cangiano, 2014). This highlights issues of purpose of local museums as it questions traditional collecting policies and creates gaps in traditional models of curation. The problem of fluctuating audience is manifest across Europe and as such museums sector representatives have raised concerns that smaller museums must choose between two opposing profiles, either focusing on collections or on up-to-date experiences (Weide, *et al.*, 2012: 58). The Web seems to offer a potential resources with which local museums can address these challenges.

Visitor demographics at local museums are predicted to change dramatically in the next decade due to several societal factors. In the long-term, populations are aging and families are less traditionally structured (ONS, 2014c, 2015d). In the short-term, the economic situation has resulted in more people choosing to holiday domestically (VisitEngland, 2013: 9). This change in leisure time habits is already having a substantial impact on the nature of programmes being offered by local authority managed museums (McLean & O'Neill, 2007). Typical visitors to local museums are older, have high educational attainment and are of higher socioeconomic status (Smithies, 2011: 21). Social media has a different demographic (Hanna, *et al.*, 2011), which can be characterised as being highly mobile, flexible and younger (Bolton, *et al.*, 2013). As such, social media represent an important opportunity to engage with new audiences. Perhaps more significantly though, the use of social media coupled with the typical demographics of museum

users, visitors and participants represents an opportunity to share digital skills and increase participation.

Anxiety surrounding the role of the local museum within contemporary social life has led to several alternative models for change. Popular strategies include a move towards a nostalgic leisure activity similar to open air museums (Oliver, 2013: 204-205), providing an interactive learning experience similar to science and discovery centres (Kanhadilok & Watts, 2014), and becoming a contemplative encounter similar to art galleries (Trodd, 2003). However, conforming to a single model, or indeed a model that offers all of the above, is unrealistic for most local museums. Current approaches have generally involved a pragmatic and resource-constrained attempt to fulfil multiple requirements simultaneously (Griffin, 2008; Weide, *et al.*, 2012).

Local museums have benefited in an indirect way from the economic downturn of recent years (Morris Hargreaves McIntyre, 2009: 6; Power, *et al.*, 2009; Cowley & Templeton, 2013: 4). This is due to the combination of an increase in engaging with schools (Taylor, *et al.*, 2010; NMDC, 2013a: 3), and an increase in opportunities to engage with locally based people remaining at home for their holidays (ALVA, 2013). As a result, in many instances the local museum is a first encounter with a cultural experience (Layard & Dunn, 2009; Oskala, *et al.*, 2009; Smith & White, 2013). This is true both for locally based people and for visitors to a region (Bellamy & Oppenheim, 2009: 19).

As an attempt to find a new sustainable role for the local museum, many institutions have attempted a transfer to the leisure experience model of heritage. Coffee machines have appeared in the corners of welcome areas and small gift shops are modest versions of national equivalents (Kent, 2010), and of analogous sites, such as leisure parks and zoological parks (McIntyre, 2010). However, when a local museum emulates the model of a leisure experience, there is a risk of failure resulting from an inability to match expectations of comparable experiences. Local museums have generally been less successful in implementing this kind of diversification of service because their closeness to the agenda of a local authority makes the provision of alternative services within the model of a local museum difficult to justify.

The home-grown tourist industry has been recognised by local government to provide potentially a substantial financial injection for the local economy (Haven-Tang & Jones, 2012; Johnson, 2012). Local museums have found themselves under pressure to provide tourist experiences for visitors into the regions. Focusing on tourism has resulted in attention being shifted away from the

personalisation of the museum experience which could be seen to be more suited to the local community within which the museum is based (Brown, 2008). Instead, there is a tendency to provide positive stories of regional heritage identity (NMDC, 2013b: 1). More often than not this results in a nostalgic restaging of cultural stereotypes (Harrison, 2002; Graham, 2003: 273-4). Reductive narratives of improvement over time and celebration of current achievements put emphasis on Universalist experiences of online heritage for visitors to a place. By focusing on tourism, experiences of heritage are delivered by local museums to individuals in a way that fits with local government's ambitions. Under the effects of Renaissance, this includes objectives such as increasing the accessibility of historical narratives through aligning collections with the National Curriculum and delivering content via education programmes (ACE, 2013). This kind of structured service reduces relativist experiences with heritage through local museums.

3.3.4 The impact of local decision making

Localised decision making is an active trend in the UK, particularly within local government (Wallace, 2009; Adamson & Bromiley, 2013; Matthews, 2014). Activities within this mirror current trends on the Web for grassroots action online (Walker, *et al.*, 2007). For local museums that care for archaeological archives, the move to locally driven solutions for community concerns is particularly pertinent as it is beginning to have a substantial impact on the relationship between archaeology and the heritage agenda (Jackson, *et al.*, 2014). This will have resonance for the shape of future archaeological archives to be accessioned into local museums' collections.

Archaeology collections held in LAMAs can offer an alternative potential focus for local government agendas. To date, these have tended to focus on the tangible facets of the archaeological record, such as fieldwork excavations. This is highlighted by Jeffrey's plea for improved attention on online digital records relating to archaeological archives (2012). More generally, experts have raised concerns that the localism agenda is exclusionary, due to localised decision making giving loudest voices precedence (McCarvill, 2012: 22). As an example of this, we can look to Butler's work which investigates how local decision making about the need for more Traveller sites resulted in excluding Gypsy and Traveller communities (2012). Butler's research evidenced that the reluctance to establish new sites was due to the high levels of negative feelings towards Gypsy and Traveller communities by more mainstream community groups (*ibid.*: 24). This kind of power relationship overlooks those who may already have been struggling to be heard through the antecedence of populism. This issue of localism upholding, rather than

breaking down, power relationships is impacting on the ability of local museums to deliver on expectations as outlined in the misconstructions above.

Localism is increasingly popular as a way to overcome the problems of incorporating community perspective into services that have been designed top-down (Bund & Harris, 2010). The idea of mass localism involves the use of local approaches on a national scale to address community concerns. Mass localism aims to enable communities to respond to societal level challenges, and these are the kinds of approaches that central UK Government encourages local museums to participate in (Harris, 2007). This is particularly relevant today in view of the Big Society's localism agenda (Kisby, 2010; Chatterjee & Noble, 2013). Localised decision making is increasingly used by local government (Wallace, 2009; Adamson & Bromiley, 2013; Matthews, 2014). Activities within localism also mirror current trends on the Web for grassroots action online (Walker, *et al.*, 2007). However, for local museums the reality is that due to core and grant funding requirements, the need to pre-define objectives through customarily agreed classifications is preventing incorporation of community perspectives from succeeding. However there are issues in the application of mass localism for decision making at a community level (Alcock, *et al.*, 2012). Critics of the move to delivery of services argue that giving communities the ability to be involved with decision making at a local level, such as in bidding for commissioning, can have a disempowering effect (Buser, 2013). Local museums are delivering services within this environment of expectations in localism.

3.3.5 The added crisis of archaeological archives in local museums

The archaeological archives cared for by HCT provide a useful focus for this examination of the use of social media by local museums because they are representative of the complexity of local museum collections more broadly. As early as 1995 the Society of Museum Archaeologists (SMA) voiced an urgent need for a solution to long-term storage of collections. Nearly ten years ago, the SMA stated that the Web could play an important part in inspiring interest in archaeological collections (Wise, 2007: 1c), but that specialist curators would be essential to ensure that museums could play a part in communities' understanding of the global context (*ibid.*: 2d). This has not yet happened. As yet, there has been no clear solution identified for the issue of long-term storage and access to archaeological collections in museums. SMA commissioned research from 2011 paints a picture of stored collections that echoes the 1995 warnings (Edwards, 2012a), yet no solution has been identified.

In addition to the general state for local museums, a museum caring for an archaeological archive must fulfil an additional function as a repository. A LAMA has a responsibility to ensure care of and access to collections (Sullivan & Childs, 2003: 4-5), and this has traditionally involved the contextualisation of archaeological archives. As recently as 2007, Swain referred to this role as being an activity to make connections between: *“the material culture, the interpretations, and the public”* (2007: 11-12). This role can cause ruptures between the needs of a local museum to engage with particular audiences, motivated by the pressures discussed above, and the needs of the collections themselves. The shoestring nature of local museums activities means that there is little opportunity to innovate through improving connections between collections care and collections interpretation online. However, in today’s local museums the model of the passive audience no longer stands (Anderson, 2004; Scott, 2012; Labadi, 2013). LAMAs need therefore to strike a difficult balance between providing suitable contextual information for objects and archival materials that are not easily identifiable, whilst also acknowledging the importance of the need to relinquish control over knowledge production for experiences with archaeological archives.

An archaeological archive in a local museum as defined by English Heritage (EH) can be extensive, and be made up of all parts of the archaeological record in a variety of materials (Perrin, 2002: 3). The responsibilities of an archaeological curator are outlined in the Archaeological Archives Forum’s (AAF) guide to best practice to include storage and care standards and making the archive available (Brown, 2007: 8, 2.3.4.). The best practice guidance used by most archaeology curators in England, does not define the user of an archaeological archive. The importance of transfer and deposition of archaeological archives to a repository such as a local authority museum is recognised within the sector (CIfA, 2014: 3). The National Planning Policy Framework (NPPF) states that it is the responsibility of local planning authorities to require that developers: *“...record and advance understanding of the significance of any heritage assets...”* (DCLG, 2012: para. 141), and that this record be made publically available. This indicates that the aims of the curation of an archaeological archive are for it to be used by those from the originating sector for study, but also for the presentation of the archive to the public. There is no explicit commitment in the NPPF to enable the study of an archive *by* the public; it seems implicit instead in the NPPF of the Chartered Institute for Archaeologists (CIfA) guidance above that the archive be interpreted by the sector and presented as a final statement to the public, and that this presentation is adequate to act as evidence for ensuring the safeguarding of heritage assets. However, it is clear

that public access to particular aspects of the archive should be an essential motive for the depositing of an archive with a recognised organisation.

The archaeological archives at HCT are representative of the rest of the museums sector in that only a small sample of the collections is on display in museums at any one time (Keene, *et al.*, 2008), with most of the collections in storage. Archaeological archives are particularly useful for an examination of local museums because they are made up of connected components that represent the many different kinds of objects and archival materials that can make up local museum collections more broadly (Swain, 2007). These include artefacts, photographs, drawings, reports, and contextual information. These items can be varied in medium, often existing simultaneously in analogue and digital form, or being born-digital in nature with analogue accompanying materials (Richards, 2002).

LAMAs must ensure that these collections are publically accessible and this is currently generally achieved by advertising the opportunity for members of the public to make appointments with specialist museum staff to access the collections. As an archaeologist and director of an archaeological excavation I have personal experience of the issues in ensuring access to archaeological archives deposited with local museums. Making metadata from archives accessible on the Web has been the focus of most research into improving access to digital archaeological archives (Jeffreys, 2012). The need to improve access to archaeological archives held in museums is an understudied issue, and this thesis contributes to this body of work.

Whilst national museums can continue to actively pursue procurement of items from particular goals, local museums are generally restricted by lack of resources to prioritise efforts in the arrival of archives. For LAMAs, it is no longer possible to seek out specimens to set along a taxonomic timeline in the same way as museums of previous centuries (MacGregor, 2007). LAMAs have found themselves in a passive role as they accession archaeological archives from commercial, research and community group projects, and archaeological artefacts found by members of the public. There are exceptions to this rule such as the purchase of the Staffordshire Hoard by Stoke-on-Trent and Birmingham city councils (LGA, 2013c), but this is rare. This means that the archaeology collections under local museum care are often dictated by the activities of archaeologists in the region and this leads to unpredictability in spread of representative objects. This presents a particular challenge to archaeology curators. In addition to this, the numbers of specialist archaeology staff in museums are rapidly decreasing. Less than one third of local museums now have specialist archaeology staff (Edwards, 2012a: 4).

Despite the drop in resources and in staff, local museums are the key destination for newly recovered archaeological objects in England. Over a quarter of the local museums in the UK care for archaeology collections (Swain, 2007: 71). This amounts to around 500 museums. The majority of these collections are locally-derived archives, with some global legacy collections such as Egyptian artefacts, and a few substantial global collections, although these tend to be Designated Collections and as such receive different funding streams (Giles & Graves, 2010).

Local authorities take on much of the pressure of storage from archaeological investigation in the UK. The most recent figures from the Association of Local Government Archaeological Officers (ALGAO) reports (2003) that local government archaeological services are responsible for the care of 90% of archaeology in England and this is carried out over 90 local authorities. Of the 500 local museums in the UK that care for archaeology, only around 160 have responsibility of accepting local archaeological archives from archaeology fieldwork undertaken in the region within which they are based (Edwards, 2012a: 8). However, the most recent SMA survey found that this number has begun to rapidly decrease in recent years and only 121 out of the 160 museums with responsibility for archaeological archives are currently able to accept them (Baxter, 2013). The SMA estimates that due to additional changes, there are currently 47 local authorities with no collecting museum (Edwards, 2012a: 4). As a flipside to this, employment in the applied archaeology sector is estimated by the Federation of Archaeological Managers and Employers (FAME) and the ClfA to have risen by 20.8% between from 2013 to 2014 (Aitchison, 2015: 3), and confidence in the sector is at its highest since 2008 (*ibid.*: 5). Predictions of rises in building development in the UK (Swain, 2007; Edwards, 2012a) means that archaeological investigation will continue to occur despite gaps in abilities to care for the resultant archives. Combined with the increased pressure on local authority managed museums to reduce storage of collections and resource requirements (AAF, 2012: 2), LAMAs are in a state of crisis.

At first consideration, archaeological archives do not seem to be easy to remove from context-rich settings. Unlike social history collections which are rich in photographs of recognisable scenes from history, archaeological archives are made up of objects that can be visually unimpressive and paperwork that is complicated for even the most experienced archaeologist to interpret. In addition to this, as a professional working in local museums, I witnessed little capacity amongst practitioners specialising in object care and curation to engage with this new mode of collaborative working with museum users. The reasons for this are explored in this thesis.

There are examples from elsewhere in the heritage sector of the co-design of recording and sharing of digital records of artefacts by communities of interest. Whilst there may not currently be capacity in local museums to innovate in this area, there are numerous potential and latent sources for support within local interest groups and amongst museum professionals. This is discussed later in the thesis with an exploration into how a relationship can be fostered that combines the care and interpretation of archaeological archives alongside the achievement of aims for engaging people with heritage.

Uncertainties surrounding the function of LAMAs described above are manifest at HCT. Several of the social, political, and economic factors examined in this thesis were observed during the action research period as well as being revealed through analysis of interviews. These are examined in more detail in Chapter 4 and 7 and in Appendix I. In Chapter 7, 8 and 9, this thesis will examine how LAMAs can make use of social media to enable experimentation in improvements to connections between people and collections.

3.4 The Web as a solution to the crisis

Local museums are seeking to find solutions to the crisis outlined above by making changes to provision of services for visitors to their collections. In many cases however, the findings in this chapter and in Appendix S and U seem to indicate that this change has not been strategically targeted at providing resources that are needed by visitors, both current and potential. Instead findings suggest that it has been a response to national and international museums' programmes for development. If the directive for a new service is unclear, it may place undue focus on a need to increase footfall or income. This could be particularly problematic to implement in relation to Web-based activities. As a result of this, local museums could find it difficult to negotiate requests for support to governing bodies. This thesis will argue that local museums could instead adopt a bottom-up approach to the provision of services, beginning with the communities within which they are based, and working towards the identification of appropriate resources to enable this change in purpose.

Within the museums sector, the impact of social media on individuals and the role that a local museum can play in developing understanding around the impact of the Web, is under-represented. The majority of research on the effect of the Web focuses on its potential for making collections available digitally through online collections management systems (Trant, 2006; Cameron, 2010; Cairns, 2011a), and for building new audiences (Blankenberg, 2013: 148; Chung,

et al., 2014). Social media has been seen predominately to support the latter. Social media is understood as a way to communicate the work of a museum to interminable audiences online, and as an extension to current practices for interpretation.

The increasing prevalence of technologies to access the Web on the move is impacting on decisions about people's experience of cultural heritage related activities (Fletcher & Lee, 2012; Chew & Jahari, 2014; ONS, 2014d). Combined with changing audience needs, this presents a significant opportunity for local authority museums. However, social media offers more than a new avenue for encouraging visits to local museums. This thesis examines the potential for social media as a method to improve access to local heritage away from the museum building.

There is an established awareness that putting objects on display in a museum does not result necessarily in an increase in democratic access to those objects (Merriman, 2006). Despite this, museums continue to use social media with a focus on the availability of content over active and targeted engagement with audiences. Activities in social media are described using terms such as "*democratic*" (Wong, 2012: 290) and "*collaborative*" (Proctor, 2010), as a way to make use of "*community knowledge*" and for audiences to become "*custodians*" (Russo, *et al.*, 2006). A study of current practice however shows that when engaging with the Web, museums favour the model of websites as noticeboards for activities being carried out by the museum combined with online collections databases to present collections as they occur within the museum's buildings. There is much enthusiasm within the museums sector for social media as a method for extending the broadcasting of activities occurring on the website, and incorporating social media into online collections as a tool for communication. This does not leverage the potential of social media as a tool for local museum related activities such as community building or identity formation.

Research in the museums sector seems to point to digital collections leading to a more global and democratic museum (McTavish, 2006: 227). The creation of digital content does not however necessarily equate to the democratic access of that content. Use of the Web for online collections access provides very little augmentation of users' experiences with objects within museum collections. In some instances, museums have incorporated social media into collections online as a way to collect user generated content that has been created in response to objects. User generated content from these projects is rarely used to improve knowledge about the collection, or to enhance object information. The transmission of information tends to be mono-directional, from the museum to the public.

As a response to the need to overcome mono-vocality around heritage experience, co-design is increasingly being adopted by community archaeology and community heritage practitioners as a methodology for incorporating community needs at a strategic level (De Felice, 2013; Neal & Roskams, 2013). It is also seen as a way to overcome the broadcast-outwards nature of Web-based communication by museums. Co-design and participation have been used to describe exhibition design processes that are inspired by collaborative functionality from the Web (Simon, 2010; De Felicie, 2013). However, many projects are not co-design in its true form, but instead incorporate community content into museum-designed interpretation. Ciolfi *et al.*'s work on Irish exhibitions explores this (2008), as the project aims to encourage participation by collecting memories of heritage from participants whilst maintaining the authority of the museum throughout the process of information gathering. To date, in the museums sector, co-design has been more of a managed relationship in which the museum retains control over agenda-setting (Skartveit & Goodnow, 2010). As an alternative, Simon's approach to the participatory museum works *with* people to move away from audiences and towards participants in the area of exhibition creation (2010). This is currently very popular in the museums sector and is discussed in further detail in Chapter 5. The participatory museum is particularly favoured amongst technologists as Simon's book focuses on the potential of technologies to facilitate this participation (*op cit.*).

Social media seems to offer a solution to problems raised by the move to what Williams *et al.* describe as the neoliberalism of the localism agenda (2014), because it seems to enable participation online. Museums are using social media to carry out projects that aim to enable people to participate in activities that are additional to those associated with a traditional museum visit. For example, visitors to museum websites are encouraged to leave comments relating to artefacts, to create collections of photographs of favourite objects on social media sharing sites, and to share reactions via social bookmarking tools. Sharing via social media is being encouraged in the physical galleries of museums as well. Figure 10 overleaf is an example of this approach.

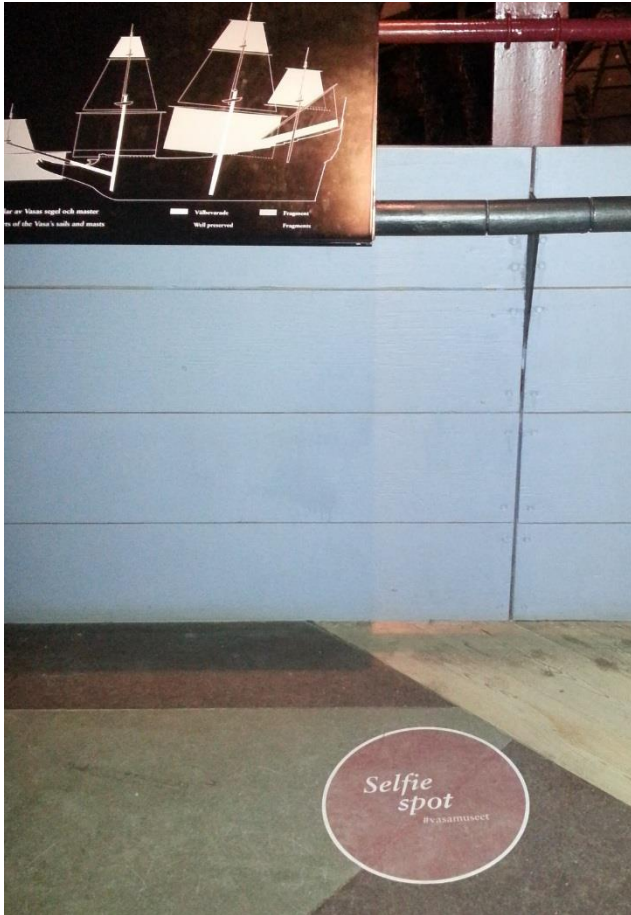


Figure 10 – Photograph of an attempt to positively re-establish links between user-generated-content from a visit to a museum with the organisation by using existing functions in social media tools. The Vasa Museum in Stockholm. The sticker reads 'Selfie spot #vasamuseet'. The hashtag will act as metadata for the museum to use to re-identify the content if added to social media platforms such as Twitter, Pinterest, Facebook or Instagram. Photograph author's own.

3.5 Technological determinism in current approaches to the Web

Local museums have bought into the idea of the Web and also to the idea of social media, but the results of social media uptake by local museums have not been as positive as was expected. This is particularly disappointing for local museums given the assumed social capital contribution of social media. In addition to naiveté in use of social media due to ignorance of its true affordances, there are several internal challenges to successful social media adoption for local museums. These manifest from current attitudes and behaviours of practitioners within the museums sector and of academic commentators within the discipline of museum studies. Much of this is tied into the lack of digital capability in the sector in the case of smaller museums. There is a significant failure to successfully express curatorial skill online, and social media is compounding this problem. This chapter will consider challenges associated with the uptake of social media by local museums to date.

Museums have generally struggled to incorporate networked computing into practice (Parry, 2007: 38). Early uses of software to organise collections were blocked predominately by a reluctance in the sector to take risks in diverting resources to adoption of insecure and incompatible systems (Moffett, 1989; Phillips, 1995; McCall, 1996). Many of the projects that made use of networked computing were carried out therefore at university museums and national museums or in collaboration with universities, as access to high-end computing was necessary (Copp, 1986). In comparison to other types of museums, local government museums have not been avid users of technology, despite awareness in the sector more generally of the potential of computing (Fahy, 1993).

Archaeological collections provide a useful focus for a study of the developments in the use of computing by museums. There was a dramatic increase in archaeological archives in the 1980s (Edwards, 2012b). This was a result of changes in the higher education system in the UK in the 1970s leading to higher numbers of archaeologists, and to the increase in building projects in the country (Keene, 2005: 34). Museums have been struggling since then to cope with caring for these collections (Edwards, 2012a).

There is a clear recognition in the museums sector that technology should be engaged with in order to improve the work of museums and to maintain relevance. In the early years of the Web, museums did innovate. Larger museums embarked on ambitious projects to make use of innovation in technologies, such as semantic marking up of collections to improve links between data (Parry, *et al.*, 2007). Museums that have relationships with research institutions, such as university museums and national museums, are continuing to drive innovation in Web use (Addis, *et al.*, 2005; Marty, 2007b). In the case of social media, there is less evidence of innovation in use, particularly amongst smaller museums. In local museums, most projects tend to use already existing tools, which means that there is less potential for invention.

Local museums already contribute to the active development of the delivery of services in the sector more broadly. National museums and other types of museums that do not have locally focused collections benefit greatly from partnerships with regional museums (Camic & Chatterjee, 2013; NMDC, 2014). Local museums have a positive impact on the ways that larger organisations work with community groups (Hooper-Greenhill, *et al.*, 2009: 38). This is because locally focused museums have the expertise for community focused working.

This specialism is not however reflected on the Web, where the presence of local museums is consistently overshadowed by far-reaching campaigns of larger museums. As an example, there are many instances on the Web of online components of projects facilitated by national or university museums working with local communities (Trant, 2006; Kalfatovic, *et al.*, 2008; Russo, *et al.*, 2009; Lehman & Roach, 2011; Pavlou, 2012; Padilla-Meléndez & del Águila-Obra, 2013). But these types of museums do not tend to have collections made up of locally derived artefacts. For local museums, there are far fewer instances of demonstration of working at a community level on the Web. By their very nature, local museums work predominately with local communities and so the barriers that are impacting on matching up analogue activities with the demonstration of this work online through engaging with people on the Web could be identified.

Social media simultaneously presents both challenges and opportunities for local museums. This is because visitor research shows that service users require local museums to be “*responsive to [visitor] needs*”, to have “*collections that are relevant [to visitors]*”, and to provide a “*good quality experience*” (Smithies, 2011: 23). There is much in these expectations that is in common with trends in the use of online content through social media. Web users are experiencing far higher levels of personalisation of content generally and the success of search engines such as Google (2014) in presenting users with location-relevant and search-history relevant content has been a catalyst for this. The increase in popularity of social networking platforms which rely heavily on user profile building has supported this increase in personalisation. Personalisation online is a potential area for local museums to contribute directions for development of the Web.

The need for ubiquity and for particularity for individuals means that much of social media relies on income generation through marketing individually targeted products (Taken Smith, 2012). This can be understood using Smythe’s term: “*audience commodity*” (1994 cited in Fuchs, 2009: 102). This is problematic when applied to local museums’ attempts to move online, as activity is commodified by the tools being used (Fenton, N., 2012: 129). Commodification is in opposition to the aims of a local museum. The commodification of activity within social media may prevent creativity as social media increasingly encourages users to be producers, or *producers* (Bruns & Schmidt, 2011; Bruns, 2012b). The rise of the produser has been seen largely as a positive potential by the museums sector (Kidd, 2014: 5). The term from the 1980s, “*prosumer*” (Parry, 2010: 226), has also been applied to the *producer* of user-generated content who also *consumes* content in a museum setting online. However, the commodification of activity can have negative impacts. Social media’s tracking of user data for targeted marketing is an example of how this can

occur. There are several social media based practices that result in this commodification of action, but an in-depth discussion of these is beyond the scope of this thesis. Most significantly, in filtering potential experience of the Web through advertising tailored to users through past actions, social media is reducing experience of difference.

Researchers are arguing that the increase in reliance on corporate multi-national media network operators for access to communication is negatively impacting on creative capacity (Fuchs, 2009: 97). Across the Web, creativity is being stifled by the commodification of behaviour. In addition to this, research on the biases enforced through algorithmic curation of feeds in social networks such as Facebook highlights that there is a process of obfuscation through simplification occurring (Rader & Gray, 2015). Hull *et al.* report that Facebook is failing to enable users to express the complexity of offline relationships (2011: 291). This demonstrates how social media is failing to deliver on the apparent offer of a system for communication that replicates real world behaviours.

Local museums specialise in personal experience of humanity. The Web is a significant artefact of contemporary life, but as of yet local museums have had little impact on the shaping of interpretation of the Web. There are several reasons for this lack of engagement and these will be discussed in the following chapters.

3.6 Towards a new understanding of social media

Expectations of social media generally are very high. Indeed, we expect social media to be answerable to higher societal responsibilities. Rhetoric around social media illustrates how expectations for these tools and platforms are tied into notions of social change through collective action (van Dijck, 2013a). Social media is currently presented as a social agent for change. For instance, social media has been heralded as an enabler in the revolutions of the recent years (Shirky, 2011), in Egypt (Eltantawy & Wiest, 2011; Lim, 2012; Tufekci & Wilson, 2012) and in Syria (Jansen, 2010), as well as for protests such as the Occupy movements (Gerbaudo, 2012; Juris, 2012; Reilly, 2014: 134). Such an enabler seems to be perfectly suited to use by communities wishing to engage in an equal arena alongside large organisations and confederations. These views onto the Web are formulated from the outside, looking towards phenomena. An alternative to the commonly used top-down approaches discussed above is to take a bottom-up approach to understanding social media (Dodds & Paskins, 2011).

In the museums sector there is a trend to incorporate bottom-up approaches to encouraging participation in digital projects (Sather-Wagstaff & Sobel, 2012; Evans, S., 2013; Jensen, 2013; Kalin, 2015). This trend seems to signify that social Web-based tools could offer ways to build participation into working practice. However, whilst there is a recognition of the need to move towards participative modes of working, there is little resource available to provide practical means for enabling this type of approach within the real environment of a smaller, local authority museum. This thesis therefore incorporates real-world experience in order to provide tangible outputs that can be used to drive change in the use of social media by LAMAs. Consideration of current approaches to social media is therefore pertinent to this study and this thesis will later explore alternative approaches to social media use, such as taking a bottom-up approach to the relationship between stakeholders.

There is an assumption that museums should be looking to develop their audiences via the Web, and that the Web is a way to increase relevance of local museums for people beyond the local environs. This thesis will consider the possibilities for the extension of the local museum experience online, both for established audiences and for new audiences, within a more pragmatic model. This new model is based on explicit acknowledgement of the true affordances of social media. Collections can be used to present more culturally relevant stories to audiences and to reflect more authentic experiences representative of all groups in society as a way to increase the range of people engaging with local museums (FreshMinds, 2007; Smithies, 2011: 23). Social media in particular presents a platform on which to support this kind of experience of heritage. However, ways for this to work in practice must be identified if local museums are going to maintain relevance online. This thesis therefore develops a framework to make the most of the opportunity of social media that is based on the context established in this chapter.

3.7 Conclusion - Identifying a way forward for social media and local museums

For local museums, there are challenges in approaching social media as a phenomenon closely linked to the ideology of the Web. This thesis is offered to the museums sector as a source of knowledge and a map with which to navigate knowledge about the potential effect of social media as a method for engaging with people. The role of digital technologies for the facilitation of multi-vocality in the heritage sector may have been recognised (Mason & Baveystock, 2009). There is still however a need to develop methodologies for implementation in the specific context

of local museums and social media. It is through this knowledge-sharing that this thesis examines the current contribution of the local museum to society and considers alternative trajectories within which social media can play a role. Central to this is a recognition of the disconnect between intention and action (Carman, 2011; McDavid & Brock, 2015). This is a theme that is returned to throughout the thesis.

Local museums are perpetuating an inaccurate perspective of the ideology of social media. This is occurring through both the conceptual approach to social media as experienced by local museums, and also the actual implementation of social media for local museum aims. There is very little debate or discussion regarding the impact that social media uptake is having on expectations of audiences of local museums. There has also been limited debate in the museums sector about the effect of social media on the role of local museums in society. There has been very little consideration of the ways in which local museums can shape social media. These broader impacts need urgently to be considered as they are at the centre of any drive by a local museum to engage with social media on an organisational basis.

Currently, local museums have not made the most of their specialism as memory institutions for communities in relation to the future developments of the Web, and have rarely engaged with research into the effects of the Web on society. Analysis of the impact of technology on society warns of the: “*myth of the mediated centre*” (Couldry, 2003: 45-48, 2005: 178). In this myth, the media becomes central to the way that we communicate with others (Fenton, N., 2012: 125). Local museums can help us to see other ways to do this and to reduce the significance of media. This is particularly relevant in a world with increasing polemic of concerns about the negative impact of Web use, such as Web addiction and social isolation (Widyanto & Griffiths, 2007; Weinstein & Lejoyeux, 2010; Kuss, *et al.*, 2013; Petry & O’Brien, 2013; Parigi & Henson, 2014; Reed & Reay, 2015).

Conversely, the Web can contribute to realigning the role of local museums towards communities that have a connection to their collections. Social media provides a method for this to occur. In order for the relationship between the Web and local museums to move forward, this thesis will examine social media as a potential intersection between local museums and the Web. This intersection can be realised through leveraging the opportunity of local heritage as a way to focus local museums towards community-led use of collections within social media.

Chapter 3

In order to achieve this, Chapter 3, 4 and 5 can be read as a statement of significance (EH, 2012) for local museums that is based on current context of a Web-enabled society. This statement of significance examines the history and development of local museums as assets for the protection and facilitation of heritage experience online. This chapter has outlined the potential significance of local museums, and situates local museums within the debate of the impact of social media on society. The following chapter will identify the major approaches to social media currently used by museums, and will examine how these manifest within the context-specific scenario of HCT.

Chapter 4: Characterising social media use by local museums

4.1 Introduction

Specific types of museums, particularly those working at national level, have had considerable success in pursuing institutional objectives through social media. At the local level, particularly within local government affiliated museums, models for successful use of social media have not emerged with the same speed. While it is almost certainly the case that local museums benefit from reflecting on best practice examples from larger institutions, it is not sufficient simply to replicate these models for social media use at a local level. Levels of resourcing and relationships with local agendas mean that local museums necessarily function differently to national counterparts but also, and perhaps more significantly, their goals are likely to be different.

As discussed in Chapter 3, there seems to be a shift in the purpose of a local museum within contemporary society. Most significantly for this thesis, changing expectations of cultural experiences have been compounded by the increase in availability of information through the Web, combined with the increased prevalence of social media in daily life in the UK. For local museums, audiences are increasingly no longer geographically locally situated, particularly in this Web-enabled world. There has been a slowness to recognise this shift and as a result of this current understandings of local museums have failed to recognise significant potential societal impacts of social media use.

Social media has the capacity to enable local museums to respond to challenges to purpose currently faced and to more fully realise their potential as social institutions, if it is used in an insightful and creative way. At present few, successful models have been developed which are specifically targeted at effective social media use for local museums. This thesis aims to address this need by developing a framework for local museums wishing to develop effective social media strategies that are guided by institutional objectives and aligned to community concerns.

It is necessary to begin with observation of patterns of use as they currently occur at LAMAs. This will be achieved in two ways. Firstly, this chapter will evaluate and characterise current use of

social media at HCT. Secondly, this analysis will be placed into context with an examination of broader trends evident within sectoral literature.

4.2 Social media for museums: Patterns of use

Social media is being used within the sector with increasing enthusiasm (Cordella & Iannaci, 2010: 53; Ringham, 2011; Stack, 2013), and most museums now have some experience of using social media. Indeed, the majority of museums in the UK, including those that are smaller and isolated in comparison to larger, nationally facing museums, are using back channels such as Facebook and Twitter to support online activities. Social networking platforms are presented to museums by the sector predominately as a new method for broadcasting information to current and new audiences (Ambrose & Paine, 2012: 44). Social media is being used by museums to broadcast the information that they would have traditionally housed on their websites, such as events and exhibitions details (Merriman, 2006: 44; Lally & Dunford, 2007; Bowen, *et al.*, 2010; Finnis & Kennedy, 2010; Romeo & Waterson, 2010). It allows for quick and easy updating of information to the Internet in comparison to more cumbersome organisational processes for adding content to websites, and this is particularly useful for local authority managed museums tied to local government ICT processes. The potential impact of social media in other areas of sector work however is little understood.

4.3 The aims of HCT: A view from the inside

With their emphasis on locally based audiences and topics for collections local museums will necessarily find it difficult to fit into contemporary expectations of audiences and of governing bodies. These expectations are exacerbated by the Web. This chapter discusses initiatives at HCT that demonstrate this challenge.

4.3.1 Conducting a social media audit at HCT

A substantial component of the initial phase of interviews at HCT aimed to review approaches to using social media to date within the organisation. The findings from this work are reported in this chapter. Paid staff involved in the care and interpretation of the archaeology collections were identified and their current practice is analysed in depth in Appendix I. The examination of attitudes to the Web in this chapter is intended as a partial audit, as it aims to understand the

motivations behind social media use at HCT, rather than quantify the use of social media tools by all staff and volunteers associated with HCT.

The social media audit in Appendix I is not intended to provide an exhaustive description of social media use at the organisation, but instead examines the reasons behind a sample of projects in order to build a representative picture of social media practice. The projects were identified by interviewees as being examples of successful social media use, and as such are self-elected. In the summer of 2015, HCT will be carrying out its own audit of social media accounts in use and dormant, and so this exercise will support the organisation's own work. The findings from analysis of the interviews at HCT and observational data were confirmed through a Web-based examination of approaches to social media by HCT and were cross-referenced with additional sources from the museums sector.

The findings indicate that there is a notable difference in attitudes to particular aspects of the archaeology collections such as the major objectives for the care of objects within the collections, and the key areas to focus efforts to communicate information about the collection to the public. This is to be expected as the roles and therefore ambitions of different individuals for the archaeological collections vary. Appendix I underpins the evaluation contained within this chapter.

There is a recognition at HCT that a more unified approach to social media is required, and the general consensus is that this should occur through training of staff who would maintain social media accounts rather than through the production of an organisational level social media strategy document for HCT. The motivations for social media use, and therefore the objectives for the various tools and platforms that are currently being used, are varied across the different departments. They have been evaluated in Appendix I and the findings are examined and reported below.

4.3.2 Comparing HCT with patterns of use across the sector

From the analysis of practice at HCT, already established approaches to the use of social media were identified. In order to compare this to patterns of use across the sector, trends in use of social media in museums over time were examined. Sector literature and online research was conducted as evidence of this, with particular focus on projects reported in papers from key conferences for museum technologists, namely the Museums and the Web conferences, the UK

Museums on the Web conferences, and the MCN annual conferences. The bibliography for this study is included in Appendix M.

From the analysis at HCT and online research, three major techniques were identified that require different levels of institutional support and result in different outputs. These are discussed in detail below.

4.4 Three approaches to social media

The three main approaches identified at HCT and observed elsewhere in the sector can be summarised as follows:

1. *Stretching further*: Local museums use social media as an out-of-the-box solution to extend analogue models onto digital platforms. Websites are structured to simulate exhibitions and online collections databases imitate stored collections and catalogues. Social media is added to these resources in order to move museums outside the buildings, and is used to carry out activities that align to visitor studies or audience research.
2. *Projecting louder*: Local museums approach social media as a progression of printed matter. Perceived as an augmentation to publishing, social media tools are identified that allow for broadcasting of information about programmed events such as exhibitions, as a means of marketing and communications. Content is prepared for this purpose and pre-defined audiences are targeted.
3. *Looking bigger*: Local museums apply social media as a way to transpose current curatorial practice online. Social media is used to support current real world activities and to supplement gaps in provisions. This approach attempts to replicate sector standards of service on the Web by mimicking national museum practice.

4.4.1 Evaluation at HCT: Digitisation drives the digital offer

In summary of the findings in Appendix I, sections I.1 to I.2, HCT uses a national museum inspired thematic approach to driving collections exhibiting. Each year, a major exhibition is developed around a theme and this shapes programming of events at all of the museums (the Big Theme). This has a direct impact on the collections as it necessitates collation of artefacts and research on the theme. The Big Theme also impacts on the use of social media. Interviews and observation with the Digital Collections Officer (DCO) indicated that the objectives of the Big Theme shaped

the activities of the DCO over other organisational objectives. Digital content for the Big Theme focuses on a website that includes information about programming, as well as providing a stage for activities relating to the collections. The content on the website is driven by real world events, and therefore provides an add-on to the Big Theme exhibition by supporting activities being carried out off-line.

The findings at HCT seem to indicate that new attitudes by organisations such as the HLF to the possibilities of social media, are impacting on activities of local museums. HLF promotes a misconception that social media is a low-cost, low-effort solution (imagemakers, 2011: 7), and the DCO's approach to eliciting comments on the Big Theme website seems to point to this misconception being present within HCT. However, the DCO has concerns about an increasing deficit in digital skills in the organisation, and this is reflected in research into ICT skills in the heritage sector more generally (Trends Business Research, 2013a: 52). This is occurring despite the fact that communication through digital means by heritage organisations is increasing (Clayton, *et al.*, 2014: 41). This is resulting in a need to commission work for digital projects (Tlili, *et al.*, 2007; Morse & Munro, 2015), which will compound the growing skills gap between local museums and larger national museums (NMDC, 2004).

Evidencing of impact from digital activities, particularly social media is a major concern for the DCO. Return on investment is an increasing need for museums (Allen, *et al.*, 2012; Coleman & Nankervis, 2015), and much research is being conducted into measuring impact of museums on experiences with museums that are not conventional visits to gallery spaces (Tait, 2008; Romanek & Lynch, 2008; Ander, *et al.*, 2013a; Camic & Chatterjee, 2013; Baggett & Gibbs, 2014). Much less advice exists for measuring experiences with museums on the Web.

The interviews with the DCO alongside HCT documentation seemed to indicate that the legacy of digital assets was not currently recognised at HCT (Heritage100, 2012a; Owen, 2013a: 5; ACE, 2015a). Lessons are not being learned from previous digital experiences and there is a need to make more of legacies from previous cultural commissioning of digital resources, for instance the Heritage100 website which is currently dormant but includes context-rich user generated content (HoneyBun, 2013; SCC, 2013: B1.7).

The need expressed by the DCO to digitise the collections seemed to drive activities. Social media was recognised as a way to research into audience reactions but there was little recognition of the fact that social media could identify audience needs, despite research into this area pointing

to this being a positive addition (Larsson & Hallvard, 2011; Lotan, *et al.*, 2011; Marwick & boyd, 2011; Bruns & Steiglitz, 2013; Harrington, *et al.*, 2013). Lack of capacity to carry out these activities could be the reason for this omission. Attempts to digitise the collections were being slowed by legacy licensing of existing digital content, particularly photographs of objects, and this is present across the sector (Baron, 1996; Sundt, 1999; Crews, 2012; Weilenmann, *et al.*, 2013).

The detailed findings from interviews with the DCO are in section A1.1 of Appendix I.

4.4.2 Approach 1 - Stretching further

The museums sector has been designing digital content that is geared towards making the most of the changing needs of audiences. This is being achieved by providing online information about collections and events via websites that incorporate innovations in technology use. For example, mobile device friendly rendering of webpages (Arvanitis, 2010), or social media sharing buttons alongside website content (López, *et al.*, 2010). So far, instances of making use of technologies such as mobile devices in replacement of a physical visit to a museum are less popular (Andersson, *et al.*, 2013; Daukantas, 2014). For local museums instead, the focus has predominately been on the potential of the Web to attract audiences to sites in order to raise visitor numbers *to* museums. Whilst some attention has been spent on the potential of the Web for sharing content *from* museums and getting it to audiences, this has proved more problematic for a local museum. This is because this approach does not fit with the established model of evidencing impact of actions to governing bodies.

Larger museums such as national museums are responding to changes in expectations of online presence with increasingly complex and interactive websites. On these websites, online collections databases and multimedia content are presented. Many of the characteristics of activities carried out online that are most popular on the Web derive from the ability of user interfaces such as search engines, websites, and social networking platforms to provide personalisation of experiences. The focus has been on increasing options for visitors to websites so that experiences can be more personal (Beler, *et al.*, 2004; Marty, 2011; Ardissono, *et al.*, 2012). Some arts and culture organisations have developed websites that have personalisation functionality built-in, such as the Museum of Modern Art website (2013) which uses categorisation of users to tailor experiences.

The approach to social media has been to adopt new platforms and tools as they become popular, in order to have a presence. For instance, the British Museum (BM) currently maintains several user accounts, including Google+ (2014a), LinkedIn (2014b), Vine (2014c), Wordpress (2014d), Facebook (2014e), Flickr (2014f), Instagram (2014g), Pinterest (2014h), Soundcloud (2014i), Tumblr (2014j), Twitter (2014k), VK (2014l), YouTube (2014m), and Vimeo (2014n). It also has a professional presence through staff-maintained blogs. Smaller museums clearly do not have the resources available to compete online on the same scale as organisations like the BM. Within these well-established nationally funded institutions which are well-resourced in comparison to local museums, attitudes amongst staff are that technical skills and resources needed to transform online activities are lacking (Pett, 2012: 102). However, despite the precedency of larger national museums, many of the social behaviours that contemporary Web design seeks to facilitate map directly to social functions traditionally associated with the local museum.

Local museums specialise in the personalisation of historical discourse. They are able to make connections between familiar historical meta-narratives in a way that is accessible and relevant to audiences at a local level, and to support the incorporation of highly personal para-narratives into these connections. Computing has been acknowledged to enable modularity of narrative as content is made digital (Ryan, 2004: 417), but within social media there are additional levels of complexity that block this occurring. The specialism in personalisation means that local museums can contribute to improving modularity.

Approaches favoured by larger museums to adopt personalisation online via institutional websites and the widespread uptake of social media is problematic for local museums as these organisations do not tend to have the technical knowhow to match institutions such as Google or the BBC in the personalisation of their website or Web presence more generally. Bespoke designed sites are becoming increasingly necessary for museums' use of the Web, but this is also not always within the reach of local museums. Even Web solutions such as ready-built websites are expensive (Petrelli, *et al.*, 2013), and often require technical expertise not available in-house (Johnson, *et al.*, 2013: 10). Social media can offer options for Web presence that can be established with lower-level digital skills (Kukulska-Hulme, *et al.*, 2011; Fresa, 2013). This is because tools like the blogging platform Wordpress (2014) place emphasis on user experience and are easier to implement.

The emphasis for engaging with the Web on centralised indexes such as the EU project to collect metadata from cultural heritage institutions into Europeana (2013), and online collections

databases is not necessarily the most appropriate direction for local museums. Museum curators have been praised for prioritising ideas over objects and therefore deconstructing the canon of the museum as the great collector (Marstine, 2008: 28). The object has not lost its significance for museums, but theoretical ideas around the approaches of museums have developed rapidly in the past twenty years. Online, as a result of this there is now an emphasis less on museums existing virtually, but instead on museums engaging digitally. This subtle shift has had a significant impact on the ways in which local museums are engaging with the Web.

In the early 2000s, there were high hopes but also fears for the idea of the virtual museum (Paolini, *et al.*, 2000; Bowen, 2003; Schweibenz, 2004). For instance, Huhtamo has identified a link between attitudes to the potential of virtually recreating the museum in the 2000s and concerns of artists and philosophers from the 1930s about the impact of photography on the genuine object (2010: 122-125). There were concerns that the virtual museum would result in loss of authority for museums through the introduction of technology. Online collections do not contribute to overcoming this issue. Instead they extend real world models of object precedence into the online space.

The virtual museum represents a significant moment in the development of attitudes within the museums sector to the potential of technology for engaging people with objects. Virtually moving to the online introduced a new medium to the traditional museum; a new way to communicate with audiences by replicating the museum elsewhere. Before the Web, the virtual museum existed as CD-ROM based interactive models which presented a virtual museum through a “*human interface*” (Miller, *et al.*, 1992: 192). There was an emphasis on the use of 3D data visualisations and the user experience to heighten the closeness of the virtual museum to visiting a real museum. Virtual museums were mirror images of actual museums; they attempted to virtually re-situate the museum elsewhere, but as it was in the real world.

The virtual museum was seen as a way to increase the reach of the museum, but did not move away from current models of the museum. Interfaces were designed for individual experiences of the museum through technology, with little attempt to recreate the social experience of a museum visit. The virtual museum online is similar to the standalone virtual museum that had to be loaded from a drive, except that it could be visited by many people simultaneously. However, there was very little way to represent visitors. Tickers showing the number of visitors to virtual museum websites were very popular, but aside from this numeric representation of the other

invisible visitors to the virtual museum, users still experienced the museum alone, an empty virtual building that they could navigate.

The virtual museum lost popularity as user interfaces to the Web improved and ideas about participation online developed. The emphasis in the past ten years has been on interactive websites with digital collections (Marty, 2011). The idea of the digital museum or the online museum is made up of digital versions of content from a real museum but also incorporates new digital objects that do not exist within the museum. This content is made for a specific purpose, to engage with a particular audience or audiences and can manifest in a variety of media. However, people are still missing from most digital museums when emphasis is on getting objects online via collections databases.

Social media could represent a significant resource for the development of the idea of the digital museum as it is more closely aligned to the idea of the digital museum than to the virtual museum. The network of people that makes up social media could support a model of a museum online that does not get disconnected from the real-world museum, but that augments the shape of the local museum online. In order for this to be achieved, local museums could be re-characterised in order to embed digital practice into curatorial methodologies. Digital cannot be an add-on to real world activities, but can instead provide a way to extend the opportunity of experiences of heritage as facilitated by the local museum. This is explored below through Oldenburg's idea of the third place (1999).

Oldenburg's analysis of the loss of places in the USA that contributed to people's sense of community, terms these lost places as: "*third places*" (*ibid.*: 16). In these third places people conduct involuntary, informal meetings that contribute to general wellbeing and the development of democracy (*op cit.*). Commentators on the Web have promoted the idea of the third place as being constituted online (Soukup, 2003; Minahan & Cox, 2007).

In standard models for evaluating visitor experience, emphasis is placed on evidencing the impact of museum visits on individual learning. This is commonly approached using Falk's well-established learning model (2009). This model relies on a notion of identity as stable (Bickford, 2010). Falk's model is used today in most evaluation frameworks for museum audiences and reflects the popularity in museums evaluation of audience segmentation (Dawson & Jensen, 2011). Current models used to report on the impact of museums on identity are based on the assumption that audiences are passive and can be categorised (Sandell, 2003; Newman, *et al.*,

2005; Rounds, 2006; Lloyd, 2014). This does not take into consideration essential contextual experience and the nature of identity as fluid and impacted by cultural conditions, as put forward by Foucault (cited in Clarke, 2006: 526).

Focusing on learning as the major factor in identity negotiation through museum experience underplays the significance of social cohesion and social interaction (Somers, 1994; Hopkins & Blackwood, 2011). This is the aspect of identity that informs our sense of belonging, or of community (Postmes, *et al.*, 2000). Measuring our sense of identity within the context of community from online experiences is problematic and cultural outputs are often the hardest to capture. Researchers from the Oxford Internet Institute (OII) found that there is a negative disparity when asking people to evaluate how satisfied they were with cultural outcomes of their Internet usage in comparison to other types of outcomes such as social or economic ones (Helsper, *et al.*, 2015: 47). In fact, the OII found that many people cannot identify any experiences with cultural difference or any instances of socialisation out of use of the Internet (*ibid.*: 13), an essential part of our development of social identity.

In addition to the issue of over-reliance on the use of identity-centred approaches to museum engagement, as part of the formation of identity through connecting with a museum exhibit a collective past is experienced (Leinhardt & Knutson, 2004: 50). This collective past needs to be critically analysed as part of the role of the museum as this is bound into institutionally-driven identity, rather than being community- or individually-driven. Museums are aware of this issue, and there is a substantial body of research that attempts to find new methodologies for designing and then evaluating engagement with museums offline (Preskill, 2011; Stuedahl & Smørðal, 2012; Camic & Chatterjee, 2013). However, in the case of reporting the impact of social media on communities online (Branthwaite & Patterson, 2011), the metrics employed have more in common with those used by museum practitioners during the 1980s. There is an over-emphasis on the use of quantitative measurements of interactions and dwell-time, and little acknowledgement of alternative forms of understanding such as contextualising experience.

4.4.3 Implementation 1 - High institutional buy-in

Encouraging personal reflections on organisationally controlled digital content.

The incorporation of social media functions into digital content has been used to enable users to contribute personal reflections on content. This is facilitated by means of functionality such as Facebook comments linked to object records. Figure 11 below illustrates this method.

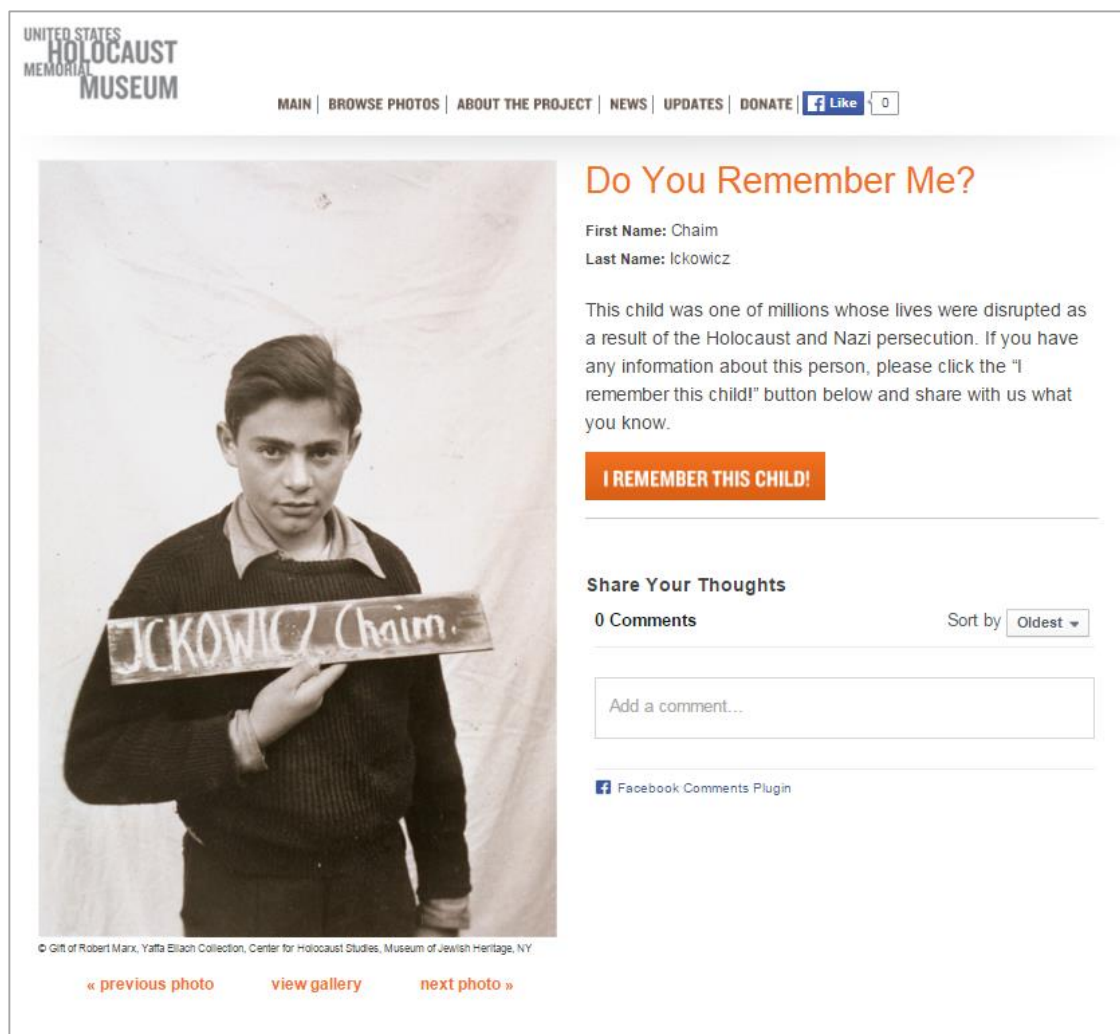


Figure 11 - Example of social media plugins linked to online collections content. United States Holocaust Museum Remember Me? project uses Facebook Comments Plugin to enable commenting functionality for collections content (2014).

This solution demands organisational buy-in and projects that use this kind of implementation incorporate social media at a strategic level. This is because the technical implementation of this demands centrally implemented uptake.

4.4.4 Evaluation at HCT: Campaigning drives the digital offer

As examined in Appendix I, sections I.3 to I.4, the Marketing Officer (MO) expressed an emphasis on the use of social media to cater for existing audiences. Marketing is a key focus in the

museums sector (Rentschler, 2011: 16). Dumbing down content was referred to as an important feature of social media use at HCT and this is reflected in use of social media in the museums sector generally (Bayne, *et al.*, 2009; Bremen, 2011: 121).

For the MO, centralisation of efforts within social media was seen as a necessary next step at HCT. Control over content was a major concern for both the DCO and the MO. This is against trends in the sector more generally to free-up digital content (HLF, 2013a, 2013b, 2013c).

The MO is mirroring trends in online communication by public institutions, adopting social media as less formal channels (Hausmann, 2012; Shadbolt, *et al.*, 2012; Shadbolt & O'Hara, 2013; Bates, 2013; Amtzis, 2014; Jetzek, *et al.*, 2014). However, HCT seems to be reluctant to actually relinquish power over digital content online.

Internationally facing themes are seen as a way to engage with tourism, and this can be seen in the locally facing UK Government initiatives (Department for Culture, Communities and Rural Affairs, 2010: 3). Narrative provides a way to present collections within a global theme (MacGregor, 2008: 9, 2010; MacLeod, *et al.*, 2012; BBC, 2013; Francis, 2015), but this is often at the expense of multi-vocality. For the MO, the narrative is key to digital activities as it provides a way to engage with multiple audiences simultaneously. However, narrative in this form excludes individual interpretation and requires instead that HCT maintain an authoritative voice. This is in contrast to moves in the marketing sector towards empowering of consumers through social media (Mangold & Faulds, 2009; Muk, *et al.*, 2014; Becker & Nobre, 2014; Dollinger, 2014; Su, *et al.*, 2015; Hudson, *et al.*, 2015; Killian & McManus, 2015; Öz, 2015). User generated content is encouraged at HCT, but not used to inform activities.

At HCT, comments by the MO seem to indicate that the Marketing Team consider themselves to be the natural central co-ordinators of social media use. This points to social media being seen as a tool for broadcasting information. There was little evidence of a desire to use social media to make connections between audiences and collections.

The detailed findings from interviews with the MO can be found in section AI.2 of Appendix I.

4.4.5 Approach 2 - Projecting louder

A common approach to social media by local museums is to make use of the networked nature of the tools and platforms to spread the word about activities already occurring within a museum.

Local museums are using social media to extend marketing and communications activities onto the Web. Social media provides a way to market events and exhibitions programmes in a manner that reflects the work of larger museums like national museums. When I worked in small, local government museums, much advertising of events was paper-based. To advertise family weekend events, posters and leaflets were printed, reproduced through photocopying and then posted using mailing lists and networks of locations suitable for the particular event, like noticeboards in libraries and cafes in the area. Budgetary restrictions often meant that printed materials were in black and white and used standard formats such as white A4 paper. Email provided an additional format for advertising, and messages tended to replicate paper-based materials, often attaching PDFs of leaflets to email messages.

On the Web, using tools like social media, smaller organisations are not restricted by the physical limitations that are present for analogue communications with audiences. Design and publishing tools for digital materials that are built into many low-cost software and Web-based tools means that materials can now mimic larger institutions' provisions. Online, marketing materials are freed from the restrictions of printed matter, and there are fewer signifiers that expose the size of an organisation. The examples in figure 12 below and figure 13 overleaf compare advertising for a schools session at a large national museum with a small museum. There is very little that differentiates this digital content visually, although the actual offer is likely to be diverse.

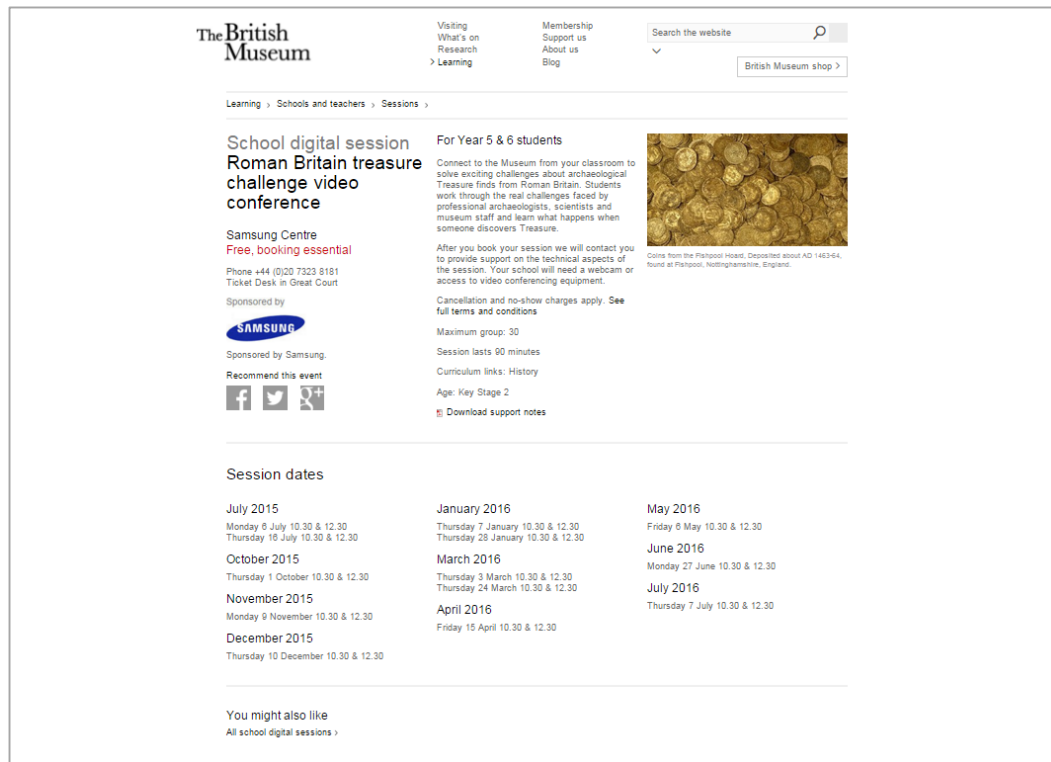


Figure 12 - An example of Web-based marketing for a school session offered by a national museum (British Museum, 2014p).

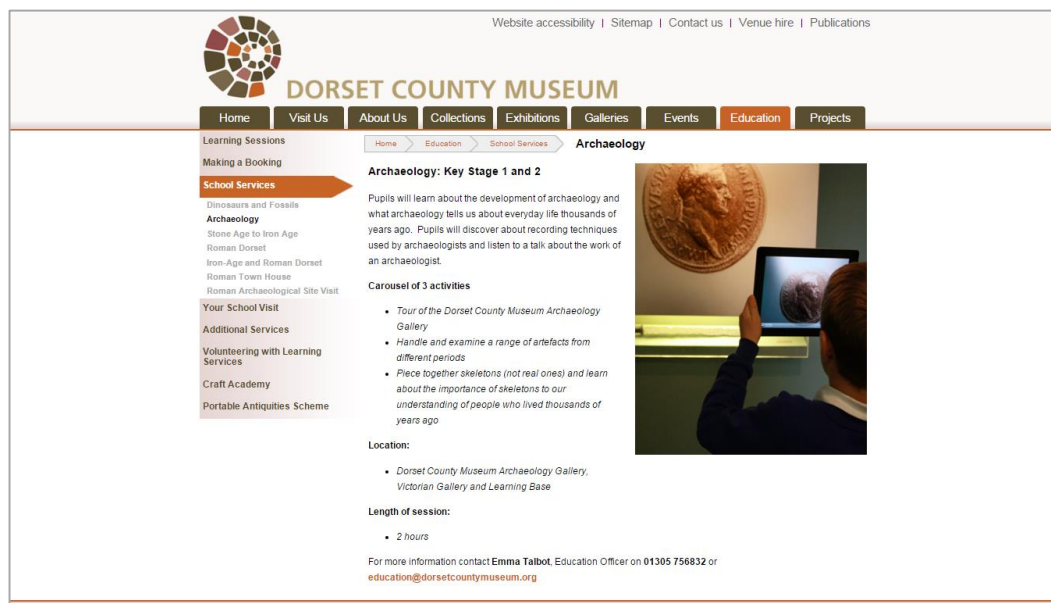


Figure 13 - An example of Web-based marketing for a school session at a local government managed museum (Dorset County Museum, 2014).

The predominant approach for these instances of Web use has been to broadcast information, rather than to engage in dialogue with audiences. For local museums, those projects that do attempt to make use of the relationship building capacity of social media, often attempt to

recreate approaches that have been demonstrated to be successful by larger museums. However, the actual experience of using social media, is that it has resource-heavy requirements in order to appear casual and spontaneous. This lack of awareness of the amount of resources required results in many social media projects and campaigns being abandoned or losing steam due to the misrepresentation of necessary resources and skills.

There is also a misconception in the sector that material designed for digital sharing online must be dumbed-down (Barr, 2005). This is preventing successful engagement with communities of interest online, and with currently largely untapped sustainable and dedicated audiences for local museums that are already committed to supporting museums. The Web seems to provide a new way to communicate with new groups.

Practically, local museums are struggling to make an impact online because organisational processes work against innovation in Web use. For instance, there is very little research available that considers the implications of the relationship with local government information technology procurement and management processes on innovation in Web use for local museums. From a survey of local government museum websites carried out as part of this research, it seems that many museums use content management systems that have been implemented to deliver the diverse range of services carried out by local government. A study of this nature is not within the scope of this thesis, but an initial survey seemed to identify that the website of a local museum may not have the functionality possible if it were to be created free of this affiliation. Social media seems for many local museums to be a solution to this problem of restriction of functionality due to content management systems. Figures 14 and 15 overleaf provide a typical example of a local government museum webpage within a local authority managed website.

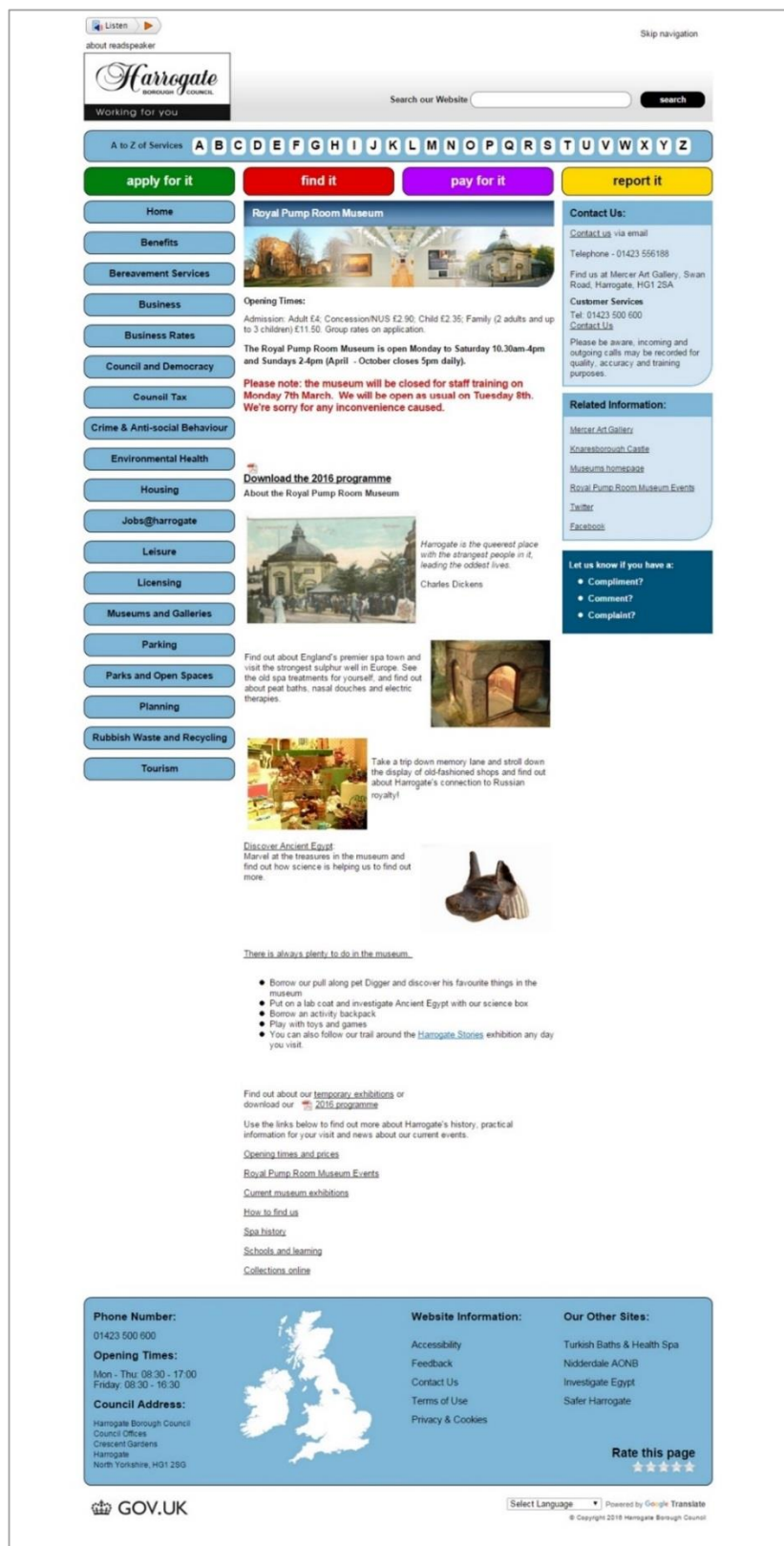


Figure 14 - An example of a museum using a local government website (Royal Pump Room Museum, 2014).

Information relating to visiting such as ticket prices is added as free text. This means that they are not indexable by search engines.

The current programme of events is included as a link to a PDF. This is not particularly accessible and must be edited separate from the webpage.

Images are small so that they fit into the stylesheet. There are no caption, despite the nature of the photographs.

Additional content has been added as webpages, but these are not in the main navigation of the website. Instead they are accessed in a free text list.

The main contact and location information on the page does not relate to the museum, but to the local authority.

Figure 15 - An example of a museum using a local government website, and a review of the impact of the website on the museum's Web presence (Royal Pump Room Museum, 2014).

Despite the contribution that local museums make to the cultural heritage sector's approach to communicating at a locally relevant level, it has been evidenced that all types of museums struggle to transmit museum-based values to community groups (Hooper-Greenhill, *et al.*, 2007: 38). Often, museums staff do not recognise the importance of passing on curatorial skill or on

discussing decision-making processes with groups (*ibid.*: 39). This could be improved by engaging with curatorial practice online in a way that is more reflective of the analogue experience of curatorial professionals. By improving online expression of curation, local museums can increase the impact that they can have on the progression of curatorial practice across the museums sector.

As introduced in Chapter 3, a key concern for local museums is that expectations of the reliability of information sources have changed. Local museums could find a way to provide information online that is equal to the availability of information from other sources. As early as 1997, commentators recognised the impact that the Web was going to have on the distinction between the presentation of professional and amateur knowledge:

“Thanks to the Web, amateurism and spuriousness no longer need look amateurish or spurious” (Anderson, 1997: 40).

This echoes the approaches to social media identified in Chapter 3 and in this chapter. This has not in fact been the case, despite popular belief. This is because high level skill is required to produce digital content for the Web that disguises amateurism, and this has meant that the promised potential of the Web for smaller organisations has not been realised. However, the Web has impacted greatly on individuals’ information gathering and does offer potential to present information on a global scale. The change in scale from printed matter to Internet shared information has led to fears of difficulties in differentiating between institutional and individual knowledge at an individual level (Bansal, *et al.*, 2010), as well as concerns that it is now harder to differentiate between professional and amateur derived content online (Nørgaard Kristensen & Mortensen, 2013). This has contributed to the crisis of confidence of the public in museums; on the Web, many signifiers for a museum are not present.

Digital technologies are disrupting established practices in museums. Whilst there have been studies considering the impact of engagement with cultural activities (Bennett & Parameshwaran, 2013), there are substantial evidence gaps for the holistic contribution of arts and culture (Mowlah, *et al.*, 2014: 41). The use of digital technologies is highlighted as one such gap by ACE which believes digital technologies can contribute to resilience in the sector (*ibid.*: 44). One key impact of use of the Web in the sector to engage with audiences is that local museums are ill-equipped to capture and describe the extent of a museum experience that is mediated by the Web. This is particularly the case for local museums as they make creative use of the Web to

attempt personalisation of the experience for their audiences and this leads to problematic evidence reporting. To evidence impact online, social media seems to offer a tantalisingly ‘easy fix’ as most tools offer ways to measure impact. But the potential to capture quantitative evidence for impact via social media tools and platforms does not mean that they are necessarily the most appropriate online solution, and local museums need advice on how to make more informed decisions about social media uptake.

4.4.6 Implementation 2 - Some institutional buy-in

Incorporating social media bookmarks to appeal to personal social media use.

The incorporation of social bookmarks for digital content has provided a way for users to share their experience of online collections through their own social media channels. This takes the form of buttons linked to text and images on webpages. Figure 16 below illustrates this implementation.

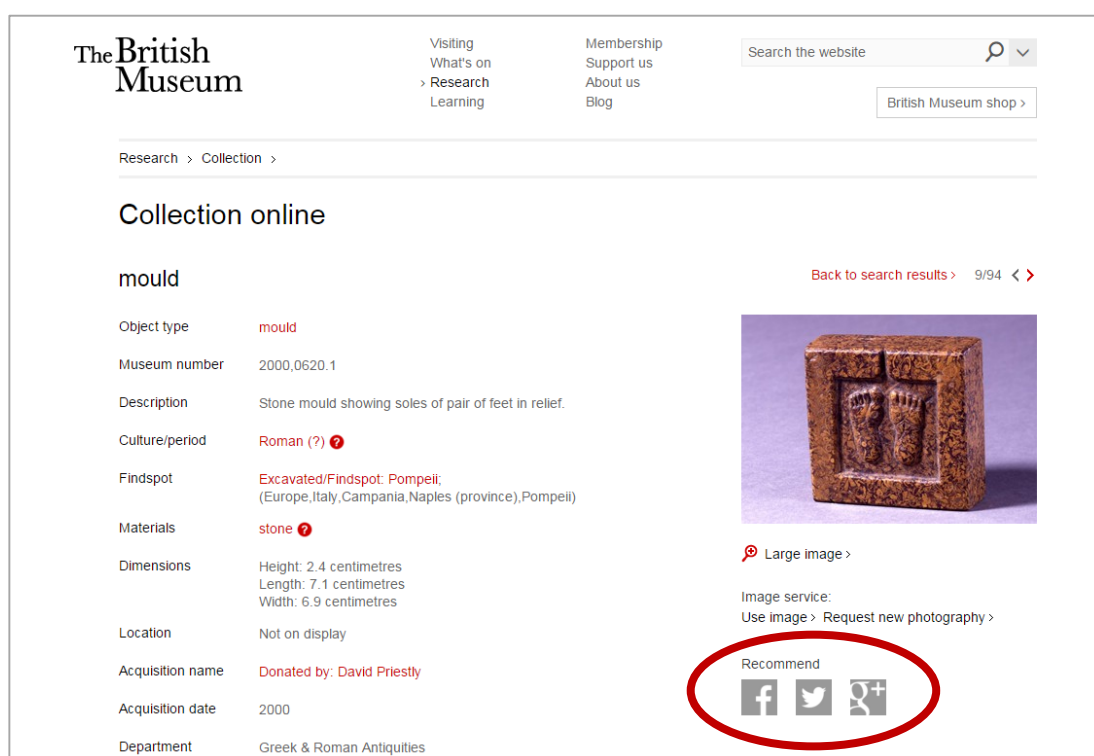


Figure 16 – Example of social bookmarking on the BM's online collections database (British Museum, 2014o).

Increasingly, this method is unnecessary as social media tools and platforms provide browser-based add-ons so that users can add their own bookmarking functionality to content that they view. Figure 17 overleaf illustrates this change.

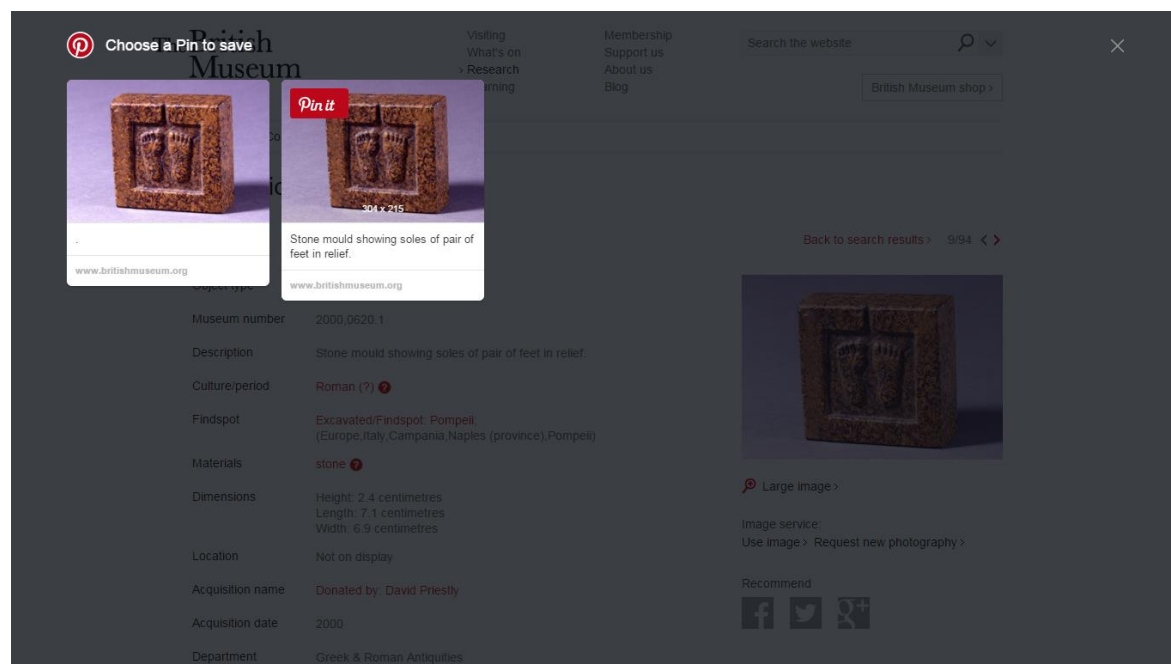


Figure 17 - Example of Pinterest social bookmarking add-on in Google Chrome browser (British Museum, 2014o). The BM online collections database combined with the add-on renders in this way. Users can select images from the page to share on Pinterest. This functionality is provided by the social media tool, not by the BM's website.

In simply adding buttons to content, museums are providing a less convenient version of an increasingly available functionality.

4.4.7 Evaluation at HCT: Collections drive the digital offer

Discussed in more detail in Appendix I, sections I.5 to I.6, the Curator of Archaeology (CoA) at HCT is not currently driving digitisation of collections under their care, as this is carried out by the DCO. However, much digitisation is occurring as part of the daily activity of caring for the collections, but this is not currently aligned with central digitisation for the online collections database. A Wordpress blog (Hampshire Archaeology, 2014) provides a public outlet for reporting on activities at the archaeology stores and is seen as an iteratively building reflection of the role of the CoA and the team of volunteers that he works with.

Little attention has been given to preparing content for identified audiences for the blog. Instead, it serves as an outlet for the individuals working on interpretation of archives in the collections, and provides a way for the CoA to demonstrate the activities occurring to management at HCT. The involvement of the volunteers reflects research by the SMA that indicates volunteer participation in archival use is a major component of evidence of use of archaeological archives in museums (Edwards, 2012b: 71-72). The attention paid by the CoA on the Wordpress blog signifies

that it is a significant outreach tool in his eyes. Evidence of reach supports this attitude (Current Archaeology, 2015; Miller, 2015a, 2015b, 2015c).

The CoA does not seem to feel that wholesale digitisation is a necessary activity, but is keen to create and share digital content online. There is little interest in profit-making from digital assets such as images of artefacts, and this is in line with findings in the sector that evidence that digitisation is not a valid form of revenue generation (Sorkow, 1997: 166; Tanner & Deegan, 2003; Tanner, 2004; Sanderhoff, 2014).

The detailed findings from interviews with the CoA are in section AI.3 of Appendix I.

4.4.8 Approach 3 - Looking bigger

Local museums are increasingly expected to critically engage with difficult histories (Bonnell & Simon, 2007: 65). This critical engagement is part of a responsibility of local museums to encourage us to reflect on exceptions of heterogeneous experience of the world. This expectation means that local museums can tackle topics that are less commonly established, but to do so within social media seems to present a challenge. The typical mode of dealing with difficult topics is through the presentation of passive content within an exhibition. The creation of an exhibition renders the objects within it inert, frozen in time, and therefore less relevant to the audience (Appadurai, 1986; Moser, 2010). The mode of the exhibition does not translate to social media.

In fact, the mode of presentation of interpretation is in opposition to conventional methods for content being shared within a social networking platform. Local museums could find ways to engage with social media on the same terms as individual users. This kind of engagement requires however high levels of commitment, particularly in regards to ensuring a level of competence commensurate with the more experienced users of a social media platform or tool. This is because each tool or platform requires a skill set that must be gained in order to effectively function with other users. Ineffective and inexperienced users are not tolerated within these communities (Suh & Wagner, 2013).

A major reason for the increasing gap between audience expectations and use of the Web by local museums is that curatorial skill is not being expressed online. The process of curation can be carried out by anybody online in its most basic form, but the more complex practice of curation as a whole is rarely expressed on the Web. O'Neill states that curation requires immersion in collections over long periods of time (1991: 29). There is an assumption that this requires access

to the authentic collections rather than digital surrogates (Witcomb, 2007; Piccini & Rye, 2009: 35; Srinivasan, *et al.*, 2010; Bitgood, 2013: 64-76). Although not within the scope of this thesis, this issue of precedence of the genuine object and the impact that the increase in 'curation' as an online activity could have on the credibility of immersion is a potential future direction for research. Users of an online collections database that offers high quality information derived from artefacts, such as scaled 3D models and accession data, can potentially develop a longer-term, in-depth relationship with objects than a curator would ever find time to cultivate (Cameron, 2007: 52; Edwards & Lien, 2014).

To date, the translation of real-world practice onto the online world by museums has been piecemeal, and attention has been given to aspects of collections that are less problematic to present digitally. This has led to an over-emphasis of the digitisation of an object into two-dimensional format (Addis, *et al.*, 2005; Broomfield, 2009; Boyd Davis, *et al.*, 2013; Carrasco, 2014). This is generally achieved through photography resulting in a digital image. This is added to the object's place within a collection and the broader context of the object expressed through identifiers such as time period, place of discovery, associated people and events, and physical materials. The digital object, made up of image and record of context is presented as part of an online collections database, and this is augmented sometimes using thematic views into the collections. Browsing entire collections or thematic views are the main method for experience of an online collections database. However, these does not express curation in a fair manner.

The digitisation of collections at HCT was a particular focus of all paid staff and volunteers interviewed. As a response to this, a report for HCT was prepared that outlined some of the issues around digitisation and social media. This report is included in Appendix X.

The simplified version of curation that is prevalent within social media further downplays the reality of the role of the curator. This simplification manifests as Web-based tools and resources adopting components of the real world model of curation. These tools encourage users to become 'curators' of digital content. As an example, Pinterest (2014) is a social bookmarking tool which uses curatorial terms to describe many of the actions possible within it. But curation within Pinterest is not comparable to the process of analysis, interpretation and presentation that a curator carries out (Murdoch, 1994; Dean & Edson, 2005; Dallas, 2008; Belcher, 2012; Fenton, A., 2012).

In contrast to the increasing use of 'curation' by social media platforms, efforts by museums to engage with the Web are frustrated by the lack of functionality online through which curatorial practice can be adequately expressed. This has compounded the slow uptake of the social Web by the sector. In a museums context, it is less obvious for a curator how to make use of the Web to share or augment practice than it for other roles within a museum. For example, for a marketing professional in a local museum, the potential of social media to augment a marketing campaign for an exhibition in order to sell more tickets is clear. This was examined in the previous approach. For an archaeology curator in a local museum, the way forward is less palpable.

For many museums, the Web has represented a new platform on which to publish information about collections. This has been predominately achieved through the use of websites and online collections databases. As discussed above, the collections database is a transference of a real world activity onto the online world. The digital functionality of an online collections database is seen to augment the off-line version (Bayne, *et al.*, 2009; Cameron, 2010; Beale, 2011; Bertacchini & Morando, 2013). But essentially the online collections database and the off-line collections database are fulfilling the same function. Web 2.0 and social media were seen to present a potential further augmentation for collections databases (Parry, 2010: 14). A substantial number of museums incorporated social media functionality into their online collections. Social tagging of objects with personally derived metadata became increasingly popular, these were often referred to as folksonomies (Chun, *et al.*, 2006; Trant, 2007). Folksonomies are classification schemes derived from personal reactions to content. For example, photographs in a collection can be tagged as 'cute' or 'scary' in addition to the more conventional descriptive terms utilised by curators. But the user-created contextual records of objects are still a recreation of a real world activity and are not a fair representation of curatorial skill.

Increasingly, information that would traditionally have been accessed through institutions such as museums is accessed through the Web (Sparrow, *et al.*, 2011). Attitudes to entertainment and to learning, both key aims for museums, are also changing through increased use of the Web (Dutton & Grant, 2011; Held, *et al.*, 2012). These changes are having a profound effect on the possibilities for engaging with local museums in particular. These smaller, locally focused museums have not historically been very effective in expressing their contribution to society beyond quite didactic ideas of learning. There is little notion, for example, of local museums as a place for awe and wonder. Unlike national museums, local museums are not generally synonymous with aesthetically impressive, unique artefacts in the public imagination.

In addition to the issue of a lack of provision online for advice on the expression of curatorial practice through the Web, the mechanisms for sharing digital content are not suitable for the way in which the Web has evolved. Methods for sharing content online do not fit the way in which a museum manages ownership of items in a collection. Licensing is a major barrier to improving access to collections online for local museums. Open licenses, such as Creative Commons (CC) licensing (2013), represent a way for cultural heritage organisations to free up content so that it can be shared on the Web (Eschenfelder & Caswell, 2010). The availability of digital licensing is not enough to overcome the complexities of ownership of digital museum collection content however (Purday, 2010).

Interviews with HCT signified a substantial barrier to sharing digital content on the Web due to attitudes to income generation from governing bodies. This is discussed in further detail in Appendix I. There are other barriers. Curators willing to share digital images of objects may often be unable to do so due to historically conflicting ownership rights. In the case of photographs of object, in many instances a professional photographer has been paid for the use of images within a particular context, for example in an online collections database. The agreement that exists for this work is unlikely to include the reuse of images in different cases, or indeed the sharing of images via online collections hosted by other organisations. Both obstacles occur at HCT.

In some cases, the Web is seen by local museums having a direct negative impact on visits to museums. In the area of social history, a key focus for local museums, the Web is rapidly catching up as a resource for those researching into personal and family histories and also as a space for the discovery of objects relating to local heritage (CIPFA, 2011). Significantly fewer digitised items have been shared by museums than by libraries or archives (Karvonen, 2010: 218; Fusion Research & Analytics, 2012: 6). Local museums need to respond to this change and increase their digital presence in order to be seen to be play an active part in local communities. For archaeology collections in local museums, the availability of locally focused archaeological information online is less advanced than in the area of local history and there are fewer commercial endeavours that challenge the precedence of the local museum as a key resource. This means that there is an opportunity for local museums caring for archaeological archives to lead the way in the development of methodologies for engaging with social media on an institutional basis.

There are several national projects that are resulting in information about archaeological data being increasingly available on the Web. These include resources such as the BM's DCMS funded

Portable Antiquities Scheme (PAS) (2014), Historic England's PastScape (2014), Heritage Explorer (2014), and Heritage Gateway (2014), EU supported Europeana (2013), and the ADS's ArchSearch (2014). Involvement from local museums to these resources is varied. In the case of Europeana, local museums were encouraged to contribute metadata to be presented through a national aggregation site supported by the Collections Trust (CT). This website was called Culture Grid (2013). Culture Grid used Open Government License (OGL) compliant metadata to present collection in a centralised index (National Archives, 2014). However, despite enthusiasm for the idea of Culture Grid, support for local museums to take part has recently been withdrawn after only eight years online.

The changes to Culture Grid are due to the lack of take-up by local museums as only 10% are currently represented (Collections Trust, 2014g). This has led much to frustration for local museums and for the CT (*op cit.*). In the highly irregular structure of the Web (Barabási, *et al.*, 2000; Kolbitsch & Maurer, 2006; Halavais, 2008), eight years can herald substantial changes. For local museums, this time period is less significant in relation to changes in practice (Bannister & Connolly, 2014). At HCT, the changes to Culture Grid was mentioned by several people as an example of the barriers to uptake of technology. Attitudes were that this seemed like a good option for sharing collections data, but that more time was needed to prepare collections data for inclusion into Europeana. The cancellation of support for the Culture Grid aggregator illustrates it can be difficult for local museums to participate in centralised national initiatives because of lack of resource.

4.4.9 Implementation 3 - Little institutional buy-in

Standalone social media accounts away from organisational presence and individually maintained.

The use of existing social media platforms and tools to establish standalone user accounts on the behalf of museums is popular. Figures 18 to 20 overleaf illustrate different accounts for one organisation.



Figure 18 - Example of a social media user account. The BM on tumblr (2014j).

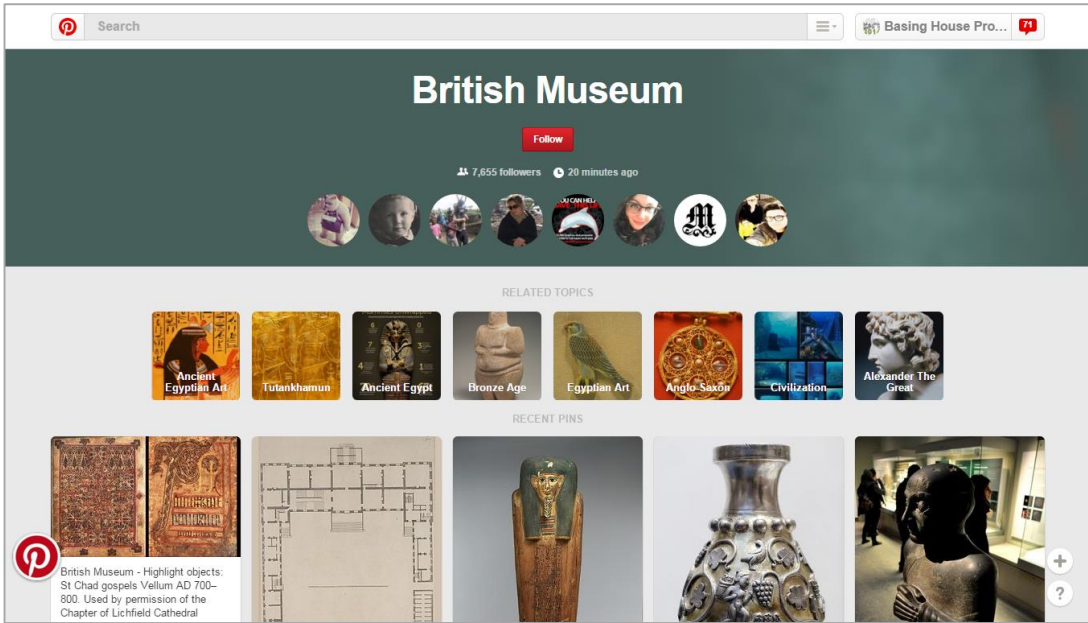


Figure 19 - Example of a social media user account. The BM on Pinterest (2014h).

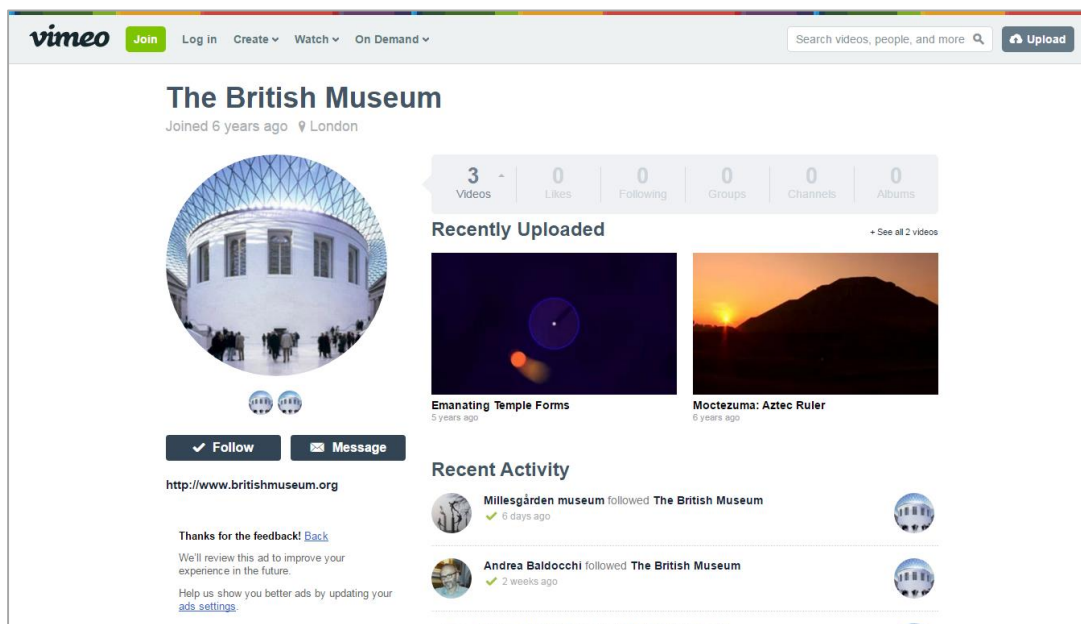


Figure 20 - Example of a social media user account. The BM on Vimeo (2014n).

This approach tends to be less institutionally driven and, especially in the instance of local museums, relies more on individual innovation in social media use for a particular need. This implementation can lead to instances of misuse of tools due to lack of skills. For instance, organisations can use Facebook to provide Pages or Groups for users to interact with digital content. Some museums use individual user accounts (Profiles) instead of Pages or Groups. There are substantial differences in the potential functionality of these pages. Most significantly, analytics available for Groups and Pages are not possible for Profiles which could impact negatively on use tied to objectives. Figures 21 to 23 overleaf illustrate the differences between types of user accounts in Facebook.

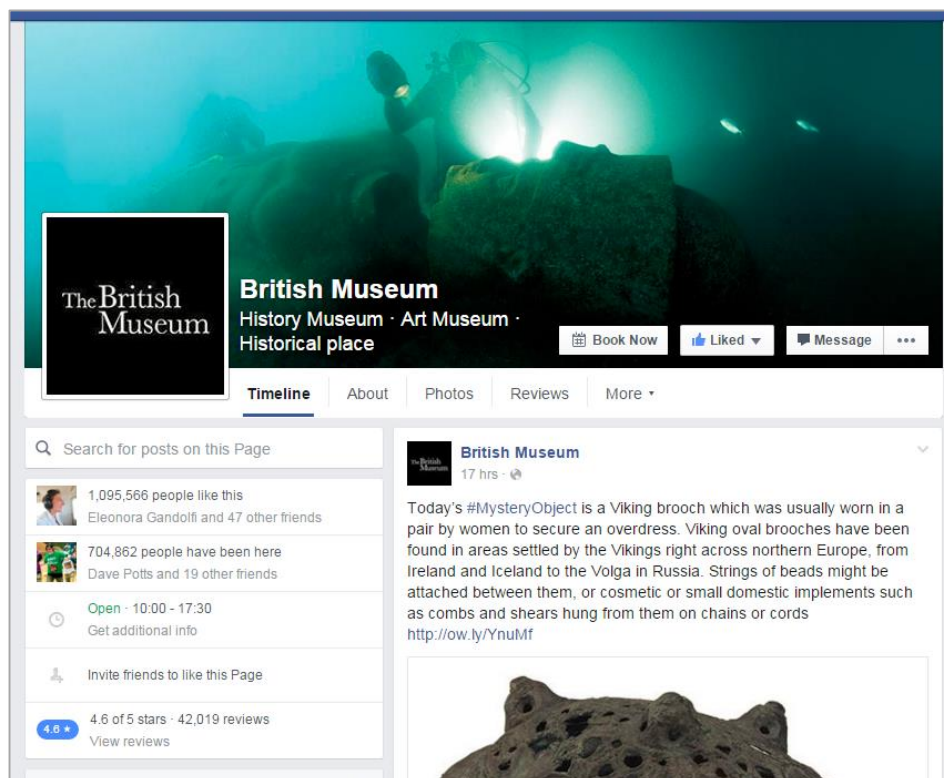


Figure 21 - An example of a museum using a Facebook Page (British Museum, 2014e).

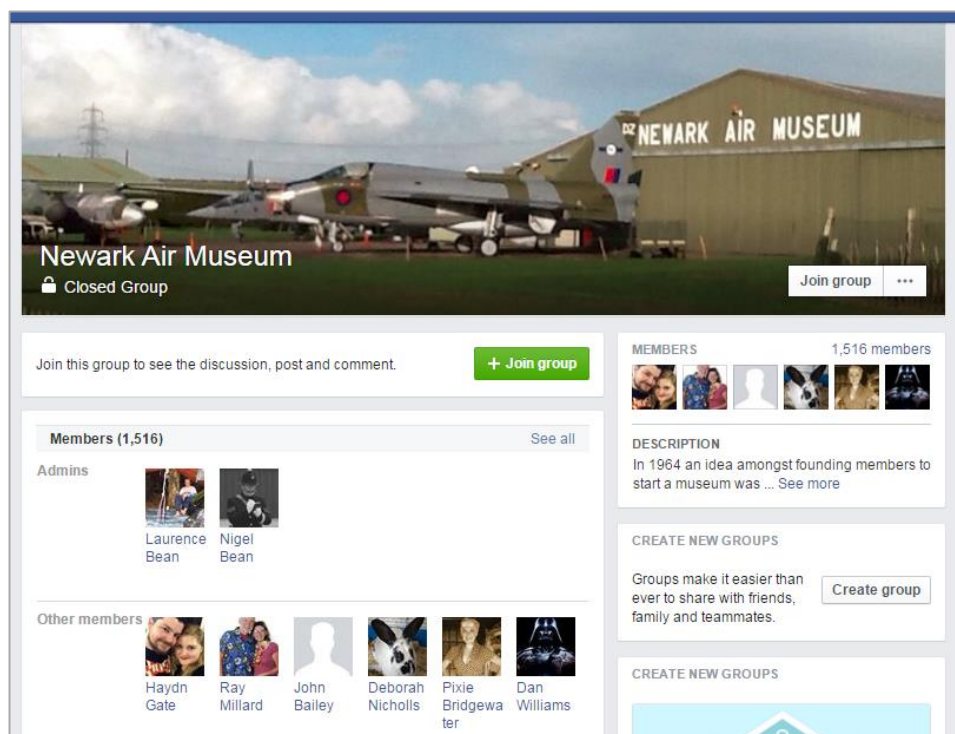


Figure 22 - An example of a museum using a Facebook Group (Newark Air Museum, 2014).



Figure 23 - An example of a museum using a Facebook Profile (Museu Municipal de Jahu, 2014).

This implementation social media does not require institutional interest. Any representative of an organisation can sign up for a user account in a social media tool or network. This free-form use of social media has led to a climate of casual social media use, which is often not tied to strategic aims. For local museums, this approach offers the easiest way to use social media, and it seems to be the most popular implementation within these kinds of organisations. This was reflected in the comments by all participants regarding the Hampshire Archaeology Wordpress blog that is reviewed as part of the audit in Appendix I.

4.5 Developing strategies to overcome the crisis

This thesis is dedicated to understanding why local museums have had limited success to date with social media. This thesis is also concerned with identifying ways that social media can help with the crisis of local museums. In order to achieve these goals, this thesis will develop strategies to overcome limitations to success by building a more nuanced understanding of the shape of social media that is more aligned to local museums' strategic aims. This occurs through the identification of the intersection between social media and local museums and the exploration of both as entities that can contribute to the improvement of one another.

This thesis trials the use of speculative design in the adoption of social media at HCT. The approach of speculative design is popular in areas such as human computer interaction and provides an opportunity to quickly evaluate potential solutions to challenges for HCT's uptake of social media to improve experiences with objects in the collections. The aim of the design process for proposals was to provide projects that were socially responsive (Bason, 2010, Dunleavy & Carrera, 2013; Yee, *et al.*, 2013), and that supported the major aims of HCT.

The Web is increasingly an essential part of everyday life for many people in the UK (ONS, 2015a). Social media use makes up a substantial proportion of Web use in this country, with just under 80% of all adults in the UK using the Internet for social networking on a daily basis (*op cit.*). Although over 70% of all adults in the UK could be said to have access to the Internet everyday (ONS, 2013: 7), this access can occur on a casual basis and does not necessarily equate to regular use of the Web. The uptake of the Web as an interface to the Internet in the UK is around three-quarters of the population (*op cit.*), and two-thirds of adults use social networks (Ofcom, 2014: 38).

Figures also show that most social media user accounts are with Facebook (*ibid.*: 39), but that the popularity of this platform is decreasing with younger users (*op cit.*). Other social networking platforms and tools have much lower uptake numbers and are currently biased towards higher socio-economic groups (*ibid.*: 51; Wikipedia, 2015a). This disparity points to a general problem in the inequalities in audiences. This would be manifest online if local museums were to engage with social media as it is, with the current structure and uses unchallenged.

In order to reduce digital inequity, there would need to be substantial changes within the strategic organisational level uptake of social media in order for local museums to improve use of social media by individuals. Local museums have an expertise in providing support for the building of individual and community identity, and as such are ideally placed to respond to the inequalities that are endemic within social media.

4.6 Examining technological determinism from a use-perspective

Within the sector, expectations of local museums are being impacted by the Web. Society is currently experiencing a shift towards increasingly prevalent technology (Goggin, 2006; Kitchin & Dodge, 2011). Improvement in access to the Internet has resulted in a change in expectations of the availability and make-up of cultural experiences (Akehurst, 2009; Ram, *et al.*, 2011; Näsi, *et*

al., 2012; Sigala, *et al.*, 2012; Law, *et al.*, 2014). To date, there has been little research about the impact of the Web on the *role* of local museums. Most work has focused instead on the practicalities of moving current activities of museums online.

As discussed above, efforts to meet the challenges highlighted in the discussion of the crisis of local museums outlined above have focused predominately on three major uses of social media. Local museums are attempting to match national museums in their use of social media and there has been little change to the fundamental offer of a local museum via these online channels.

The three approaches described above do not make use of social media as a way to innovate museum practice. Instead, social media is used to support existing undertakings. Each of these approaches manifests at HCT, and is a reasonable reaction by smaller, locally focused museums to the challenge of incorporating social media into activities. The approaches have been borne out of the rhetoric of social media as networks, tools and platforms that can be used in different scenarios to bring about change. However, none of the approaches incorporate the major components of social media beyond the tools themselves.

There is a clear reason why these approaches have been adopted and why this has not led to innovation in practice. These approaches are manifest in projects that are technologically deterministic. Social media tools and platforms are identified by museums professionals as offering potential reach to particular audiences. Specific tools are then used to communicate a specific message in line with the aims of the museum. Amongst the complex ecosystem of memory institutions (archives, museums, and libraries), museums seem to be lagging behind in reinventing themselves as socially relevant institutions (Korte, 2010). This is beginning to impact negatively on people's attitudes to local museums as places to engage with heritage. This is highlighted within the sector by prominent researchers in the field of museum studies and heritage studies such as Witcomb and Buckley (2013). This thesis argues that local museums can make a unique contribution to the shaping of the Web. As specialists in the expression of heritage through objects, local museums have stories to tell that are not currently available online. But in addition to experience of accounts of the heritage of humanity, which are available also at other types of museums, local museums can foster a sense of belonging and of place that is constructed through provision of a space for negotiation of personal and community identity. Local museums offer an experience of curiosity and wonder that is integral to a museum experience.

Up until relatively recently in the history of the development of the idea of a museum, cultural heritage institutions were considered to have a monopoly on content discovery for the history of humanity (MacDonald & Alsford, 1991; Rowley & Hartley, 2008). Libraries, archives and museums have acted as conduits through which people access knowledge (Hooper-Greenhill, 1992b; Black, 2007). Increasingly however, information that has been accessed through a cultural heritage organisation is available online from a multitude of sources of varying degrees of legitimacy. The nature of the Web as a distributed network that has organically developed has led to digital content often being unfindable (Barabási, *et al.*, 2000; Kolbitsch & Maurer, 2006). This organic profile has helped information organisations such as museums to maintain relevance in this particular aspect of their role. However, the access to, and findability of, information on the Web is evolving rapidly (Halavais, 2008). Museums could respond to this.

4.7 Conclusion - Local museums are an ideal match with social media

Local museums seem to be using social media in an ill-informed manner, as findings in this chapter suggest. They are attempting to engage with pre-defined audiences by using traditional forms of curatorial practice transposed onto a digital platform. Current uses do not engage with the components of social media, engaging only with the tools and platforms and with existing digital content from other organisational activities. The following chapters will examine the make-up of a social media specifically for local museums and the role of people in this model. Local museums are approaching social media as ready-made tools for marketing of real-world activities, such as programmes of exhibitions and events. This kind of use assumes that social media is merely an extension of printed matter, as a new medium on which to publish content digitally and online.

Local museums are ideally suited to contribute to society's understanding of the impact of social media on everyday life. The UK museums sector has a long history in working to integrate technologies into their work, as is evidenced in the establishment of the Information Retrieval Group of the MA in 1967 (Parry, 2010: xii). In the 1990s, there was recognition of the need to engage with digital tools, and museum education experts wrote that visitors expected technology as part of their museum experience (Falk & Dierking, 1992: 67). Yet in museum studies, Parry talks of an essential incompatibility between the concept of the computer and the concept of the museum (2010: 2). Museums professionals have been wrestling with the issue of how experiences of the museum could take place within new media environments, and this is evidenced in

publications from the first few years of the millennium (Watkins & Russo, 2005). The museums sector has been attempting to deal with the effect that new literacies and new audiences through social media will have on museum engagement (Russo, *et al.*, 2006).

Work in the sector in the early 2000s led to the trend of adopting online modes of communication to aid the fulfilment of the museum's objectives through practices such as the use of virtual environments to support social interactions (Galani & Chalmers, 2010). Communication of collections, alongside access to collections, is at the heart of the museum's toolkit for evidencing relevance to society and for fulfilling purpose within that society recognised by national associations and bodies such as AAM and ICOM (Center for the Future of Museums, 2011; Desvallees & Mairesse, 2010). The Web has been seen as an ideal tool for achieving this aim. Social media in particular seems to fit with objectives due to its emphasis on communities and communication. Before the advent of social media, museums were making novel use of the Web as a way to communicate with audiences (Schweibenz, 1998; McLaughlin, *et al.*, 1999). The rhetoric around social media has proved a distraction to experimentation with this new medium by museums. This idealist discourse has disallowed innovative uses of social media in support of the achievement of museums' aims.

It is essential that local museums engage with social media as a space away from the limiting vocabularies and conceptualisations currently used by commentators on the Web. One popular approach has been to understand the Web as a linear technological advancement from the printing press and telecommunications (Naughton, 2011). Within this is the idea of the Web as a media, thereby assuming that the Web is similar to other mediums for publication, augmenting paper or moving-image based media. There are dangers in adopting typologies of development such as this and in comparing the Web to communication media in this way (Winston, 1998), is reductive. It does not allow for the full impact on the Web as an influencer in society to be expressed. The Web cannot be understood through merely applying non-representational theory (Haraway, 1984; Massey, 1994; Barad, 2007). This does not take into account the representation of the social via the Internet (Couldry, 2012). Much of the vocabulary and skeuomorphs that are still used to explain the Web come from the first few years of the development of the printing press, and the development of computers, which have also been considered as a continuation from print (Feather, 2013). Placing the Web within this historical trajectory is limiting our ability to fully comprehend the possibilities of the Web for society. We need to consider the economic,

Chapter 4

political and social context of these conventions in order to understand how the Web is changing our lives (*ibid.*: 114). This is particularly in reference to the idea of the information revolution.

In the following chapters, this thesis will outline ways that local museums can work to overcome the crisis of purpose in contemporary society. Central to this, is the re-characterisation of local museums as spaces for experience of heritage. Local heritage represents a significant opportunity for local museums currently struggling to mimic other types of museums. The following chapter will examine a context-specific instance of social media adoption by a local museum. It will build on the analysis of Chapter 3 and 4 to assess how local museums can leverage the opportunity of social media in order to facilitate this experience.

Chapter 5 will examine the actionable properties of the Web as it is used to enable connections between the world and people. Enabling technology to act is based on an advancement of Gibson's theory of affordances to incorporate socialised affordances (Costall, 1995). In this theory, the Web is a technology that acts with affordances that are socially constructed (Schraube, 2009). The following chapter argues for a refocusing on the materiality of the *actionality* of the Web, over the current focus on the physical make-up of the Web and the social interactions that occur through the Web (Hutchby, 2001: 448). This thesis will outline the possibility for museums and space mediated by the Web by exploring how the technological affordances of social media can be enabling.

Chapter 5: Underlying affordances of social media

5.1 Introduction

As demonstrated in the previous chapter, the use of social media by local museums has been decoupled from broader strategic planning. It has tended to be driven by the unsystematic adoption of particular social media platforms or technologies, based on localised needs for communicating with audiences. Understandings of the affordances of social media for effective use is an important part of the planning and implementation process for any digital technology (Ostrom, *et al.*, 2015), but skills and knowledge in this area are highly specialised and may be unavailable to local museums. Social media are a single example of Web technology and as such can only be fully understood in terms of the affordances of the Web as an interface to the Internet. This chapter presents a critical analysis of social media technology and use which has been designed to be relevant to museums professionals. This new understanding of the affordances of the Web will form the foundation of a social media framework (the MUSM framework) through which local museums can develop more effective and creative actions online. The first step to development of this framework is the interrogation of social media as it interfaces with the needs of local museums in order to develop new approaches to social media implementation. This chapter discusses these new approaches.

The contribution of the Web to society has been often been understood in terms of narratives of transformation, invention and progress (Misa, 2004; Friedel, 2007; Briggs & Burke, 2010). This is in line with broader trends in contemporary Western society to characterise technology in terms of innovation, disruption, and novelty (Edgerton, 2006). This emphasis upon disruption and innovation has impacted on public understandings of social media and has obscured the underlying social dynamics and affordances of the technology. Emphasis on social media as a form of mass communication with the potential of mass mobilisation as discussed in the previous chapters has effected perceptions of social media by organisations like museums, and has led to an under-appreciation of these tools to enable meaningful individual and local dialogue.

Increasingly, people are able to engage with local heritage through new spaces online away from collecting organisations. There are increasing numbers of special interest groups using social networking platforms to share content about local heritage. Audiences that have traditionally been considered by local museums as hard to reach can now potentially engage with heritage

through the Web rather than needing to visit a museum physically. Initiatives such as Retronaut (2013) and Shorpy (2013) that share historical images via social media are evidencing how experience of heritage can be facilitated away from institutional control.

Local museums are not currently able to offer the kinds of experiences of heritage through the Web that social networking platform-based communities like this can provide. For instance, there are many self-organised communities using Groups and Pages on Facebook that are dedicated to sharing information about local heritage. This can lead to instances of activism facilitated through social media, such as protection of the historic environment (Graham, 2012; McGehee, *et al.*, 2014). There is very little research available about this kind of community-led manifestation of heritage in social media. It seems that the commitment necessary for users to locate and share content for this purpose and to translate activity online to real world action is unfeasible for already over-committed paid staff in local museums. This thesis contributes new research to this body of knowledge.

To date, social media has been used by local museums predominately as a way to connect with audiences by engaging with popular platforms for communication (Howard & Jones, 2004: 325-32; Bauchspies, *et al.*, 2006: 73-90; Cavanagh, 2007: 139-50). This is symptomatic of an innovation-centric conceptualisation of the Web. Edgerton opposes this way of thinking by arguing that a use-based approach is required if we are to engage effectively with the affordances of technology (2006: 10). Interpretation of social media in this chapter is grounded in an understanding of technology as practice (Sterne, 2003; Pursell, 2010). This traces the ways in which use of the Web impacts on people's experience of the Web and of the world. This chapter argues for an understanding of social media as comprised of actions performed by many people, rather than being composed of tools and platforms which carry with them the abstract potential for radical innovation. Overcoming digital exclusion could be a key concern for local museums as there is an identified link to social exclusion (Helsper, 2012). The later sections of this chapter focus on the use of social media for actions that are key to the role of local museums, most particularly the expression of identity through engagement with heritage.

Social media also presents a challenge to the development of identity at a local level, and this is directly relevant to the role of local museums as they are tied closely to community level identity (Witcomb, 2003: 82). Local museums are divided between fulfilling government ideas of community and supporting actual on the ground community concerns. These can often have conflicting needs. Social media seems to be a good fit for these divergent agendas as it provides a

space to develop new communities centred on needs that can have overlapping membership. Chapter 3 examined how the responsibility of local museums to the development and expression of local identity is diminished because of the lack of clarity between delivering services online that fulfil governing aims as well as incorporating requirements at an individual level. Problems in the uptake of social media compound the lack of clarity of objectives of technology use.

The previous chapter argued that three major approaches have underpinned adoption by local museums of social media. Firstly, local museums continue to focus predominately on the significance of objects through the use of websites and online collections databases that have social media functionality built into them. Secondly, local museums attempt to shoehorn social media into current forms of curatorial practice. This approach has been informed by national museums' approaches to curation as discussed in Chapter 3. Thirdly, local museums use social media as an extension to printed forms of marketing and communication. This approach focuses predominately on broadcasting outwards to pre-defined audiences using social media as a megaphone for activities.

These common uses of social media do not consider the affordances of technology or the social dynamics which underpin social media use. As such, they negatively affect the ability of local government run museums to contribute to the Web in a meaningful way. Research into the use of social media for heritage is newly established but initial studies are finding that positive involvement in local heritage short-term through social media will not necessarily result in achievement of key goals for museums in the long-term, such as the strengthening of social capital (Newman & McLean, 2006; Davis, 2007; Perkin, 2010, Hampton, *et al.*, 2011).

As a response to this, this chapter outlines more appropriate approaches to social media for local museums that acknowledge the affordances of the Web and are defined by community requirements rather than by collections or by management structure. This analysis is used in the following chapters to design a guide for LAMAs wishing to engage with the Web in a manner that is sustainable, improves alignment of strategic aims with people's expectations, and contributes to the shaping of the Web itself.

Appendix O provides additional background to this chapter. It contains a historical overview from a use-based perspective of the development of social media as an interface onto the Web and examines how this has impacted on perceptions of the contribution of social media to society.

5.2 Overcoming technological determinism

The use of Web technologies by local museums is in a state of flux. As discussed in previous chapters, this instability can in part be attributed to the proliferation of digital communication in knowledge building around heritage. Activities once almost exclusively associated with the museum now take place in a range of online contexts. Particularly pertinent for local museums are the opportunities that social media seems to provide for the negotiation of social bonds and expression of social identity. These digital advances have not removed the need for local museums but in order to successfully play an active role in helping people engage with the past, they could adopt new ways of using digital technologies online in order to confront the challenges they face.

Research into the use of social media in the heritage sector has described social media as an ideal fit for staging heritage online, and as a way to make sense of memories by interacting with the past as it is represented online (Giaccardi, 2012: 1). Heritage occurs through interactions between people (Byrne, 2008: 241). This means that in using social media, local museums could endeavour to facilitate context building through people's connections with collections. Emphasis to date has not however reflected on the potential of the space where people and museums meet within social media. Instead, focus has been on the use of social media by museums as a centrally managed exercise. This is partly due to assumptions about the nature of the Web in the sector, commonly perceived to be what Sterne refers to as: "*a static megalith*" (2003). In reality, the Web is not at all static: People shape and change the Web continually through each and every interaction with it. This is because the Web is, as the name suggests, a complex network of linked data that is made up of connections and renderings of content that vary depending on context of use. In order to make sense of the data on the Web, most Web users use interfaces such as search engines, websites, and apps to filter information so that meaningful connections between content can be found. This results in a highly idiosyncratic, personally shaped experience of the Web.

In attempting to make sense of this messy Web, increasingly personalised interfaces narrow content so that it fulfils individual needs. For instance, social networking sites like Facebook are increasingly acting as a predominant sources of news (Gil de Zúñiga, *et al.*, 2012; Hermida, *et al.*, 2012; Messing & Westwood, 2014). Social media tools and platforms are achieving this narrowing effect by filtering content based on user behaviours and by categorising users to target suggested

content, like adverts for products. By increasing personalisation in this way, social media reduces the flexibility of the Web.

The Web can be understood as a site in which to critically pick apart the relationship between embodied experience and societal structures (Sterne, 2003: 369). This Bourdieusian approach is a useful interpretation for local museums that examine and interpret the relationship between individual memory, community memory, and the contemporary world. If the Web is made up of enacted experience of the world that is shaped by societal constructions, then local museums have a responsibility to support that experience through improving the shape of the Web and reducing the narrowing effect. Local museums can perhaps enable a more democratic exploration of society and of heritage through experiences with social media. By engaging with social media in a responsible manner and creating content that extends the reach of heritage as it is represented online, local museums can kick-start the organic reshaping of the Web by its users.

Commentators on the function of the Web in society maintain that it is altering the ways that social activities are carried out (Couldry, 2012; Feather, 2013). Research into social media is still in its early stages due to the newness of the phenomenon, but initial research points indicates that as well as altering activities carried out in everyday life, social media is reinforcing already existing social manifestations, both positive and negative. This is discussed in detail below. The increasing personalisation of the Web is a signifier of this. The use of tools and platforms that personalise experience of content through filtering content are representative of trends in development of the Web more generally. With personalisation, increased convenience is achieved through loss of control over perspective. In their role as facilitators of heritage experience, local museums could find ways to react against the inequalities that the Web supports, to improve the social construction of the Web.

The common definition of social media tends to be limited to the software that facilitates social interactions online. This is partly due to an inaccuracy of conceptions of social media as a technical rather than social phenomenon. This is an incongruity that is central to the argument contained in this thesis. Social media is generally explained as a suite of tools used to access content on the Internet through social actions (Smith, 2009; Kaplan & Haenlein, 2010; Shirky, 2011). There are several well-known platforms that are commonly referred to as social media. These include platforms like Facebook and micro-blogging platform Twitter. In addition to social networking platforms, social media also includes media sharing and file sharing tools, such as Flickr (2013), and social bookmarking tools, such as Pinterest. However, as was indicated in the

definition of social media in the methodology chapter, the term *social media* is not straightforward. It is sometimes used to refer to other kinds of tools and platforms that have social components. For example, sites that support project collaboration and participatory content creation, such as Wikipedia (2014a), are also referred to as social media. The inclusion of these types of resources highlights the complexity of the definition of social media as tools at all.

In addition to the ambiguity in apparatus, social media is made up of more these tools. Networks of people play a significant part in the enablement of social media. Research into social action such as the revolutions discussed in Chapter 3 (Jansen, 2010; Eltantawy & Wiest, 2011; Shirky, 2011; Gerbaudo, 2012; Juris, 2012; Lim, 2012; Tufekci & Wilson, 2012; van Dijck, 2013a; Reilly, 2014), demonstrates that the role of social media tools and platforms has been unduly attributed. This underlying misapplication of social action onto the technology rather than the people using it is at the centre of a general mischaracterisation of the Web.

A closer examination of the role of social media in the Arab Spring provides an example of this misapplication of action. The Twitter data set from the Egyptian revolution in the beginning of 2011 has been analysed by researchers (Wilson & Dunn, 2011: 1265). The analysis reviewed the impact of the top 200 power users of Twitter on one of the key days in the protests, the *Day of Anger* on the 25th January 2011. Of over 675,000 tweets by nearly 107,000 users, some users had one follower, whilst others had over 41,000. Some users tweeted once, whilst others tweeted close to 4,000 times. The power users are those who had the most influence within this range of connections. Wilson and Dunn's work claims that within the 200 power users, only 25% were based in Egypt and highlights also that Egypt has an Internet access rate of less than 20% of the population (*op cit.*). Frangonikolopoulos & Chapsos summarise the role of social media in the Arab Spring as thus:

"For it was the social media, not formal institutions or political parties, that provided the effective tool for activating the public, for allowing the loose networks of activists and protesters to mobilize, communicate and collaborate." (2012: 18)

However, in this statement, *social media* is an over-simplification of the complex socio-political activist groups that took part in the leveraging of individual action. Several non-governmental organisations (NGOs) and Internet activist groups such as Telecomix and Global Voices, trained protestors to create videos and carry out other tasks necessary for 'citizen journalists' to impact on international news media (Ghannam, 2011; Reissmann & Rosenbach, 2011). The social media

tools and platforms themselves were leveraged through on the ground support by groups and individuals that enabled actions to occur.

This example highlights that additional components are needed in order for social media to occur and to facilitate real world action. Social media comprises of networks of people. These networks use online tools and platforms to create and share social content. All of these components must be present for social media to arise. The components combined result in actions that can be described as social media. Figure 24 below illustrates this action.

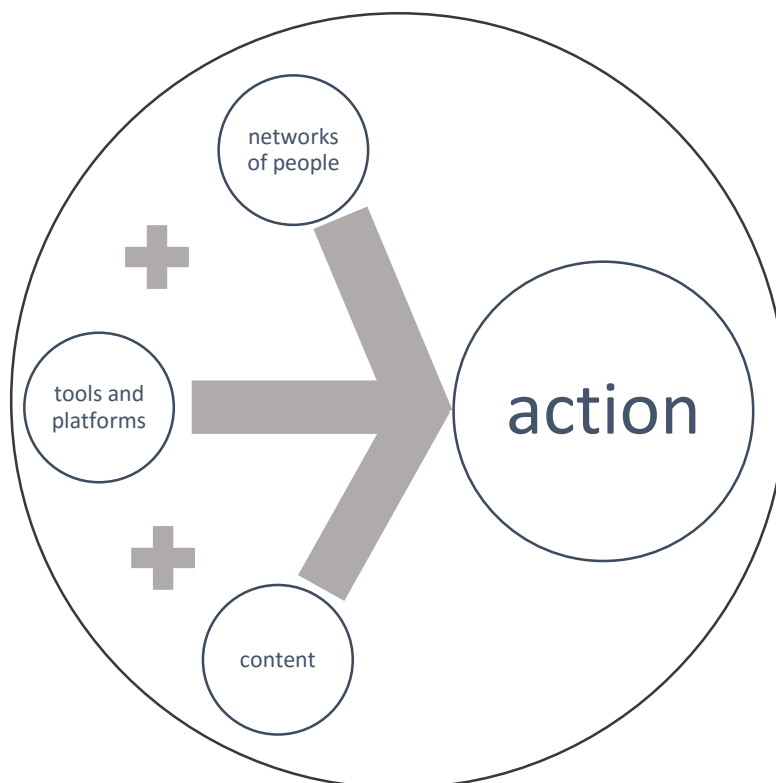


Figure 24 – The relationships between the components of social media

The model of social media expressed in figure 24 above is an augmentation of the basic popular explanation that social media are Internet-based applications that encourage a social experience of digital content (O'Reilly, 2005; Kaplan & Haenlein, 2010). In this augmentation, the need to incorporate analysis of the *use* of social media and the actions that occur as part of it, must be incorporated into analysis of social media. This more nuanced used-based understanding of social media is implemented in this chapter to analyse the relationship of social media with expression of community.

Social media is not synonymous with the Web, but it is treated similarly. Little distinction is made between the experience of social media and the experience of the Web, despite the differences inherent between them. The tools and platforms typically considered to be social media, such as Facebook and Twitter, are rife with issues of inequality. The propensity towards online curation in social media tools, as discussed in Chapter 3, has much in common with the rise in the popularity of free digital labour (Balzer, 2014: 123). This can be seen in social media through models such as crowdsourcing which conceals issues surrounding the use of unskilled workers for tasks relating to culture and the arts (Terranova, 2013).

5.3 Recognising the Web as a social machine

As introduced above, there are some social media that are instances of people using the technological apparatuses afforded by the Web to creatively solve real world problems, but these are lesser known as social media per se. For example, mediawiki (2013) is an open source software package upon which the multi-authored encyclopaedia, Wikipedia, is built. Ushahidi (2013), the suite of crowdsourcing tools for data gathering and mapping in locations with limited access to technology, runs on a fork of CodeIgniter (2013), an open source Web application framework. These social media applications offer more than the original model of Web 2.0 (O'Reilly, 2005). See Appendix O for an in-depth discussion of the development of Web 2.0 within the trajectory of the development of the Web and social media.

Resources such as these are representative of the next phase of the Web; the Web as a social machine (Berners-Lee, 1999: 172; Hendler & Berners-Lee, 2010). The term social machine describes a meeting between machines and people (Berners-Lee, 1999: 170-173). People interrelate with digital content and with each other through the machine of the Internet (De Roure, *et al.*, 2013; Smart & Shadbolt, 2014). The social machine manifests through the kinds of technologies that are behind most social media tools and platforms. But it is the use of the resources that leads to them contributing positively to problem-solving for society. Many believe that the combination of the power of machines with the creativity of humans can lead improvements in experience of global information (Hendler & Berners-Lee, 2010; Hall & Tiropanis, 2012: 3863-3864), and can also contribute to the ways in which we are able to address societal challenges, as evidenced by the move to open government portals (data.gov.uk, 2013; data.gov, 2013).

The Web as a social machine has growing traction amongst the research community, but the research at HCT and into the museums sector more generally seemed to demonstrate that the more established perspective of a technologically determined Web with agency was present. As part of this, the impact of social media on society as a mechanism for building social status or driving social change is often interpreted by researchers by means of the network metaphor (Cavanagh, 2007: 23). In this metaphor, behaviours are broken down into connections between actors that can be visualised (Scott, 1991; Watts & Strogatz, 1998; Albert, *et al.*, 1999; Huberman & Adamic, 1999; Kleinberg, 1999; Kleinberg, *et al.*, 1999; Easley & Kleinberg, 2010; Liljegren, 2012). This is understood using Actor Network Theory (ANT) (Albert, *et al.*, 1999; Barabási, 2002; Barabási, *et al.*, 2000).

The major principle underlying ANT is emphasis on the essential social connectedness of an actor (Venturini, 2010). This is not unlike the focus in the museums sector on categorisation of people as audiences in order to design interventions with heritage on the Web. Audiences occur when people connect with a museum. This is perhaps why the idea of the networked Web is such a popular approach within the museums sector. This approach does not however consider the people away from the connection with a museum. At HCT, in discussions with staff involved in producing and sharing content via the social media channels, users were referred to consistently as 'audience'. Social media use at HCT seems to be based on the belief that increasingly advanced technologies will solve societal problems (Bauchspies, *et al.*, 2006). Social media is presenting new kinds of interactions that do not fit with the more traditional notions of an audience. However, conceiving of the Web as a network leads to the removal of agency from actors and from connections between actors, affording agency instead to the Web.

Conceiving the Web with agency focuses on quantifying measurements of power and influence through weighting. This does not consider existing social structures and environmental factors or expressions of cognition (Ucko & Layton, 1999: 12). Potential new directions for the use of the Web for local museums could instead approach the Web as an environment which is shaped and impacted on by human action. This has been gaining popularity for a while (Connolly, 2002). The Web as a social machine specifically, is instead a space within which the meeting of nature and culture can occur (Kitchin & Thrift, 2009: 124-131). As a social machine, the Web is constructed on a socio-technical system and in this system, human and technology are united as "*participant machinery*" (Smart & Shadbolt, 2014: 6855). In this definition, the mechanics of the Web are symbiotically linked to the human affordances of the Web. Social media is seen to be part of the

social machine described above. Interpretive attempts to understand social media describe the Web as a place or space within which human action can be traced (Ucko & Layton, 1999). This approach has much to offer local museums but is currently under-studied within the heritage sector.

5.4 Operationalisation of the social machine for local museums

Chapter 6 will present a new model for social media that is informed by the components of the Web as a social machine. This model represents a way to overcome the issues that manifest through local museums' failure to acknowledge the components illustrated in figure 24 above in their use of social media. In adopting an interpretative approach to the Web as a socially meaningful place, the semantic dimension of the Web can be better recognised (Burbules, 2002: 76). For instance, links between content such as hyperlinks in text or images not only have a navigational but also a semantic aspect to them (*op cit.*). This means that they signify socio-cultural context in two ways. Firstly, they provide connections between content on the Web, and therefore join actors up with expressions of society. Secondly, the semantic nature of the Web means that links are representative of interpretations of content by users. This approach acknowledges the representational significance of content and overcomes the reductionism of the Web as a network.

Social media is a particular manifestation of the relationship between people and the Web. It presents both challenges and opportunities for the museums sector in engaging people with local archaeology collections. A significant issue in the uptake of Web technologies is in understanding of the technical make-up the Web. The establishment of new phenomena online such as crowdsourcing highlights current lack of understanding about the nature of the relationship between people and the Web. There are several instances of adoption of crowdsourcing in the cultural heritage sector (National Maritime Museum, 2013; Victoria & Albert Museum, 2013), but there is currently little critical analysis of the moral implication of this move (Perry & Beale, 2014).

Although social media can sometimes seem to be enacting the social machine, not all users are equally empowered to work within the machine. Instead, the social structures present in the analogue world that promote inequality and reduce social experience manifest in the same form online. For instance, social media is gendered, as evidenced in gender inequity on popular political blogs (Harp & Tremayne, 2006). On social media, prejudices are also translated from the real

world to online spaces. This is evidenced in racial dissent expressed through user comments on YouTube (Ketterly & Laster, 2014).

Within disciplines that have traditionally dealt with the development of museums, since the dot-com bubble burst, the Web is considered via the identification of meaning in social practice, as per Raymond Williams and Stuart Hall (Burrows, 2005; Fuller, 2005; Gane, 2005; Webster, 2005a, 2005b). This approach presents the Web as a new mode of knowledge production. Research in this vein has evidenced how integral the Web is to increased density of communication (Gibbons, *et al.*, 2004), and increased access to knowledge (Freeman & Louçã, 2002; Jaeger & Bertot, 2010). Much media coverage has been given to the idea of the Web as a tool for the democratisation of access to knowledge as discussed in Chapter 3 and 4. This is relevant from the perspective of access to academic research via the Web (Caldas, *et al.*, 2008). Conceiving of the Web as social machine with which meaning can be created through social practice has led to the Web being considered as a key factor in development at a national level. This is achieved through enabling online access to previously inaccessible information relating to the political, social and economic situations (Prasad & Sreedevi, 2007; Jaeger, *et al.*, 2012; Fuchs, 2013). These aspects of the Web are major aims for museums as a way to engage with the Web to increase the impact on a societal level.

The example above and the contemporary idea of the Web as a social machine highlights that the Web has developed within a particular socio-cultural rhetoric. Social media tends to be treated as synonymous with the Web and has also been attributed for active contribution to knowledge production as part of a role of social change. Although the tools and platforms that are part of social media consciously depict a sense of connectedness through users via their user-end architecture (van Dijck, 2013a), the connectedness that they portray is in fact heavily biased. There is research for instance that evidences how social media tools and platforms are technologically structured to favour the companies that manage them (Diamond & Plattner, 2012). This is difficult to evidence, as algorithms and architectures of the software behind the tools are often not available due to the commercially sensitive aspect of this information (Edwards, *et al.*, 2013; Gillespie, 2014: 167). This means that knowledge about the extent of the bias is limited amongst social media users (Diaz, 2008; Van der Hof & Prins, 2008: 117-119; Bucher, 2012; Lasorsa, *et al.*, 2012).

Research into the impact of the Internet on audiences of media is well-established. There are several studies that look at the changing nature of audience as it manifests on the Web (Webster

& Lin, 2002; Green & Jenkins, 2009). This is directly applicable to intended actions by local museums through social media. There are three types of commonly recognised audience: ritualised simple audiences, such as theatre goers, globally dispersed mass audiences, such as television viewers, and fragmented diffused audiences that are not wholly present, such as mobile phone Internet users who simultaneously watch television (Gillespie, 2005: 45). However, much of the research comes out of television studies, and is based on an audience that views media passively (Abercrombie & Longhurst, 1998: 39). In Abercrombie and Longhurst's model, the audience is necessarily isolated. On the Web, it seems that this isolation has been overcome. Social media in particular seems to offer a more connected, collaborative experience of media. However, audiences on the Web are not necessarily active. This is because of the nature of the Web as a managed system that replicates real-world socio-cultural barriers.

Museums excel in communicating with individuals within audiences, therefore overcoming barriers. They are adept at coping with the dominant model of the simple, ritualised audience (Bennett, T., 2005). The fragmented audience however presents a problem for museums, and is the most common instance of an audience through social media (Webster & Ksiazek, 2012). This kind of audience is increasingly dominating. Reflecting this move away from the passive mass audience is the increase in event-based experiences of viewing media that moves away from television sets and makes use of the Web-streaming alongside Web interactivity using social media back channels (Doyle, 2010). Diffuse audience is an audience that is not present within a museum's building, but is remotely accessing the museum. The diffuse audience is likely to multi-task and not afford much attention to the museum amongst other activities. Museums experienced by the diffused audience are museums brought into everyday life (Longhurst, *et al.*, 2004). Social media offers a way for museums to have a presence with diffused audiences and to vie for attention online. By moving towards distributed presence through social media, local museums may be able to overcome the shift in audience model that the Web has brought about.

Societal norms seem to be shifting towards favouring more democratically created knowledge and this is partly a result of an increase in online experiences of information gathering (Jarvenpaa & Majchrzak, 2010; Kaplan & Haenlein, 2010; Powell, *et al.*, 2011). This is in opposition to the traditional idea of museums as places to experience fixed narratives of the past as outlined in Chapter 3. As information is increasingly accessed through the Web, people are becoming more mistrustful of Web derived information (Johnson & Kaye, 2009; Kata, 2010; Tustin, 2010; Pan & Chiou, 2011). It is difficult on the Web to differentiate between institutionally derived and

imitative information, and ensuring veracity of content can be problematic (Beldad, *et al.*, 2010; Thorson, *et al.*, 2010; Dickinger, 2011; Powell, *et al.*, 2011). For museums, there is currently a trend towards audience-created interpretation online. This is apparent from the examination of existing Web use. It seems that some museums are making use of social media to enable user-sourced exhibition content. However, when these factors are combined, this could lead to a negative impact on attitudes about the trustworthiness of information on the Web that originates from museums.

It would seem then, that social media is an ill-fit for local museums. However, this chapter argues that the Web is driving changes in expectations for knowledge institutions such as museums. By understanding how expectations have changed, local museums can improve the development of the Web as a social machine rather than as a network. Local museums can enable the social machine to occur through informed use of social media. However, assumptions about social media should be interrogated in order to better understand how the social machine can be facilitated.

The following sections consider the use-based experience of social media from a societal, local, and individual experience as a method for identifying the affordances of social media most pertinent to the intersection between social media and local museums.

5.5 Characteristics of social media from a societal perspective

Expectations of social media generally are very high. It is assumed that social media is answerable to higher societal responsibilities, and rhetoric around social media illustrates how expectations for these tools and platforms are tied into notions of social change through collective action. Just as the Gutenberg Press has been described as the social agent for revolutionary moments like the Reformation and the English Civil War (Briggs & Burke, 2010: 61-64), the Web has been heralded as the social agent for the revolutions of the recent years (Shirky, 2011). The Web has been claimed as a key enabler in revolutions in Egypt (Eltantawy & Wiest, 2011; Lim, 2012; Tufekci & Wilson, 2012), in Syria (Jansen, 2010), and in protests such as the Occupy movements (Gerbaudo, 2012; Juris, 2012; Reilly, 2014: 134). The Web's role as a major driver in the manifestation of social change for the betterment of society has been questioned however, as is discussed earlier in this chapter. The demographic changes in access to the Web and the problems are put forward as reasons that this is not the case. As the following discussion will demonstrate, examination of the potential of the Web to drive social change could also consider the ability of the Web to act as

a social agent through the social machine. Current interpretations afford the Web with an agency that it does not have. Ultimately, the Web is made up of the actions of people, and it is these people on which any study of the Web should focus. This misdirection of interpretations of the Web is at the heart of the current failure of local museums to engage effectively with social media.

Over half of Internet users use social networking systems (Duggan & Smith, 2014). But this increase in the use of social media platforms and tools by Web Internet users does not necessarily mean that people are being more social online. The increase in use of social media may seem to be representative of an increase in participation of “*cultural production*” (Schaefer, 2011: 10), but this is not necessarily the case as most social media are not open or co-productive environments.

Social networking platforms such as Facebook require high levels of commitment from their user-base to continue to exist. In the example of Facebook, in addition to sponsored information being presented alongside user content, profile updates must be regularly negotiated as decision-making about changes to amounts of information on view at a number of levels from public to private occurs. Facebook users have concerns over privacy (Waters & Ackerman, 2011; Chen, 2013; Egelman, 2013), but this is weighed up in a cost-benefit decision against the benefit gained by being present within the social network (Johnson, *et al.*, 2012). In this complex relationship between the user and the platform, Facebook does not give precedence to the social experience, but instead favours individual experience of content. The level of interaction required for social networking platforms is much higher than that of other Web-based resources, such as websites. This makes social media a useful study for this thesis as it is perpetuated by its users and can only exist through engagement. Much like a museum, social media relies on audience.

Social media purports to require social participation by that audience in order to function, but in fact actual engagement occurs when people buy into the myth of social media as tools and platforms that improve society. Social media facilitates interactions between users through digital content, and tied into the projection of the self. This means that digital content is taken up and used by users if it fits into the projection of the self within social media. This is a phenomenon that local museums could consider.

5.6 Characteristics of social media from a community level perspective

Social media is being heralded as a way to provide a springboard toward bridging the digital divide worldwide (Kaplan & Haenlein, 2010). But this is not the case with the actual makeup of the users of social media who create the majority of digital content. For instance, collaboratively edited social media online encyclopaedia Wikipedia has a well-established reputation as an online resource for general knowledge. Yet Wikipedia acknowledges that the average person who edits content for Wikipedia (known as a Wikipedian) is male and technically inclined. A Wikipedian is also:

“formally educated, an English speaker..., aged 15-49, from a majority-Christian country, from a developed nation, from the Northern Hemisphere, and likely to be employed as a white-collar worker or enrolled as a student” (Wikipedia, 2015a).

These are the users who are driving the increasing homogeneity of experience of the Web. The makeup of the user base of social media is a concern for local museums engaging with tools and platforms online, but there is also the significance of the impact of the Web on identity itself. On a more local level, there is potential for local museums to facilitate new kinds of early adopters by enabling people from marginal communities and lower socio-economic groups to discover social media through engaging with collections online.

Despite the many factors limiting access to content on the Web (Gane, 2005: 475; Halavais, 2008: 3; Pariser, 2011; Simpson, 2012; Miniwatts, 2013; de Corrière & Taylor, 2014), there is a significant increase globally in access to information. Information is more freely available today than it ever has been and this is partially due to the Web. It does not necessarily follow however that awareness of the value of information has risen accordingly. Individuals are sharing information about themselves online within increasing frequency, and this data is being syndicated and replicated across the Web. In the majority of cases, people are not aware of the extent to which this data is being collected and kept, or of the value of information about their online behaviours (O’Hara, 2013). The essential issue here is that the Web demands much of its users in return for the information to which it provides access. The emphasis on personalisation of the Web is representative of this.

Online interfaces to the Web require actions from users that improves the user experience. For instance, logging into a user account on a news syndication website will result in news that is tailored to topics preferred by the user. On logging in, a user is giving the provider valuable

information about their in-site behaviours. Providers can track activities such as the frequency of visits to the website, user dwell time (how long a user has a particular page open), and click-counts on hyperlinks for advertisements placed on the page. In many instances, it could be argued that there is a greater benefit for the provider than for the user.

It is not always a straightforward case of one party gaining more than another. Google joins many other Web resources such as social networking platforms in the emphasis of consent by default (Willis, 2014). In this, default settings for user accounts allow for tracking and collection of user information and must be turned off by the user. Many search engines prioritise personalisation as part of the user experience, but many users are not aware of what kind of information about them is being collected by those search engines (Andrejevic, 2012: 72; Falque-Pierrotin, 2014). The information that is being created as a result of these online behaviours is shaping the Web.

Social media is used for many activities and currently the idea of social media as a tool for social activism is popular (McCaughey & Ayers, 2013). Social media is also a facilitator of negative experiences. It can be a platform for facilitating acts of terrorism, sabotage and propaganda (Hables Gray & Gordo, 2014), surveillance (Fuchs, *et al.*, 2013), or reputation damage (Miles & Mangold, 2014; Veil, *et al.*, 2015).

The Web seems to be staging social interactions in a familiar way, but in reality activities being facilitated do not fit with accepted social norms. When sharing digital content online via social networking platforms, particular content is reaffirmed based on personal connections with other users. These reaffirmations are carrying out a far more complex activity than aligning personal opinion with the opinions being shared or liked. Pariser claims that instead of sharing news stories that they have particularly strong reactions to, users are more likely to engage with content that requires a simpler emotional response, as this more straightforwardly signifies personal identity than content that requires a complex emotional reaction (2011: 151). This occurs because sharing of content is so closely tied into the performance of identity online and users are therefore primarily concerned about reactions to decisions to share. This filtering could herald a flattening out of identities being presented online, as users move towards aligning with one another's sharing habits, increasing the homophily of the online experience.

5.7 Characteristics of social media from an individual level perspective

Social media is heralded as a suitable option for numerous Web-based community-focused activities as it has an emphasis on ease of use. This ease of use however has led to an oversimplification of many of the activities key to the performance of communal and individual identity online, forcing users into ever-decreasing categories and definitions. Within Twitter, individuals use hashtags to perform identity through high level manipulation of only 140 characters, in order to remix content to make subtle statements about the self. Papacharissi's work on storytelling of the self through the adaptation of trending hashtags (the terms that are most popular) on Twitter highlights the complexity of this activity (2012). This kind of narration is possible for a small proportion of users as it requires advanced understanding of the language in which the tweet is being made and relies on a high level of education in order to successfully negotiate the grammatical games being played between users. The technological structure of Twitter means that users must engage with the platform in this way in order to stand out from the rest of the network. On Twitter there is an advanced scaling of authority occurring through the production and aligning of oneself to online content. There is a definite bias for example in capital-enhancement for higher status users (Zillien & Hargittai, 2009: 274).

People currently invest considerable time in staging different aspects of themselves online. Everyday archives on the Web are produced predominately on social media as a result of confessional society activities (Beer, 2008). These archives are made up of mundane everyday experiences shared online, for example analysis of one week of Twitter content from the UK and US found that the photo content of over three million tweets was predominately made up of close-ups of users' own faces (selfies), closely followed by animals and food (Thelwall, *et al.*, 2015). Images of groups of people featured less heavily, suggesting that the purpose of images is related to expression of personal rather than group identity. There is evidence however that content sharing practices may be changing attitudes to more essential aspects of life, such as increasing visual exposure to dead bodies through photo-sharing (Cann, 2014). The presentation of the self is an essential component of the archive of the everyday (Beer & Burrows, 2013: 55-7). Everyday archives are therefore highly personal and highly communicative in nature as they are based in the presentation of identity. This cannot stand alone from other people, and it is essential that a dialogue for this construction of identity is supported (Wodak, *et al.*, 2009: 29-30). The production of everyday archives comes out of the presentation of narratives of the self and from

communication with others. Social media supports this, to an extent, but more provision for enabling identification of self through social experience is needed.

The buy-off necessary for increased personalisation of the Web is described by some as the “*filter bubble*” (Pariser, 2011). Increasing personalisation of content leads to decreasing content that can be experienced. In many instances, the ability to produce bias views onto content is seen as an essential positive feature. For example, the online marketplace, Amazon (2014), relies heavily on the personalisation of user recommendations to market products (Bruns, 2012a; Masum & Tovey, 2012), and search engines like Google or Yahoo use many factors to deliver a results list of links out to relevant Web content (Halavais, 2008).

Search engines are a useful example to explore the idea of the filter bubble. In the instance of a search engine, little is known about the exact algorithms used by companies such as Google. This is due to the proprietary nature of the tools. This may seem anathema to the idea of the Web as being “*for everybody*” as promised by its inventor, Berners-Lee (BBC, 2014), but is representative of the current situation. The little information available about search engine algorithms does point to the results list from an online search engine being affected by the terms used in the search bar and by many other elements (Brin & Page, 2012). For instance, the location of the device being used will impact on the results (Goldman, 2008). This is because the country and locality will affect assumptions that the search engine will make about the user’s needs and content such as a website in a different language will be discounted. There can also be political bias in location filtering (Jiang, 2014). Users’ past activities will affect the results. Finally, frequently visited websites will rank higher in results than sites that have never been visited before and preferences expressed through past behaviours on other sites will impact on content being presented in the future.

More recently, social connections and activities of those connections will also impact on results (Diaz, 2008). This is increasingly the case as organisations such as Google improve connections between social networking platforms like Google’s own social network, Google+ (2014), and search engines. The filter bubble makes use of increasingly sophisticated user tracking. For instance, with search engines, there has been much media coverage recently around the issues of “*Googling It*” and the resulting bias (Rushton, 2013; Chamorro-Premuzic, 2014). There have been claims for instance, that search engine bias could affect major Canadian election results (Shultz, 2015). In most instances, the user tracking that occurs for personalisation to take place is more

likely to benefit advertisers than search users (Feuz, *et al.*, 2011). All of these factors contribute to a partial view onto the Web.

The personalised experience online is leading to “*information determinism*” (Pariser, 2011: 135). As part of this deterministic Web, past behaviours effect future experience. Social media is a more nuanced version of this. The use of social media platforms’ filtering of content is based on reaffirmation of connections’ behaviours (*op cit.*).

The use of the Web for the formation of identity online and also the enactment of the self has changed over time. Earlier Web identities were more flexible to those of today’s social networking platforms (Marwick, 2014). Before the Web 2.0 meme was well established (see Appendix O for a more detailed description of the historical context of Web 2.0), early online profiles were maintained in social spaces such as Usenet and via IRC, both of which are purported to be early versions of social media (Kaplan & Haenlein, 2010). Users were encouraged to experiment and be playful with individual identity (Marwick, 2014: 91-92). Today, social media sites have a strong emphasis on strategic self-branding and self-marketing (Marwick, 2013: 192). This is enforced by the make-up of the platforms and tools themselves and is not necessarily driven by users’ needs. This is apparent in Facebook’s demand for the use of real world names for user account names (boyd, 2012; Facebook, 2015), and in systems such as Google Plus which links together several other Google tools by one identifiable profile. In this way, social media encourages elitism and enforces existing social stratum (Farquhar, 2013).

People associate social status with mechanisms used to signify approval on social media. In doing this, social media could be accused of condensing complex social actions into the counting of mouse clicks. One study found that young people treated ‘likes’ on content shared within Facebook as indicators of success in popularity (Madden, *et al.*, 2013: 8). These ‘likes’ were a deciding factor in how they presented themselves online. This is a far-cry from earlier less egocentric Web platforms and tools away from social media. In the multi-user virtual world, Second Life (2014) for example, users are encouraged to express creativity (Martinez, 2011: 70). Avatar aesthetics and actions in Second Life enable this kind of playfulness with identity. There has been very little work on the impact of Second Life participation on social capital, although findings point to social capital being an outcome of Second Life involvement (Huvila, *et al.*, 2010). This has an impact on the development of autonomy.

In contrast to the common assumptions held about social media which is seen as a way to facilitate real world behaviours through online calls-to-action, collective activities carried out in Second Life do not affect real world activities (*ibid.*: 313). Social media has a further-reaching impact on people's social and cultural significances and museums could engage with them in order to contribute to the creation of identity online but also in the real world away from the Web. Innovating with new approaches to expressing curatorial practice online could represent a potential way to reinvigorate the playful origins of the Web.

Social media are often presented as neutral platforms, and even as utilities (van Dijck, 2013a: 69-70). This implies that social media platforms and tools are ubiquitous and impartial, but it is apparent that they are in fact extremely biased and must be considered to facilitate partiality. Identifying ways to facilitate methodologies used in curatorial practice online may present a method to improve awareness of impartiality.

There is a recent trend within social media to make use of curatorial terminologies to express socio-technical activities in a new light. Social media tools and platforms make use of vocabularies that are based on the Web as a media. Terms used by the museums sector have been adopted by social media as a way to describe activities that cannot be understood within the restrictive terminologies of the Web as medium such as print. The trend for 'curation' within social media has predominately received negative responses from digital specialist representatives within the museums sector itself (Williams, 2009; Birchall, 2010; Hermitage Museum, 2011; Kelly, 2011; Cairns, 2012a; Dictionary.com, 2012; Dwyer, 2012; Buck, 2013; Coleman, 2013; Gamerman, 2014; The Daily Mash, 2015). This trend could however have a positive impact on attitudes to local museums, providing the sector is able to claim back the expression of curatorial practice on the Web.

Culturally created metaphors for the Web, like *chatrooms*, the *frontier*, *highways* and *homepages* (Arora, 2012: 9), provide ways to cope with how 'visits' to the Web can be afflicted by the same concerns as a real place. Our experience of the metaphor of the Web is that it is a place is that it is made up of affective spaces (*op cit.*). Online, activities associated with physical place can occur, such as tourism, and these potentially local facing actions are framed by the politics of access to information.

For museums, the metaphor of curation is a key mode for the expression of identity within the museum gallery. The adoption of curative terminologies within social media should offer an

exciting new direction for the sector. The model of curation for the expression of online activities within social media presents an opportunity for local museums to replace the confines of place-based metaphors for the Web. Curation online could enable experimentation with digital manifestations of curatorial practice that emphasise space as co-constituted by individuals, rather than being physically bounded. This kind of interaction with the Web is more akin to the early uses of the Web for experimentation with identity.

5.8 Potential new methodology for social media

The characterisation of social media in this chapter is built from the perspective of the Web as a social machine which has affordances that must be acknowledged through use-based examination. The analysis of the characteristics of social media above provides a basis on which to build a new set of approaches for the use of social media in local museums. Local museums could play a role in informing the development of the use of social media within society more generally. This is not possible if the use of social media by local museums continues along its current trajectory. Local museums could contribute to developing ways to engage with social media that are based on awareness of the affordances of participation when experienced through social media tools and platforms. The manifestations of these affordances have been identified in this chapter and in the report in Appendix O.

In considering approaches to understanding the Web that address technological determination, museums could approach the Web not as something that has agency and can alter the world, but as a socially constructed space that simultaneously is a technology (Cavanagh, 2007: 4-5). In doing this, local museums can move away from current popular approaches to social media use that attempt to mimic larger, nationally facing museums, to translate traditional curatorial practice onto the online and to broadcast information to passive, pre-defined audiences. Social media can be used to support a move away from Universalist presentations of heritage online. It can express the character of a local museum on the Web away from an emphasis on governance, and it can provide new ways to vocalise local heritage that is freed from the prominence of physical place. The following approaches summarise the potential of social media identified in the examination above.

5.8.1 Approach 1 - Supporting Locatedness

Local museums can use social media to support the negotiation of individual and community identity in a safe space online. One of the key challenges for local museums to overcome is the bias inherent in all social media use. This chapter has identified that social media has been entangled in the ideology of intrapersonal connections and societal advancement since its beginnings. Local museums could continue to identify ways to practically engage with individuals through common-place tools and platforms such as Facebook, Twitter, YouTube, Instagram, and Pinterest. They could also simultaneously develop methods for responding to the partiality present in most social media in a way that positively highlights issues of bias for users in order to improve experiences with the Web.

Despite the inherent bias of social media, it can be part of a social machine. In turn, the social machine made up of people and technology carrying out tasks, can present an opportunity for organisations such as local museums to improve people's experiences of local heritage more generally. This is because social media can play an important part in the construction of knowledge. Social media can be a way to enhance the relevance of local heritage in daily life by enabling people to engage more creatively with museums' collections through Web-derived interactions. In this way, local museums can facilitate the social machine through social media. This can be achieved by shifting the current focus of local museums from using the Web to share collections *as* content, to instead enabling online activities such as narrative building as a way to create new content on the Web. This content can come about through experiences with local museums within social media.

5.8.2 Approach 2 - Supporting Openness

Social media can improve the expression of curatorial practice by local museums on the Web. In addition to this, metaphors of curation could improve current modes of coping with the incursion of the Web into daily life. In this new definition local museums could support people to question aspects of the Web that are more problematic, such as digital inequity, in order to better understand what it can mean for society. Notions of space on the Web could be culturally produced and be co-constituted through involvement of multiple individuals, organisations, and communities. Local museums' collections as they manifest online within social media seem to be an ideal testing ground for this co-creation to occur.

5.8.3 Approach 3 - Supporting Connectedness

Social media has the capacity to support the work of local museums to fulfil the major challenges that they face in today's world, by realigning online activities with community concerns. Local museums are struggling to enable genuine community-driven experiences with heritage. These institutions need to find a way in contemporary society to provide a place where identity can be negotiated, to challenge collective memory and facilitate social action, overcome barriers to gaining cultural capital, and to support constituency focused sharing of community heritage. Social media is by no means a panacea for achieving the ideal local museum, as the characteristics discussed in previous sections demonstrate. This thesis demonstrates however that the real input social media can make to the work of local museums is a practical contribution to augmentation and delivery of services and realignment of aims and objectives to community and individual concerns. Local museums are struggling in an age of austerity and increased pressure to evidence impact as discussed in Chapter 3 and 4. The following chapter will outline how social media can provide the means for local museums to express impact on everyday lives of people, but also on a community and societal scale.

5.8.4 Approach 4 - Supporting Collaboration

Local museums can use social media to enable multi-layered narratives to be shared online. When we take the disruption of the Web into account, more traditional local museum approaches to supporting the formation of community and individual identity are no longer adequate. The effect of classifying and interpreting objects thematically and exhibiting development through time is reducing as the Web expands. Social media impacts on the social work of museums. This is because social media fundamentally changes how we think about the possibilities of community and the self within the context of heritage, and provides new ways of framing heritage accordingly. At the centre of this is a repositioning of the idea of interpretation away from institutional goals and towards community needs, to incorporate collaboratively constructed overlapping narratives for heritage. Not only does social media offer a significant support for the achievement of self-recognised organisational goals, it can also support the development of new potential objectives based on responsiveness to the statement of significance of local museums as outlined in Chapter 3 and 4. Social media and local museums can work together in unanticipated ways, and the following chapters will identify these future directions.

5.9 Application of the LOCCol approaches

These approaches are not intended as stand-alone solutions to making better use of social media. Instead, the Located-Open-Connected-Collaborative (LOCCol) approaches serve as thematic use-based perspectives onto social media for local museums. The following chapters will examine social media as a resource through which local museums can make use of the LOCCol approaches.

Technology can be used to support local museums in leveraging the opportunity of local heritage. Local museums can provide a safe place to frame approaches to heritage experience, by means of a co-designed statement for intention of each planned activity. This would incorporate the concerns of the communities participating in the design of actions. In this model, heritage is shaped into what Waterton and Watson call: “...a form of cultural practice” (2015: 6). It is performed through malleable and collaborative expressions of the self (*op cit.*). Approaches to heritage experience that is co-designed at a community level would need to incorporate multiple, overlapping needs, and to combine these with the political and economic drivers for museums in the UK, as defined by the ACE.

Co-designed approaches of heritage experience could be implemented to acknowledge current major aims of the local museum. This would enable museums to better serve multi-located constituents through realistic goals that were sympathetic to the characteristics of the communities for which the heritage of a museums’ collections were significant. This could also impact directly on improving the use of social media by local museums, as communities could have overlapping, multiple, and even conflicting needs.

5.10 Conclusion - Identifying heritage as an opportunity to repurpose social media

Social media has essential underlying affordances as outlined in this chapter. These manifest through current trends in social media use, and can be identified in the current use of social media at HCT, as discussed in Chapter 4. Much of social media use within the museums sector has developed without a nuanced understanding of the socio-cultural context of the development of the Web. This has led to social media adoption failing to acknowledge the impact of these affordances on sociality as it is expressed through social media.

The following chapters will explore how effective use of social media occurs when organisations move beyond the obvious functions of social media, as they are advertised by the social media tools themselves. Innovative adoption of social media approaches technology in creative ways in order to achieve organisational aims.

Chapter 6 will discuss uses of social media from analogous sectors that illustrate the potential of social media when used in this manner. The case studies in Chapter 6 are relevant to improving understanding of the potential of social media because they are occasions in which technology has been used creatively to support socially driven interactions with heritage.

Creative use of social media is less apparent in the heritage sector. This is particularly the case with organisations' use of social media to communicate with individuals. This is not because heritage organisations are ill-suited to social media, but is instead due to the barriers discussed in Chapter 3, 4 and 5 that are related to resource availability and perceptions of requirements for technology uptake. There are some community-led instances however of innovation in social media use for heritage experience, and the relevance of these for local museums is discussed in the following chapter.

Local museums have been using social media in a way that has developed from current mischaracterisations of both local museums and of social media. These have been examined in detail in the previous chapters. Recent developments in the approaches to heritage provide a way to reorient local museums towards the social. Heritage can act as a central focus for the re-characterisation of local museums. This thesis builds a new methodology for embedding social media more sustainably into the activities of local museums. As part of this process, the following chapters will examine the potential for the new LOCCol approaches to overcome the technological determinism of current methodologies to social media adoption. Through three case studies, the new ways in which social media can be used by organisations to engage with people through heritage are examined.

Local museums have the potential to be essential organisations within UK society, fulfilling a unique function as spaces online for the experience of heritage that has a local focus. The new approaches to social media can be used to overcome the crisis of local museums as outlined in Chapter 3, compounded by the lack of awareness by local museums of the affordances of social media as identified in Chapter 4 and 5. This thesis is building a case for a social media for local museums. In the Museums Use Social Media (MUSM) framework described in the following

chapters, social media provides technological support for the social focus of local museums. This is achieved through emphasis on facilitating experiences of local heritage on the Web over national agendas for heritage. Local museums can shape future social media interactions by contributing to the Web in a more informed manner. In order to achieve this, the methodology for embedding social media will incorporate improved awareness of how to subsidise the interchange between specialisation and connection that occurs within social media, as identified by Cavanagh (2007: 3).

Chapter 6: Leveraging the opportunity of heritage

6.1 Introduction

Local museums, particularly those affiliated with local authorities, have requirements and objectives quite distinct from those pursued in other areas of the museums sector. This in turn means that creative examples of social media use from elsewhere in the museums sector may not straight forwardly map onto an organisation working at the local level. However, examples of creative practice from elsewhere in the sector can provide a useful basis upon which to develop new, diverse and distinctively local social media strategies. By combining an understanding of the unique characteristics of the local museum with awareness of the fundamental affordances of social media (as outlined in Chapter 3, 4 and 5), it becomes possible to envisage and then move toward the realisation of a social media for local museums.

This chapter will present exemplary social media practice as implemented by three different institutions from the cultural heritage sector. The case studies described here were selected in order to examine the creative use of technology to support social practice. The distinctive character of local museums means that pioneering strategies utilised by the case study institutions would be unlikely to succeed if they were straightforwardly emulated within the local museum context. Rather, it is the purpose of this chapter to examine the interplay between institutional objectives and the affordances of social media. Once this has been achieved these lessons will be applied to the development of the Museums Use Social Media (MUSM) framework in Chapter 7 and 8.

6.2 York Museums Trust

York Museums Trust (YMT) has a specialised digital team. This resource has led to the development of several impressive digital projects. YMT has a commitment to opening up collections through permitting digital content reuse under CC license (2013) whenever practicable and to encouraging creative use of content (YMT, 2012: 15). YMT has developed their online collections database to include openly licensed content, available on their website (2014). YMT is a nationally significant instance of a heritage organisation developing a strategic approach to encouraging the reuse of their digital content. This began with funding in 2013 from Wikimedia

UK for a Wikipedian in Residence. The post was initially six months, and was extended through 2014. The residency intended to encourage use of images from the collection (YMT, 2013), and resulted in 400 images being added to Wikimedia Commons (2013). Some of these were used by Wikipedia editors to illustrate Wikipedia articles (Hadley, 2014: 2). Several events were organised to facilitate engagement with new content. The Wikipedian in Residence, Pat Hadley, was interviewed in June 2014 to discuss how the residency had progressed.

Also notable at YMT is the organisation's work with Google Art Project (GAP) (2013). GAP launched in 2011 and uses Google's Street View (2014) to enable 'virtual' visits to art collections. Users can navigate around virtual spaces and view individual works of art at high resolution it incorporates 'great artworks' from national institutions' collections and has expanded to include alternative art such as street art from Brazil (Sood, 2012). YMT represents a new kind of partnership for GAP; smaller museums and also historical and archaeological collections. YMT recently worked with GAP to present an online exhibition of part of the numismatics collection for Yorkshire Museum (Yorkshire Hoards, 2014). Data from the online collections is presented in a traditional format, with labels and links back to the YMT collections database, but the exhibition has been augmented with a collection of YouTube (2013) videos. Recorded in one afternoon, these talking heads of the Curator of Numismatics, Andy Woods, provide a new way into objects in the collections. The YMT's experience of GAP illustrates the potential of engaging with existing resources to provide online experiences of objects. Woods was interviewed about the GAP experience and the impact that opening up the collections were having on curatorial practice at YMT in June 2014.

6.2.1 Findings – Translating curatorial practice onto the social Web

Interviews with staff from YMT seem to indicate that the specialised digital team has driven the innovation in technology use at YMT. Specifically represented by the residency with Wikipedia and the GAP work. The commitment to the open agenda, evident in the YMT in the Forward Plan for 2012, has driven these two projects. This shows how strategic support for technology can change organisational Web use. As Hadley commented:

"So the idea [behind the YMT 2012 Forward Plan] was that things will be as open is possible within the law ... also that with the edge cases we make a more bold open choice rather than the resistant safe choice." (Hadley, P., 25th June 2014, *pers comms*.)

Hadley felt that the *“mission driven element”* (Hadley, P., 25th June 2014, *pers comms.*) was the key driver in the changes that have occurred in the organisation since 2013.

As part of the commitment to openness, a photographic strategy was put in place at YMT. The team have been re-photographing artefacts for use in the online collections database (YMT, 2014). To facilitate this, a photographic studio has been set up at the museum stores in the Yorkshire Museum (Woods, A. 24th June 2014, *pers comms.*). This small change has had a substantial knock-on effect on digital practice for some curators. On reflecting on the skills development within the YMT curators through the Wikipedian in Residence scheme, Hadley commented:

“It’s almost as if it’s not just a demonstration that it will have a positive effect, it’s almost a demonstration that there are negative impacts to not doing it.” (Hadley, P., 25th June 2014, *pers comms.*)

The importance of leveraging these moments of organisational change echoes research into organisational use of technology (Rahimifard & Weston, 2007: 324). This has been an unintentional outcome of the studio. GAP, the Wikipedian residency, and the photographic studio are significant stories for YMT to use to promote further institutional change.

Much of the uptake of YMT’s digital images on Wikipedia came out of events that were facilitated by the Wikipedian in Residence. These included editathons during which volunteers, museums staff and Wikipedia representatives worked to write articles based on YMT’s collections. I took part in an editathon and authored an article that was featured on the front page of Wikipedia, resulting in close to 3,500 views of the new article (Hadley, 2014: 6). A reflection of this is included in Appendix V (second reflexive researcher report).

Attitudes in local government to museums’ content as a source of revenue do not necessarily contradict efforts to release control over digital content. Sharing content online openly is proven to result in increased brand awareness (Hutter, *et al.*, 2013). If managed well, it can result in trackbacks to websites (Chua, 2011). Even if ‘clicks’ cannot be easily counted to evidence impact of content sharing, increasingly innovative methods for reporting saturation of brand are being developed (DiStaso, *et al.*, 2011).

GAP is a seemingly successful model of a museum online that has come from outside the sector (Spurdle & Birchall, 2013). This project however emphasises the aesthetic experience of the

object with little emphasis on the originating institution. Very little descriptive contextual information is provided. With GAP there is a loss of control by museums over curation of artworks (*op cit.*). Sanderhoff explains the reluctance of the Danish Statens Museum for Kunst (SMK) to work with Google Cultural Institute, claiming that it insisted on Public-Private Partnership and therefore represented a “*walled garden*” (2014: 69-70). This kind of partnership would affect access to collections for the public as it would reduce reuse of digital content. YMT has avoided this issue by having an online collections database with CC licensed content *before* creating GAP galleries.

Open licensing could therefore be an initial consideration, taking precedence over presentation of content online. There are several models for museums wishing to license online content (Bertacchini & Morando, 2013: 6). For local museums there is potential in indirect revenue streams from user-generated content and open licensing. This could be facilitated by a museums commons, an idea that has been gaining popularity in the museums sector (Edson & Cherry, 2010). A commons for museums would be modelled on the model of a knowledge commons put forward by Hess and Oström (2006): A shared resource available to people with similar goals (Bertacchini, *et al.*, 2012: 4; Hess, 2012: 14). Local museums are suited to the idea of a commons (Hess & Oström, 2006). They specialise in creating knowledge that acknowledges social context and is grounded in engagements with the organisation (Hooper-Greenhill, *et al.*, 2009: 180).

6.2.2 Lessons learned - Local museums can be open

The evaluation of YMT contributes to development of the LOCCol approach of openness in using social media in several ways. Issues of ownership of digital content create barriers for many local museums that would use the Web to share content (Mor, 2010), but are unable to navigate complicated licensing concerns. In order to share an image, they often must create new photographs or negotiate a new contract for existing images. Although archaeological archives generally are signed over to a museum when deposited, objects remain the property of the landowner where they were excavated. Legacy archives may contain photographs, plans, drawings, and written documentation that was created by multiple individuals, copyright for which may be unclear (*ibid.*). There is the additional complication that ownership of objects in an archaeology collection may be multi-constituted. This can lead to complexity where protection of ownership and control over access to objects is necessary. This is illustrated in Brown and Nicholas’ work on Canadian First Nations and Māori object ownership and property rights (2012).

Research at YMT highlighted skills development as being key to encouraging the creative use of technology in the organisation. However, training often requires investment from ICT professionals and from the institution. The need for digital skills in order to improve uptake of technology within a museum is further complicated by the perception of curatorial staff of the necessity for developing these skills as part of curatorial practice. As Woods illustrates:

“If I had to do it myself, I would have struggled. I would think. There were at least three other people involved... [description of the process for preparing the GAP content]... Now, all of those are skills that are beyond me probably. I think they’re not something that I could have just jumped into. You know, with some training, with a lot of thought, I might have been able to do it. But I was fortunate in that I didn’t have to. And, it made it so much easier for me, because it meant that I could just concentrate on the content. And, I actually – I shot – we between us, shot the photographs as well. I set the images up and because I didn’t know how to use the camera at that point. So I could just focus on the content. It was really sort of liberating in that regard, in that I didn’t have to think about style and the technicalities of the stuff under the hood. I think if I had to do all of that as well, it wouldn’t have happened, that’s the long and the short of it, because – ... [of the] The time commitment, and the – I think if I had to go to my boss and say, ‘I need to learn to do X, Y and Z’, I think he’d go: ‘what’s that got to do with being a curator?’.” (Woods, A. 24th June 2014, pers comms.)

There are several points within Woods’ reflection on skills requirements during GAP preparation. Woods seems to see a positive aspect to having a digital team that prepares content on behalf of the curator, freeing him up to concentrate on writing editorial and selecting images. But throughout the interview, Woods commented on the positive impact that learning digital photography was having on his professional practice. Skills gained as part of the openness agenda at YMT mean that he could now participate in the creation of digital content for future projects like GAP.

My participation in the editathon event (see Appendix V) highlighted technical barriers to use, but also a need to ensure that museum stakeholders, such as volunteers, are able to navigate socially constructed obstacles associated with platforms such as Wikipedia which is known to have imbalances (Nakamura, *et al.*, 2013). Wikimedia acknowledges the challenge of supporting editors in Wikipedia (Morgan, *et al.*, 2013; Mako Hill & Shaw, 2014). The Wikipedian in Residence reported that curatorial staff at YMT were limited in the time they could commit to learning to

use Wikipedia (Hadley, P., 25th June 2014, *pers comms.*; Hadley, 2014: 6). This pressure on attention is symptomatic local museums' adoption of social media generally.

The Open Knowledge Foundation's (OKF) OpenGLAM community supports the development of open content within the museums sector. OKF is currently working to develop a new copyright framework in consultation with the European Commission's Digital Single Market strategy (European Commission, 2015). OpenGLAM facilitates reuse of open content by indexing collections, tools and projects on its website (2014). However, content does not need to be fully open for reuse to occur. Many instances of reuse on the Web result from clever remixing of content. Use of digital content from museums can involve engaging with whole collections, such as Bellander's use (2015) of BBC's *Your Paintings* (2014) search results to plot changes in colour in paintings over time. The BBC does not provide an Application Programming Interface (API) to easily access the database underpinning the *Your Paintings* website and so Bellander used a script to scrape basic information from search results. Open content can also provide personalised experiences of museum collections, such as Burke and MacDonald's *Trains Near Me* app (2011), which uses the National Railway Museum's list of locomotive and rolling stock from the museum's website to provide users with details of nearby trains (2013).

The *Trains Near Me* app was developed as part of the Culture Hack North 2011 event. This kind of event seems to be driving (Gurin, 2014) development of proof-of-concept projects for data reuse in the cultural sector. Similarly, the editathon at YMT served to test ways in which people could get involved in improving the reuse of open collections. The *muse-app* (noStrings, 2012) was created as part of a competition run by the Open Cultuur Data network (2013). It uses data from Amsterdam Museum and the Rijksmuseum, to create an application in which users can take cut-out details from artworks and reuse them to create new pieces. The app encourages creative reuse of data, and makes use of digital content licensed under CC for reuse. These smaller projects evidence the potential for open data. *Trains Near Me* has a clear use, fulfilling a need in the real world, and *muse-app* provides a playful view onto difficult to interpret artefacts.

Woods himself admitted that the connection between digital objects in Trust managed Web resources, such as the collections database, and GAP, had not been evidenced (Woods, A. 24th June 2014, *pers comms.*). This may be because GAP has an emphasis on the object, rather than the organisation or the audience, and so there are no easy mechanisms to link objects in a GAP exhibition to contextual information. With GAP, unlike the apps mentioned above, it is harder to evidence the impact on the collections themselves. This is highlighted by Woods:

*“So you can click on any object or any picture of a hoard in there, and it will take you to a page created by Google, which is a description of that object in some depth. And at the bottom of that description of the object is the link to that page...But, it’s not something where you go, click something and it comes straight back. There’s another intermediary stage. It’s at least two clicks before you get to us. Which I imagine adds a fairly significant drop off. It may be that actually rather than it being click through from Google Cultural Institute, as that imagery is freely available licensed on the Web, you know, Google Search for Constantine, or so-and-so hoard, will you know, will bring up that imagery and our links. To make those sort of connections.” (Woods, A. 24th June 2014, *pers comms.*).*

GAP may be visually impressive, but it is built on the model of a catalogue, presenting objects as images with descriptions. As Woods’ explanation highlights, it also divorces the artefacts from their collections. Although GAP is interactive, little interactivity between the viewer and the artefact is possible. There is also significant ‘black-boxing’ of the process, which results in low awareness among participants of the relationship between the collections and the online GAP exhibition. The navigation of GAP mirrors a real-world experience of a museum or gallery. Woods describes the YMT GAP coins as *“curated”* (Woods, A. 24th June 2014, *pers comms.*). The structure of the menu gives user created collections similar weighting to those created by originating organisations. Emphasising the object is usual in most instances of museums’ interactions with audiences online (Cameron, 2007: 50), and GAP is a clear example of this approach. Local museums can offer something different to the current use of GAP by larger museums, by providing a social experience based on contextualising objects. Woods described GAP as *“low-hanging fruit”* (Woods, A. 24th June 2014, *pers comms.*), and this perception of achievability seems to be key to digital projects taking place within museums.

Commentaries on GAP have noted that the super-high resolution artworks has resulted in a hyper-real experience of pieces that were never meant to be studied at such close range (Davis, 2011). By seeing every speck of paint within a painting, critics complain, we are reducing our enjoyment of that painting (Elkins, 2013). This critique is less significant for museum objects where the ability to have a microscopic view may be beneficial, and is hard to achieve using in-house websites. In partnering, local museums can gain from the resources of the Google Cultural Institute and Google Inc. more broadly. This includes the provision of Search Engine Optimisation (SEO) for the exhibitions in GAP that exceeds the abilities of most staff working in local museums.

Experiences with Wikipedia have been based far more on iteratively building outcomes, tied into embracing the serendipitous nature of releasing content onto the Internet through open licensing. Woods described the experience in this way:

“But what was amazing for me, is that, we put it out there with very, very little curation. Told people what it was, when it was from, where it was from, saying, here, do something with that. And it turned into a fantastic article about the Middleham Hoard, which is well-researched, well-rounded, excellent detail about it. Which we didn’t have to write... And it’s fantastic. But it also, sort, found different languages. In French. And there’s images being used in other parts of the Web... [gives some examples of Wikipedia articles]... Things that – you know, I would never have thought of putting it there, I would never suggest that we need a page about that in French. But that is the way that – you know – it goes off on this sort of weird little tangent, and those do link back to us in quite a direct way.” (Woods, A. 24th June 2014, pers comms.)

The process of editing Wikipedia (2014a) carries more impact than the articles which result (Rosenzweig, 2006). This is central to understanding how local museums might shape the Web while benefiting the communities that they serve. There are already several image commons collections that local museums could use today, including Wikimedia Commons (2013) and Europeana (2013). If commons collections are part of a process of learning, they are also part of a process of creating meaning for objects of significance. Sharing content to these platforms is straightforward if a museum has appropriately licensed content. Adding images to a commons on the Web not only shares images with other users, but also gives objects a certain degree of significance. The act of licensing images for reuse and adding them to repositories for re-use, provides images with a certain authority. They become representative of a particular concept, place, object, event or person as part of the process of signification. When asked to compare experiences of Wikipedia and GAP, Woods reflected:

“You release something into the wild, and just see what happens. Far less work from the outset. But some work further down the line, unlike Google Art Project which you just do, and forget about... – I mean, from my perspective, from a curatorial perspective, I did very little. I mean we took the photographs which we need anyway, and the descriptions already existed in our content management system... Pat prodded the community. And said look this stuff is here, come on and do something with it. And then, that was it! And, it keeps coming back up and you know, every now and then someone will write to me about

it, and go, you know, 'tell me a bit more'. And this is two years now nearly.” (Woods, A. 24th June 2014, pers comms.)

The benefit of making use of a community such as Wikipedia is that there is a link back to the institution, as Woods explained of the YMT coin images:

“You can click on us and come straight through to our website. Via Wikipedia. Which is great. And it made it onto the front page for a while, which meant that – I don’t know how many people clicked, but you know, 50,000 people had the opportunity to see those images, and that’s something that’s really – its sat in stores for most of the time, and it’s part of our collection which at the moment doesn’t have a home.” (Woods, A. 24th June 2014, pers comms.)

Google Cultural Institute does not own the rights to images within GAP but the association between the artwork and Google Inc. is undeniable. Google branding is always in view, whereas there is branding for the originating gallery or museum is less apparent and the hyperlink back to that gallery or museum is hidden within a dialogue box not open by default. Google Inc. exists within the tradition of the idea of the Web as an assemblage made up of digital versions of ‘things’. This stems from Well’s idea of the World Brain (Rayward, 1999). Wells believed that this world encyclopaedia would unite people through common interest (Wells, 1937). However, Google Inc.’s aims are not necessarily aligned to common interest despite rhetoric (van Dijck, 2010).

A particular impact of the Wikipedian in Residence scheme was that it highlighted to YMT the current climate in the organisation for attitudes to participation and collaboration in interpretation of collections. The Wikipedian in Residence talked about a Wikipedia editor who had produced a series of articles around William Etty, a nineteenth century painter from York. The editor created several high quality articles, as Hadley explained:

“Because if somebody in the local press was writing articles about Etty of the quality that this guy has been writing them, they would have been: ‘Oh god, that’s amazing!’ Whereas, they were all very positive about this, they still felt disconnected from it. They weren’t at the point where they could say: ‘Oh actually, I want to help this guy’, ‘I want to participate in the discussions.’ They don’t yet see it as a kind of engagement with their collection in the way that having an academic walk through the door and say: ‘I want to talk to you

about your axes'. [They would say:] 'Here's the collection.'" (Hadley, P., 25th June 2014, *pers comms*.)

It seems that the value of the editors' contribution to the interpretation of the collections is not fully appreciated within YMT. Hadley made a point about this issue:

"It's very difficult for them to, they're used to projects where you either engage a community in a two-way dialogue, or you engage with your audience in a broadcast. But Wikipedia is both, because you get the editors in a two-way dialogue and you get the readers in a broadcast, and they can't think about both at the same time." (Hadley, P., 25th June 2014, *pers comms*.)

This approach to the Web within the museums sector is common, and is discussed in Chapter 3, 4 and 5. This case study shows that local museums can adopt the cultural commons model by engaging with established media commons such as Wikimedia Commons, but that they could also mediate content through APIs which enable accessing of other services. Openness can be improved by contextualising content and supporting reuse of content by existing communities through skills development.

6.3 United States Holocaust Memorial Museum

The United States Holocaust Memorial Museum (USHMM) has engaged with social media in a variety of ways, and has been particularly successful using the Web to provide a space for communities with common interests to gain skills. The USHMM has been running the *Remember Me?* project website (2013) since early 2011. USHMM uses the website to share over 1,000 photographs taken by relief workers of children displaced by the persecution of Jewish people by Nazis. The USHMM has been identifying children through asking users to contribute information to the website. Within the first year of the project, *Remember Me?* celebrated 350 identifications (USHMM, 2012a). The *Children of the Lodz Ghetto* website works with users to facilitate research into digitised documents in order to identify individuals within a group of over 13,000 children who lived in the Lodz Ghetto in Poland during World War II. The project follows-on from the success of the social component of the *Remember Me?* project. The main focus is an album presented to the chairman of the Lodz Ghetto's Jewish Council in 1941, in which all of the children are represented by handwritten messages. The USHMM was visited in 2013, and team members:

Historian, Jude Richter, Social Media Strategist, Elissa Frankle, and Chief of Data Management, Randolph Davis were interviewed.

6.3.1 Findings – Incorporating community-led aims into online activities

The USHMM uses a topical, rather than audience focused approach to the design and delivery of projects such as *Remember Me?*. This does not result in popularisation of interpretation as highlighted in Chapter 3, but instead has meant that the *Remember Me?* project is aligned to societal concerns.

The *Remember Me?* project has successfully identified close to a third of the children through encouraging sharing of content (O'Brien, 2011; USHMM, 2011). This has been achieved through the website and social networking platforms. The USHMM *Remember Me?* website has very basic functionality. A Web form is revealed when you press the 'I remember this child button', and this collects basic contact information. There is also a Facebook comments plugin allowing users to leave comments relating to the photographs. The website does not have content sharing built in but there has been a substantial uptake of calls to share by people in over 150 countries (USHMM, 2012a, 2013). Richter's work on the *Remember Me?* project has been very successful in identifying lost individuals, and Richter's role recently includes Social Media Community Manager from the success in using the Web to contact people who are not visitors to the museum. Richter uses social media to communicate with interested parties, and relies on Facebook to make many of the initial contacts that lead to identifications. Richter described how the use of Facebook provided a connection with ever decreasing survivor communities through sharing and re-sharing (Richter, J. 2nd April 2013, *pers comms.*). The networks facilitated by social media have driven much of this communication. The USHMM has not controlled this diffusion of information.

USHMM staff also talked about a project built on *Remember Me?*. The *Children of the Lodz Ghetto* project (2012c) is a crowdsourcing platform that works to support the development of research skills. USHMM Social Media Strategist, Frankle, commented that the activities carried out by the USHMM team have an emphasis on "*skilling up*" (Frankle, E. 2nd April 2013, *pers comms.*) this includes giving access to information and to the USHMM team. They see themselves as supporting this skills development personally, and the focus is on what participants can ask of the museum, rather than what the museum offers to the individuals (Frankle, E. 2nd April 2013, *pers comms.*). This requires considerable commitment, as Frankle reflected:

"I was on my computer at 2.30am talking to a student who was also online. It's good for them to realise that there is a real person in there." (Frankle, E. 2nd April 2013, *pers comms.*)

Frankle was particularly interested in how carrying out tasks relating to history can highlight the "murkiness" of historical research (Frankle, E. 2nd April 2013, *pers comms.*). She commented that the use of technology to enable crowdsourcing of identification through the *Children of the Lodz Ghetto* project had shown people that although a single story is experienced in an exhibition, the actual collections do not have definite answers. Experiences of staff participating in the *Children of the Lodz Ghetto* have been that research skills are being gained. In order to ensure accuracy, each piece of research is checked by the USHMM team and a comment is left on the board to provide feedback to the user. Responses to feedback confirm that individuals are gaining skills (Frankle, E. 2nd April 2013, *pers comms.*), this in turn suggests that contributing to the interpretation of the museum's collections builds individual social capital (Ellison, *et al.*, 2014).

With *Remember Me?* The USHMM has identified the need for an online social resource that changes over time depending on individual requirements. People join and leave as they need to, and although there is no evidence of continuing interactions after identification of a missing person has been achieved, there is an emphasis on flexible interaction between individuals and the organisation. Stories of success are tied into global concerns but are driven by individual needs and are conducted on a very small scale. The USHMM team communicates directly with social media users resulting in conversations, interviews and content submission. This then feeds back into the collections (Richter, J. 2nd April 2013, *pers comms.*).

6.3.2 Lessons learned - Local museums can be connected

The evaluation of UHSMM improves the connected approach within the LOCCol approaches as it shows that social media tools represent a significant resource for museums as a way to understand the needs of communities. For example, differential language analysis of Facebook posts has identified trends in word use as people age (Kern, *et al.*, 2013: 182-183). Studies such as this illustrate the potential of social media for audience research, and highlight the possibility of tools for sentiment analysis of social media data (Maynard, *et al.*, 2012). Whilst collection and analysis of this kind of data is not currently achievable for local museums, they could consider the possible contribution their activities to these kinds of big datasets. On a smaller scale, analysis of user-generated content such as comments on photographs (as generated by USHMM projects)

can provide insights into audience needs and reactions to organisational activities (Bonsón, *et al.*, 2012). The use of user-generated content can be expedited by reapplying more traditional methods such as critical content analysis (Riff, *et al.*, 2005; Jensen, 2010; Rice & Atkin, 2012; Altheide & Schneider, 2013; Berger, 2013; Silverman, 2013), or by using methods from visitor studies such as sentiment analysis (Paltoglou & Thelwall, 2012), or narrative analysis (Chou, *et al.*, 2011).

Many participants in the *Remember Me?* project were contacted through friends or relatives, using social media as conduits for communication and did not use the tools themselves. Richter commented that a snowball effect often occurred (Richter, J. 2nd April 2013, *pers comms.*). Once an individual was identified via the website or the Facebook page, this generally led to communication with representatives of a larger community (Richter, J. 2nd April 2013, *pers comms.*). The USHMM does not focus on the number of 'Likes' achieved on their Facebook page. Instead, success is measured through relationships built between the museum and the individuals. In this way, social media is merely a method with which to improve people's own lives.

Museums have successfully made use of the social media trend of segregating people into value-derived communities by engaging with niche audiences online. However, there is an opportunity for museums to encourage content discovery via a topical model; seeking a more community-based design of social media use. This is evidenced in the USHMM's approach.

The potential for fostering topical communities has exciting potential for local museums. Everyday objects can provide inspiration for people. For example, on Twitter, using the hashtag *#opercula* (2014), people share images of coal plates and drain covers. Mapping tools and image sharing platforms allow for collection of disconnected objects. For instance, *Local Post Box Finder* (2013), developed by Pixelfoo uses Royal Mail data to enable post-box searches using Google Maps (2013). This could be augmented with images of post boxes elected by individuals as significant, such as historically significant examples or gold post boxes, painted by Royal Mail to celebrate gold medal wins at the London 2012 Olympics and Paralympics 2012. Creating engaging experiences with everyday objects is a strength particular to local museums (Jones, 2010).

Social media tools have been used to spread the word about USHMM projects, but little emphasis is placed on the platform itself. Instead significance is afforded to the people who are using the platforms, their real world connections. The most significant lesson learned by the staff at

USHMM was that even small online changes often required substantial time. The USHMM Historian commented that specialist staff took part in updating the website, including an academic historian, a representative of Amnesty International, and a member of a Jewish community in Washington DC. The USHMM team recognised that different perspectives would result in different use of tools and therefore increase the likelihood of re-identification occurring. USHMM Chief of Data Management, Davis, commented that there was much enthusiasm for the kinds of projects that were presented at events like the Museums and the Web conference (2014), but that the technical skills were lacking (Davis, R. 2nd April 2013, *pers comms.*). This echoes findings from Chapter 3 about the need to develop technical skills within the sector (Hooper-Greenhill, *et al.*, 2007: 39; Pett, 2012: 102), but also reiterates the importance of providing museums professionals with mechanisms to represent curatorial skill online.

In the activities of the USHMM, networks of people are the most important component of social media. Hierarchical control is still maintained by the USHMM for the process of identification of survivors. This reflects Bijker *et al.*'s affirmation that technology as part of a system is "*bounded by the limits of control*" (2012: 49). However, the use of the Web by USHMM has led to unanticipated impacts and some decentralisation has occurred as a direct result of using social media. The activities of the USHMM are overcoming the approach of *projecting louder*, identified in Chapter 3 and 4.

As an example, the USHMM Historian was contacted by a person in Pakistan who had seen a face of a missing person on the *Remember Me?* website. This had reminded them of their son. They left a comment on the website via Facebook to tell their story (Richter, J. 2nd April 2013, *pers comms.*). After reading about the project they contacted the USHMM team and asked for information about locating relatives using Web-based databases. Then they had then used this information to teach people in their own village to carry out genealogical research. This story shows that the *Remember Me?* project has impacted on a community's experience of their own heritage. This impact story shows that the historical research skills which have been central in conducting the *Remember Me?* project have been of value to unanticipated communities of interest, beyond the initial focus of the Jewish community. This example emphasises the need for museums staff to recognise the value of sharing information about decision making in curatorial practices with communities. Transparency around curation practice occurs has the potential to enable communities to identify the parts of the process that are pertinent to their own needs.

There is a tendency (offline and online) for local museums to engage with specific groups of people, or audiences and to use social media as a way of engaging with new demographics (Lang, *et al.*, 2006). The use of social media by local museums is hampered by this audience-centred approach because it does not consider the audience as active participants who are able to shape the form of the interaction in which they are expected to participate (Simon, 2010). Nor does it consider the relationship of an individual with their social networks. These can often be communities with conflicting agendas. There is a need to see communities as something other than passive audiences, this is highlighted by Crooke's work on museums and community relations in Northern Ireland (2007a: 95-108).

When asked about the Webby Award that the *Remember Me?* project won in 2012 (USHMM, 2012b), Richter commented that the award was received by a holocaust survivor who had been identified through the project (Richter, J. 2nd April 2013, *pers comms.*). This highlights that social construction of technology is at the heart of *Remember Me?*. Richter said of the standing ovation that the survivor received at the ceremony:

"...it's because it's not techie, and all those guys are. It's about the Holocaust." (ibid.)

The connectedness of the USHMM has enabled the collections to have a profound impact on people's lives. This model of one-to-one engagement through social media respects the affordances of the technology and transforms externalised 'publics' into active participants.

The resource intensive process of enabling dialogue with individuals through technology has led to the work of the USHMM moving from a focus on global narratives of the Holocaust, to support actions such as digital skills development and participatory narrative building through actions on collections. Although the projects are all centralised, they have a clear research agenda and the team's work has contributed to community building online through supporting topical interest.

A key lesson from this example is that aims should be social and not technological and should focus on reflexive co-construction of project aims involving community members. Local museums could move beyond demographic concepts of audience towards more participatory models, away from an indistinct 'public' (Rottenberg, 2002).

Local museums necessarily could aim to serve small communities of people. For the USHMM, the audience of *Remember Me?* is relatively small and the individuals are connected by one common interest. They are not geographically bounded, but there is a space that connects them all.

Because of this, the USHMM provides a significant case study for change of practice in local museums towards making connections between people and collections away from the idea of the audience.

6.4 Museum of Anthropology, University of British Columbia

The Museum of Anthropology (MOA) in British Columbia works with researchers and curators globally to create the Reciprocal Research Network (RRN) (2013) which launched in 2010. The RRN shares information about digitised objects relating to Northwest Coastal First Nations bands by providing an online collaborative research tool (Iverson, *et al.*, 2008). The RRN takes the form of a website which aims to find ways to realign the collections with the needs of communities and individuals (Rowley, *et al.*, 2010). The RRN is a partnership between the Musqueam Indian Band, the Stó:lō Nation and Tribal Council, the U'mista Cultural Society, and the MOA at the University of British Columbia (RRN, 2013), as well as several other museums around the world. British Columbia was visited in 2013 and three key individuals from the project were interviewed: Ann Stevenson, Information Manager at MOA, Ryan Wallace, Software Designer, and Nicholas Jakobsen, Developer, both from Culture Code, a Vancouver Web development company that has developed the RRN website.

6.4.1 Findings – Contextualising narratives with personal responses

The RRN uses the model of a social networking platform to present collections information online. The three First Nations bands that partnered with the project were part of the development process of the RRN online resource (Stevenson, A., 13th May 2013, *pers comms.*). Representatives of the groups contributed to the development of a Memorandum of Understanding (Stevenson, A., 13th May 2013, *pers comms.*). This involvement ensured that tools within the website were used by band members to communicate needs as the project developed (Rowley, *et al.*, 2010). Had the RRN project attempted to use pre-existing social networking platforms, the committee may have experienced barriers to implementation because of the lack of control of access to content. Instead, Culture Code created a bespoke social network which encourages sociality and therefore creates contact networks (Hogsden & Poulter, 2010). This kind of network has been referred to by Lyons as a “*communicative space*” (2011). Through this, the meaning of objects can be restaged in relation to individual and community identity.

The RRN has been designed so that public and private spaces can be modified as projects evolve, enabling collaborative rather than participative involvement in narrative creation (Nicholas, *et al.*, 2011: 12). The iterative modification of access to different spaces on the RRN website allows users to share content at different levels of privacy and to change privacy settings as trust develops (Rowley, *et al.*, 2010). Both Wallace and Jakobsen were keen to point out that the RRN is not a collections database (Jakobsen, N., 13th May 2013, *pers comms.*; Wallace, R., 13th May 2013, *pers comms.*). Objects are not presented within traditional models of curatorial practice. Instead, they are found within a flattened space online, and meaning can be created by users adding information to the records. In this way, the RRN facilitates an active relationship between artefacts and people. The moment of connection between the individual and the digital object is the space within which interpretation is enacted.

6.4.2 Lessons learned - Local museums can be collaborative

Evaluation of the RRN pointed to several necessary constituents for the LOCCol approach of collaboration. User generated content in the RRN is not currently added to the MOA's collections catalogue. Comments added to artefacts via the RRN are read by the MOA team and specific information is selected to be added to individual records (Jakobsen, N., 13th May 2013, *pers comms.*). This means that much of the significance attached to objects by the individuals using the RRN is not currently made use of by the MOA's part of interpretation. Accessioning this additional contextual information would be a next step for the project that could lead to a more collaborative partnership.

Archaeology is at the forefront of examining the difficulties associated with working in a collaborative rather than participative manner with communities and would benefit from using co-design principles (Simpson & Williams, 2008; Carman, 2011; Sayer, 2014). However, few local museums have resources available to commission bespoke Web applications or to engage in time consuming co-design practice. The RRN uses tailor-made tools, but the core functionality of the RRN already exists within pre-existing social media tools. Many tools and networks have private, public, and hybrid spaces that could be modified for the specific needs of communities. If used in combination, content could be shared privately in the same way as the RRN, and then become public based on a community's requirements over time.

For local museums, the priority should always be the communities for who relate to the collections. For museums with universal collections this relationship can be flexible but local

museums should always acknowledge people in the locality within which they are. This includes visitors to a region attracted to a museum for multiple reasons. Local museums should not fall into the trap of ignoring the equifinality of people's reasons for engaging with heritage. Key to this is to ensure that multi-vocality is considered (Graham, 1998).

It may not always be appropriate to make collections wholly public. This seems to contradict the ideology of the Web (see Chapter 4). Social media allows for a staged model of private to public to be implemented. In the UK, the kind of negotiation of personal significance over greater good through access to collections that in Canada must be at the forefront of all decision making, is rarely considered. There is an assumption that collections should be made accessible to all in the UK. This is an approach that this thesis supports. However, in failing to facilitate negotiation in decision making, local museums in the UK may be neglecting to recognise the complexity of relationship that can exist between individuals, communities, heritage organisations and artefacts (Scott, 2012; Labadi, 2013). The ICOM definition for a museum does not explicitly mention the discursive responsibility of a museum but, for most museums, experiences of collections now recognise Merriman's instruction to facilitate engagement with objects that are freed from the glass case (1991) and this developed to include more participatory forms of exhibition design. This has provided what Bennett calls a "*political-discursive space*" (1995: 102). Within this democratic and pluralist societies are displayed. Despite this, museums in the UK continue to focus on pre-defined audiences (Creigh-Tyte & Stiven, 2001; Mason, 2004; Kawashima, 2006; Durrer & Miles, 2009).

Space is an essential concept for the creation of Web-based communities (Baym, 2011). The metaphor of space enhances the feeling of shared understanding and therefore of community (Steinkuehler & Williams, 2006). This can be expressed as a "*third place*" (Baym, 2011: 77), originally identified by Oldenburg (1999). Social networking platforms have been repeatedly held up as being a solution to this loss; digital social spaces to communicate within communities. A third place after this model could allow museums to engage with the complexity of multiple agendas. Oldenburg's third places allow for the development of relationships that fulfil the need to communicate with others outside of our normal home and work life, and to come across other world views (Putnam, 2000). In turn, the experiencing of other world views is an essential part of our gaining of social capital. The RRN is an attempt to provide this kind of third place by acknowledging the significance of experiencing difference and supporting divergent interpretations of material culture.

Social media has not provided a way for smaller museums to contribute to or engage with public opinion. Instead, current social media use by local museums has tended to mean that that organisations are forced into ever decreasing self-referential online communities. For museums, it is also rarely acknowledged that a collaboration may not be beneficial or result in social equality (Byrne, 2008, Nicholas, *et al.*, 2011). La Salle's reflexive account of conducting archaeological research with Indigenous communities in British Columbia explores the meaning of collaboration in projects that are effected negatively by organisationally designed intentions (2010: 410). There is a fundamental dichotomy in the conceptualisation of collaboration between organisations and communities, highlighted by La Salle's work. Public space is an essential component of social cohesion within a city-scape as it enables the experience of others to ensure heterogeneity (Mitchell, 2003: 18).

Social media are not providing the third place that they seem to be. What users are experiencing is a reproduction of already established networks and world views. This expression of identity through similarity and therefore narrowing of social difference can be described as *homophily* (McPherson, *et al.*, 2001). The attraction of like to like expressed as homophily has been proven within a social media context (De Choudhury, *et al.*, 2010). In social networking platforms social capital is gained through participation in a set of behaviours that are dictated not by the user but by the system within which the users are operating. For example, in Twitter, tweets are not seen in news feeds unless the originating user account has a substantial following (Chu, *et al.*, 2010). In the case of significant user accounts, such as celebrities or public figures, substantial following is a direct result of verification by the company that owns Twitter (Ringel Morris, *et al.*, 2012). In another example, Facebook walls are populated with content that has been filtered by opaque algorithms. These give weighting to content based on decisions made by the social networking platform and not by the users themselves (Diaz, 2008; Van der Hof & Prins, 2008: 117-119; Bucher, 2012; Diamond & Plattner, 2012; Lasorsa, *et al.*, 2012; Edwards, *et al.*, 2013; van Dijck, 2013b; Gillespie, 2014: 167). For instance, media rich content will gain significance over less visually stimulating status updates. The Facebook 'timeline' therefore is not representative of status updates from the entire user network over time. The world views that users experience within Facebook and Twitter are not necessarily therefore from those outside of the user's own home or place of work.

Little research exists into the potential for social media to be used by museums to provide a private space. The mass communication *Stretching further, Projecting louder, Looking bigger*

broadcast model of social media use, identified in Chapter 3 and 4, is well established in the museums sector. However, social media can provide a private space for many, in which an organisation can (as the RRN has) act in the capacity of mediator for connections with collections.

The idea of the Web as an influencer of behaviour has been put forward by many academics and professionals (Giedd, 2012; Steiner Adair & Barker, 2013; Ward, 2013; Whitty, 2013; Bond, 2014; Graham & Dutton, 2014). The inventor of the Web, Berners-Lee describes a blueprint for the Web which has a social base (1999: 195), and reiterates that the Web was designed around Universalist principles (*ibid.*: 208). Berners-Lee believes that the Web will change society, enabling us to “*work together harmoniously*” (*ibid.*: 206). Commentators on the development of the Web however, describe a technology that has impacted on societal constructs such as the de-formalisation of organisational structures and the growth of peer production (Margetts & Dunleavy, 2013), and has blurred borders between society and state (Abbate, 1999: 127; Shadbolt, *et al.*, 2013). The community that developed the Internet was driven by an idealism that remains at the heart of rhetoric surrounding social media. The idealism of technology as social innovation has been described over time as a reaction to “*technocracy*” (Roszak, 1969), as the “*hacker ethic*” (Levy, 1984), and as “*cyberculture*” (Turner, 2006). But regardless the term used, the essential concept is the same: a countercultural group self-organise to creatively use technology as a way to overcome societal woes.

In opposition to this idea of counter-culturalism, some Web scholars argue that once social media gets to critical mass, it replicates homogeneity of content as outlined above (Fenton, N., 2012: 132). So far, use of social media seems to exacerbate real world problems with institutional involvement is leading to loss of perceived authenticity. This poses a problem for organisational use of social media. The RRN overcomes this homogeneity of experience by placing emphasis on individual accounts and responses to objects; personal response builds meaning around content.

Social media has increasingly provided spaces for cultural engagement delivered through the production of media content (Beer & Burrows, 2013: 49). Content can be created by an increasingly diverse user-base but is still generally an individual activity (*op cit.*). This means that users create and maintain online representations of themselves, which are made up of profile information that is self-created as well as automatically derived by the platforms. This is augmented by media content, such as photographs, links to content, and comments. This means that digital content is tied into expressions of the self-online but that it is also shaped by pre-

existing social structures in the real world. Resources such as the RRN provide a way for museums to contribute to improving the representation of multi-vocality on the Web.

The RRN provides a digital museum for participant communities, as it enables individual and group contact with the collections of the MOA through digital means. Within the RRN, the digital object is representative of the material object but instead of acting as a digital surrogate, it is merely a mnemonic for the individual engaging with it. The artefact online prompts a reaction, but does not attempt to facilitate a simulated real world engagement. Instead it aims to improve the digital record of the real-world object for the community and the museum. The next stage of this enactment would be to provide means to present the communities' response to the digital objects alongside the material artefacts. Stevenson commented that this had been attempted with digital tablets displaying the RRN mounted next to artefacts on display in the MOA galleries (Stevenson, A., 13th May 2013, *pers comms.*). This use of digital interfaces within the galleries emphasises the changing nature of interpretation of collections by museums, and represents a real world augmentation of the MOA's relationship with the collections and the communities which emphasises transparency.

Objects have been considered by museums to be central to the projection of identity (Carreau, 2012: 201-214). Objects in museums are considered to be important in the construction of personal and collective as well as private and public memory, as per Gosden and Marshall's work on a Fijian necklace in the Pitt Rivers Museum (1999: 170-172). Gosden and Marshall illustrate the complex relationship between people and objects in a way which is rarely represented online by museums. A substantial body of work exists that considers the significance of the materiality of objects in negotiating these relationships (Hodder, 2012a: 89-94). There is a misconception that small local museums without many original artefacts offer less of an 'authentic' heritage experience as discussed in Chapter 3. In addition to Gosden and Marshall's (1999) work, Hodder (2012a) demonstrates that the object itself is a flexible vessel which can be understood in many different ways. Acknowledging the transitory significance of objects gives legitimacy to local museums as the emphasis is not on 'special' objects with inherent meanings, but more on the use of the object to tell stories. The RRN uses social media to provide space for alternative stories and plurality; it enables complexity of interpretation to be expressed through social interactions with artefacts.

Local museums can also be sites of critical discourse. Waterton and Smith have described a more critical form of heritage practice that recognises the importance of community-led interpretations

(2010). This can only occur if a museum embraces the dynamic interpretation and presentation of heritage. The provision of flexible public and private spaces of interaction presents a way to support the adoption of change. Local museums (particularly trust-run institutions) are better equipped to do this than larger national museums because of the agility afforded by their size and structure.

6.5 Lessons learned across all case studies - Local museums can be located

A key lesson taken from the case studies is the possibility of cementing the locatedness of local museums through technology, as part of improving the located approach within the LOCCol approaches. Focusing on real world issues, such as the impact of climate change on the region, can help to align interests between local museums and communities (Piccini, 2013). Issues provide a focus, and the museums can provide spaces for experimentation. Angelbeck and Grier's recent publication on archaeological heritage management acknowledging indigenous people recommends that researchers can advance horizontal relationships that work within existing societal hierarchies by combining them with long-term relationships that enable understanding of the political hierarchies to be developed (2014: 538).

All three case studies provide examples of work with a strong institutional presence combined with community focussed activities (Wyman, *et al.*, 2011: 462). In order to achieve this within local museums, smaller organisations would potentially need to develop methodologies to enable a commitment to discursive experiences. Refocusing efforts towards individuals and communities could achieve this if local museums break down the separation between the strong decision-making public and the weak external public as identified by Fraser (1990: 72-77). Local museums have been doing this in the analogue world for over ten years (McPherson, 2006), but it is not reflected in their uptake of social media which is predominately top-down, as demonstrated in previous chapters.

6.6 Conclusions

The case studies show that local museums would need to tie social media use into clear goals and to plan accordingly. There is an increasing pressure to maintain a presence on popular social media (Prince, 2013). Social media user accounts that are not maintained can be more damaging

than non-use (Noone, *et al.*, 2011). Inexpert use of social media can also be detrimental (Kietzmann, *et al.*, 2011). Creating opportunities to stage identity through social media could be a driving factor in the decision of a local museum to use a particular tool or platform. Using social media on a project basis helps to ensure that use is appropriate and that user expectations are met. If local museums are to support community building, this should go beyond a “*collective action problem*” (Singleton & Taylor, 1992: 315), to enable interaction without mediation by the museum. Social media sites predetermine context, which works against this kind of community development online as consumption takes priority (Marwick, 2005: 9-11; Margaretten & Gaber, 2014: 328).

The methodology of this thesis (Chapter 2) described a bottom-up approach that would better support local museums’ use of social media. It seems that a move away from top-down implementation of functionality may have a positive impact on community building. Many social media platforms prioritise consumption of pre-determined context via content over community building and the cultivation relationships based on shared interests (Marwick, 2005; 9-11). In supporting real world social structures, social media is not delivering on the promised revolution in social equality or the polemic of openness (Castells, 2000: 384; Bertot, *et al.*, 2010; Rybalko & Seltzer, 2010; Marwick, 2014). This continuation of social structure manifests in practice on the Web in the use of social media as a tool for the presentation of the self-online. This impacts on the flows of information online between people (Appadurai, 1986; Bell, 2000: 96-7; Taylor, *et al.*, 2014). Earlier social tools and platforms online, such as Internet relay chat (IRC) based forums were topically organised but the trend now is for social media to organise around the users (boyd & Ellison, 2007). In social media today, people are the ties instead of topics, and this has led to increased pressure around individual management and then digital manifestation of identity. Presentation of the self-online requires the construction of reputation via advanced knowledge of social hierarchies and can be exclusionary. Local museums can improve this situation.

The local museum today aims to provide a simultaneously public and private space for the negotiation of identity (McPherson, 2006), and there is an increased support of the importance of community involvement in the work carried out by museums (Nash & Christie, 2003: 22; Coffee, 2008; Thumim, 2009; Crooke, 2011). In reality, for local government most approaches to community service delivery are not community-defined but instead tend to be top-down (Craig, 2007: 340). Local museums could overcome this top-down definition of objectives in Web use in order to move away from the idea of *the public* as a homogeneous external entity online. There

has been a broad shift across the museums sector from a focus on disconnected individuals whose idea of heritage is shaped by political influence (Eder, 2001: 610), towards understanding community as being culturally constituted (Neal, 2013). This has led to research in museums studies identifying that community is made up of groups of individuals that self-define their own personal relationships. Trends in exhibitions design at HCT seem to support this new approach. The best practice case studies above and additional examples in Appendix P indicate a move towards this approach. However, the behaviours of museums online do not currently reflect this change. Social media could provide a way to engage with individuals and communities away from the confines of aims defined at a government-level, and local museums are well-situated to front this change. Based upon the analysis above and upon identification of opportunities for implementation of social media at HCT (Chapter 4), a series of small augmentations to current practice at HCT are designed and described in Chapter 7. These scenarios provide a way to explore future strategic planning at HCT and explore the barriers to and opportunities for implementation. Chapter 7 will describe and evaluate the HCT response to these proposed solutions. This in turn will inform the development of a framework for local museums wishing to adopt social media; the Museums Use Social Media (MUSM) framework.

Chapter 7: Towards goal-oriented social media use

7.1 Introduction

This chapter examines proposals to improve the uptake of social media in the context-dependent setting of HCT. The theory building activities in the initial phases of the research support the proposal of objectives for implementing the Located-Open-Connected-Collaborative (LOCCol) approaches. From these objectives, solutions are developed to respond to opportunities identified whilst working with HCT staff and volunteers as part of the action research carried out for this thesis. Through evaluation of the solutions, a final form for the LOCCol approaches is identified. These form the basis of the design of the Museums Use Social Media (MUSM) framework. Figure 25 overleaf illustrates the main stages in the process reported in Chapter 4 to Chapter 8. Additional supporting activities are discussed in the chapters.

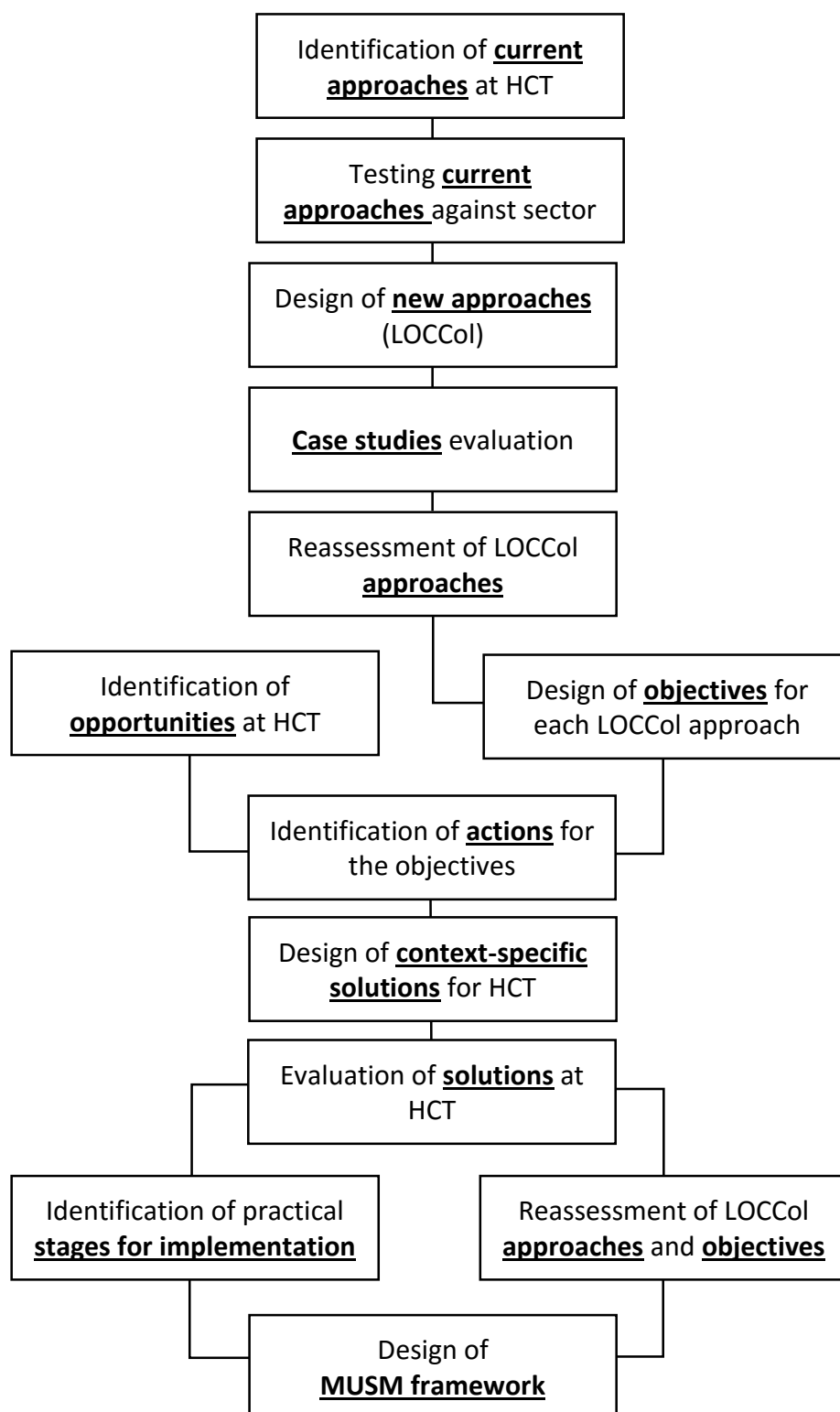


Figure 25 – The process of the MUSM framework design. The intervention being designed, evaluated, or identified at each stage is underlined.

The development of an integrated, co-designed approach to heritage experience through local museums should be specific for each local museum because they are situated within unique social contexts. The LOCCol approaches were identified in Chapter 5 and tested against the case studies in Chapter 6. Objectives derived from the LOCCol approaches are now applied in a local museum context in order to realign motivations for online activities to the experience of local heritage.

Evaluation of social media use and attitudes to the Web at HCT from Appendix I acts as a preparatory study for the design and evaluation of the project proposals. Through this work, setting-specific opportunities that social media could support at HCT were identified. The opportunities include leveraging dormant assets and short-term availability of skills so that interventions from commissioning can be made sustainable, developing strategic approaches to online community development, recognising community concerns within planning, acknowledging volunteers as creators of content, and ensuring that digital content generated by the organisation is more suitable for the Web. The objectives for the LOCCol approaches are used to focus on these context-specific opportunities to design solutions to evaluate at HCT.

7.2 Designing objectives for the LOCCol approaches

The objectives discussed in this chapter are thematically tied to the LOCCol approaches and are designed to embed social media strategically into organisational activities. The objectives represent potential new methods for local museums with archaeological archives (LAMAs) to adopt in order to overcome the issues outlined in previous chapters. The objectives are relevant across LAMAs, whereas the solutions are organisation specific. Figure 26 overleaf illustrates how local museums can re-align towards heritage by using the LOCCol approaches. This forms the basis of the design of actions for the objectives and HCT-specific solutions to those actions.

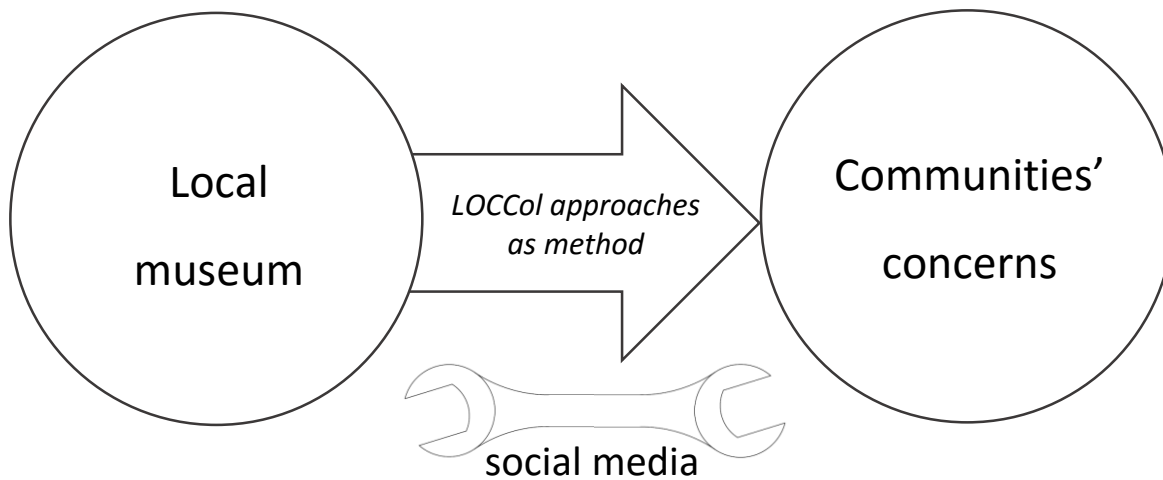


Figure 26 - A local museum re-aligned towards heritage, can make use of social media as a tool to aid re-alignment.

In the model in figure 26 above, local museums use the LOCCol approaches as a method to address communities' concerns. Social media acts as a tool to enable this use of the approaches in a context-specific environment.

The objectives identified and discussed in this chapter are:

- *Objective 1:* Local museums can support the negotiation of identity within a safe space online.
- *Objective 2:* Local museums can encourage creativity and therefore overcome commodification of creativity in social media and contribute to the augmentation of curatorial practice.
- *Objective 3:* Local museums can provide a third place for community building by realigning aims with community concerns.
- *Objective 4:* Local museums can engage in digital storytelling to augment object reframing and to provide context for individual engagement with heritage.

Actions to carry out in fulfilment of the objectives through social media were designed using analysis in the previous chapters. Participatory design principles were employed in designing solutions to the actions for implementation at HCT.

7.3 Designing context-specific solutions for social media

The evaluation at HCT identifies and tests new uses of social media that are research-based whilst simultaneously focusing on practice. The proposed solutions experimentally test the cogency of the LOCCol approaches formulated as part of this thesis and were evaluated by employees at HCT.

The co-designed approach to developing experiences of heritage online through social media use is achieved by testing the LOCCol approaches at the unique situation of HCT. The co-designed solutions are based on the challenges that social media presents for local museums identified in the previous chapters, combined with the findings from action research at HCT, as reported in Chapter 4 and Appendix E and I. In order to design objectives for the LOCCol approaches, solutions were designed in consultation with the Digital Collections Officer (DCO), and the Curator of Archaeology (CoA) at HCT. This was achieved through meeting several times with participants and talking casually about best practice instances of social media use in order to build a picture of the potential of particular approaches to technology use.

Current approaches to social media were identified at HCT at the beginning of the research. Opportunities where social media could support or improve practice were identified through meetings, interviews, observation, and participation in activities in previous months as discussed in Chapter 4 and the HCT social media audit carried out as an initial analysis in Appendix I. The solutions were designed to incorporate the digital skills needs that had been identified amongst the volunteers at the archaeology stores, as per the analysis in Appendix E. The solutions evaluated in this chapter are intended for the first phase of social media adoption, namely informal experimentation, but it is from this that organisational adoption will occur (*op cit.*). Each objective and solution is described and evaluated in detail in Appendix Q.

Solutions developed for HCT take into consideration approaches to social media use within organisations, in particular the three-stage model for adoption put forward by Mergel and Bretschneider (2013). This identifies that personal need outweighs organisational need in the adoption of social media (*op cit.*).

The first phase of research at HCT identified the importance of volunteers at this particular LAMA. Volunteers play a complex role and are understood by governing bodies and by paid staff as being recipients of the work of museums, as well as being contributors to that work (Holmes, 2003; Orr, 2006; Deery, *et al.*, 2011; Vogelpoel, *et al.*, 2013). They occupy a dual role but are often miscategorised as audiences of museums (Holmes, 2003). There is little evidence of volunteers

contributing to social media use beyond posting and sharing content. This was seen in the social media audit and observation carried out in the archaeology stores supported this finding. The potential of social media to contribute to the volunteer experience at HCT provided a focus for the development of the solutions. The digital skills audit carried out with the volunteers provided the background for this focus (see Appendix E).

As part of the reflexive nature of the methodology for the research for this thesis, Appendix V contains the second reflexive researcher statement. This statement has been included as a reflection on the ways that time with HCT had impacted on my attitudes to the research topic. This statement considers how findings from the theoretical and practical analysis undertaken as part of the first two phases of the research had been shaped by my own assumptions about the topic. This focuses particularly on my experiences both personally and professionally of social media. Following the evaluation at HCT, potential impacts of the new approaches on local museums were identified, and these are included in the analysis that follows.

7.4 Evaluation methodology for context-specific solutions at HCT

HCT paid staff and volunteers were shown examples of projects through the research website (www.localmuseums.org) and from these hypothetical projects for HCT were suggested. These hypothetical projects were built around opportunities identified at HCT to pursue LOCCol objectives. During time spent at HCT, participative action research was also carried out to test the practical implementation of solutions. Discussion of this evaluation is contained within this chapter.

HCT provides an organisation-specific focus for experimentation with potential methods for improving the use of social media by local museums. Evaluation focuses particularly on how the social functionality of the Web represents a latent method for heritage experience. The major focus during interviews and observation at HCT was on key paid staff and volunteers that care for the archaeology collections. These are the Marketing Officer (MO), the Digital Collections Officer (DCO), and the Curator of Archaeology (CoA), as well as the team of regular volunteers. The evaluation at HCT demonstrates how archaeological collections in local museums can be central to community-led experiences of local heritage through social media. The DCO and CoA were identified as the key managers with decision making responsibilities in relation to the archaeology collections and to use of social media at a level that could impact strategically on organisation activities. The decision to focus on these participants was informed the important role that middle

management tends to play in creating organisational change aligned to strategic vision (Caldwell, 2009: 75). Findings discussed in this Chapter 4, suggests that this is largely the case at HCT.

Recommendations for the strategic planning of service improvement suggest that proposals should be formal, and that physical documents are an effective format (Ashworth, *et al.*, 2010: 62-63). As such, solutions were provided to the CoA and the DCO in leaflet form. Each leaflet contained an introduction to an approach to encouraging social interaction on the Web with collections. The leaflet then outlined how a local museum could utilise the approach and provided some examples of related use cases. Finally, the leaflet suggested ways that HCT specifically could make use of the approach. The leaflets were intended as throw-away items, but one example is included in Appendix J as an illustration. In addition to printed matter, a website designed for this research was used to show relevant online resources to participants. Screenshots of this are included in Appendix K. As part of semi-structured interviews, the proposed solutions were presented in turn by discussing examples from the best practice case studies in Chapter 6 and the additional case studies in Appendix P.

The following sections respond to the findings from the evaluation at HCT, by identifying the ways in which the LOCCol approaches could contribute to current practice in local museums.

7.5 First stage of evaluation: Practical implementation of social media

The evaluation at HCT indicated that all participants believed that social media could result in positive feedback for their work and could improve existing processes. But findings indicated there is a lack of knowledge relating to effective use of social media. This section describes the first phase of analysis which occurred through participative action research at HCT in order to develop a series of context-specific solutions.

The CoA and the DCO are responsible for almost all of the digital work undertaken in relation to the archaeology collections. Balogun describes middle managers as “*change intermediaries*” (2006). At HCT, the CoA and the DCO would need to be enabled to respond creatively to prompting positive changes in social media use. For this to occur, advocacy would initially need to be built amongst all staff and volunteers. For HCT, implementing new modes of engagement with social media would therefore involve both advocating alternatives and synthesising evidence, as per Caldwell’s typology of management (2009: 78).

The smaller size of local museums means that staff are under increased pressure to engage with digital technologies. The reasons for low uptake of digital technologies by all types of organisations are due to a lack of staff time and funding and a lack of key technical skills (MTM London, 2014: 36-7). The lack of digital skills is extremely relevant in the case of local museums, and is one of the major reasons that museums find themselves falling behind other cultural and arts sector organisations in the uptake of technology such as the Web. In a cultural heritage institution, the less money is available, the more staff members will be involved in digitisation (Stroeker & Vogels, 2014: 6). Stroeker and Vogels' findings illustrate the importance of digital skills for smaller museums on non-specialist staff to bring digital skills to the organisation. This was reflected at HCT where every staff member that I spoke to was involved in the digitisation of collections.

As with many local museums, most adoption to date has begun with identification of a tool or platform and subsequently guided by the affordances of the platform. This has led to a lack of direction as objectives are vague and technical skills are lacking. Within HCT there are currently several approaches to the use of social media. The findings in Chapter 4 described how the CoA sees a strong correlation between curatorial practice and new media. Activities are currently focused on moving real world activities onto the online world. The strategies for adopting social media platforms and tools are predominately technology focused; as museums are concerned to be seen to use the 'next new thing' (Beale, 2011: 48-9). This correlates with the innovation-focused approach to understanding of social media. The DCO is driven by organisational level pressures to digitise collections, and this agenda is clearly impacting on decisions being made about the use of social media to this end. The MO has a clear focus on pre-defined audiences and a schedule for social media use that is tightly aligned to marketing needs.

The CoA agreed that social media could provide a means of co-designing strategy. For example, positive feedback through social media could inform activities being carried out on the archaeology collections, but that there would need to be clear modes of reporting in order to ensure that opinions were representative of people's needs:

"Well yes, obviously if you had people clamouring for more. People saying give me more of that. I really like that. You know, if you're just sort of blowing your trumpet into the wilderness then it doesn't help anybody does it. I mean a lot of people might be hearing it, but they're, if they're not moved to say 'oh that was nice, do it again', then you know, you're missing out aren't you really? You're wasting energy and opportunity. So yeah, I

think all the time – and I think, you know the frustration is, you know, for a very long time, you put these things out there.” (Allen, D. 5th July 2015, pers comms.)

Despite seemingly simple user interfaces (Keenan & Shiri, 2009), social media is part of a complex system (Guliciuc, 2014). Tasks conducted within social media do not lend themselves to routine repetition and require a high level of interaction. This could be a reason why the use of social media within local museums has been so limited. The potential for routine use is significant for the uptake of an activity within an organisation (Becker, 2010). However, complexity can negatively affect the development routine (Lee, *et al.*, 2010). This will have an impact on the uptake of a new activity such as social media at HCT, and methods to overcome this complexity could be explored. Complexity is an essential part of innovation (Tiwana & Bush, 2007). For social media to be adopted at HCT, actions should be broken-down into component parts (Alshamaila, *et al.*, 2013).

Social media can support the kinds of longer term engagement that HCT staff are keen to develop. For instance, the CoA comments on a need to engage more people in the county in archaeological publications:

“Here’s a classic example, you’ve got five, six hundred people who say they’re interested in a subject enough that you produce a book, and yet you know that even some of them don’t open them. I mean, we’ve got two at Andover Museum and they haven’t even picked them up! And now the next one’s there, waiting for them. So they’re supporting, but they’re not really delving. And you wonder why. And is it? And why only five hundred people in a county the size of Hampshire when it ought to be two thousand, you know? So, yeah, there are all these, sort of barriers.” (Allen, D. 5th July 2015, pers comms.)

The problem that he identifies is tied into follow-up on expression of interest and retention of audience. Research in the third sector has identified that encouraging follow-up on pledges in social media is particularly difficult (Phethean, *et al.*, 2013). Changes in society resulting from increased access to the Web, discussed in Chapter 3, 4, 5 and 6 are reflected in changes to behaviours of people’s expectations from experiences with heritage online.

For the third sector more broadly, there has been a change in types of engagement. Volunteering to contribute to the facilitation of events has become episodic (Hyde, *et al.*, 2014). This move is reflected elsewhere in engagement with leisure time activities (Iyer & Eastman, 2006; Khvorostianov, *et al.*, 2012). If it is perceived as an opportunity by local museums, this could have

a positive impact on experiences of heritage. Episodic involvement is suited to social media use, and the ebbing and flowing of interest can be encouraged through platforms and tools that are geared towards the piecemeal experience of information (Lee & Ma, 2012). Social media is suited to rapid changes in interest, and can be used to maintain a constant peripheral presence, ready to be available when personal motivation requires. Local museums can contribute positively to enabling multi-vocality of information as a response to the filtering effect of social media (Hermida, *et al.*, 2012).

Compatibility can also affect innovation (Rogers, 2003), and ways to incorporate social media into everyday business processes must be found. For HCT, this could be designed through in-depth interviews with staff to identify needs. For example, the CoA described a frustration in needing to keep up with activities being carried out by special interest groups in the county that create archives for the archaeology collections to absorb:

“And yet, I think that there is the activity within the County, and I think a lot of it is down to the local level, so you’ve got lots of little groups. And some of that’s because you’ve got chiefs and Indians, you’ve got sort of that, but, when I was – when we had the Hampshire Archaeological Committees, that was years ago, because it sort of folded. I always thought we should join every local society we could get, just to get our hands on their newsletters and secretaries’ writings and everything, and that would be a way of, you know, compiling everything, and keeping a finger on the pulse.” (Allen, D. 5th July 2015, *pers comms.*)

At a local level, the CoA needs to follow professional and amateur archaeological activities such as surveys and excavations as well as stay abreast of changes to the built environment of Hampshire through building developments, land-use change and environmental factors. The decrease in core and grant funding makes this difficult. There could be the potential here to use social media to support information gathering around these topics. Conversely, the CoA must also report on activities occurring within the archaeology collections, and this is a major concern:

“So much of it [the archives] is invested in us curators, and when we go, you know we’re all going to go within the next two or three years, so much will just disappear with us, and okay, so it’s all there, and it will be picked up, but in that picking up process, a lot will just be lost.” (Allen, D. 5th July 2015, *pers comms.*)

Findings from the evaluation process at HCT seemed to indicate that technology acceptance by organisation representatives is complex. This could be because many people who carry out essential tasks for museums are not paid staff (Heywood, 2010); the relationship that they have with organisational strategic approaches cannot be understood in a conventional way. This additional complexity could be incorporated into plans for social media use as they represent a deviation from conventional technology acceptance models.

Recent research found that local museums are struggling to find resources to train ever increasing numbers of volunteers (MA, 2014a: 12). This has led to a digital skills deficit. To date there is little research that contributes to understanding about the impact of the increasing reliance on volunteers in the museums sector on organisational innovation.

At HCT, volunteers are innovating, but organisational uptake of this innovation is low. Technical skills are available, but under-utilised at many HCT museums. Basing House, an outdoor site with a small museum and extensive building remains and earthworks, has several volunteers who are retirees from project management and information technology roles. This situation is seen across HCT and in other local museums (Jackson, *et al.*, 2014: 80). In late 2013, the Basing House volunteers self-organised and began a project to improve Web access for visitors to the site, but staff at the site have been unable to offer appropriate support to facilitate implementation of innovative ideas coming out of this work. Another volunteer has been writing blog posts about his daily experience at the site (Andrew H., 2013), but is using a temporary blog that was set up to support a HLF project that finished in 2012 and the staff who managed the blog left the organisation. Most content is now out of date. This means that the blog is no longer maintained and not an appropriate platform for this activity. However, there has been no alternative solution offered by HCT and this may be due to the lack of awareness by the central teams of these activities. Further investigation would be required to confirm this.

HCT could communicate challenges to volunteers in order to leverage skills, and provide a way for volunteers to feedback and offer positive suggestions to the organisation. For many of the older volunteers, the reluctance to use technology such as social media is tied into factors that deviate from the technology acceptance model for organisations (Braun, 2013). Ease of use and social pressures are not as significant for older people (*op cit.*), and instead perceived usefulness of a technology, trust in social media and also the frequency with which an individual uses the Web is important for uptake, and this seems to be occurring at HCT.

The volunteers are a key resource for HCT in the uptake of social media, but more importantly, the use of social media amongst the volunteers could be enabled by HCT in order to improve cultural capital through supporting technology skills development.

The expression of identity, both communal and individual, is at the heart of heritage experience and is therefore also central to the mission of local museums' use of the Web. This is not currently evidenced however in most local museums' use of social media. Heritage should be understood as a living thing, something that public or national bodies such as museums, can enhance place-identity through action (Ashworth & Larkham, 1994: 2). Through social media local museums can better understandings of the connection between heritage, locality and identity (Ashworth, 1994: 14).

7.6 Second stage of evaluation: Ensuring organisational uptake of social media

The objectives to social media described in section 7.2 could make significant contributions to enabling local museums to leverage heritage as a method to support connectivity, materiality and dialogue with people. This objectives are potential impacts that each LOCCol approach could have at a context-specific level. The objectives are outlined in table 9 below alongside the relevant LOCCol approach.

LOCCol Approach	Associated potential impact (Objective)
Located museum	Support the negotiation of identity by providing a safe space online
Open museum	Augment curatorial practice online
Connected museum	Support community-led aims, whilst maintaining organisational presence online
Collaborative museum	Contextualise away from historical, nostalgic trajectories of meta-narratives online

Table 8 – LOCCol approaches and associated potential impacts (objectives)

The objectives for the LOCCol approaches were identified from analysis of the case studies. The relationships between the case studies, LOCCol approaches, and objectives are illustrated in figure 27 below. The specific way in which this could occur for a local museum is defined in further detail below.

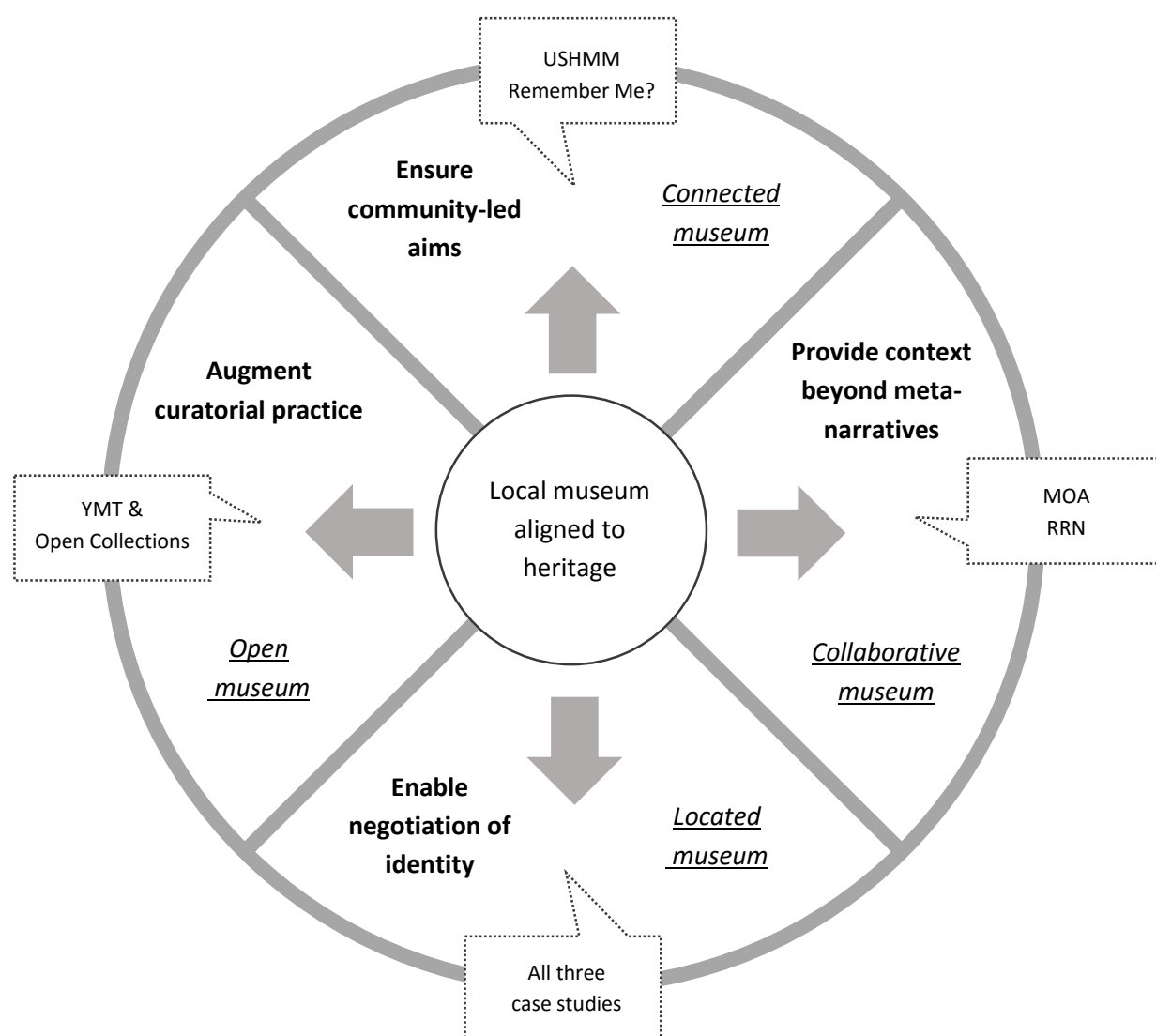


Figure 27 - Visualising the relationship between the key components of local museum activities, key approaches to technology use, case studies.

7.6.1 Designing actions for implementation of context-specific solutions

Following the first stage of evaluation of the objectives for LOCCol, actions were identified that provide practical methods for the implementation of the objectives were reviewed and context-specific solutions for each action were designed. These solutions are real-world activities that

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could be carried out at HCT in order to apply the LOCCol approaches in a context-dependent setting. The following sections (7.7 to 7.10) contains a summary of the detailed analysis of evaluation at HCT found in Appendix Q. The evaluation of solutions in Appendix Q was analysed and the major concerns for each LOCCol approach were identified. This chapter contains the response to those concerns. The response suggests ways to respond to concerns and improve the impact of the actions and therefore objectives of the LOCCol approaches. Table 9 overleaf provides an outline of the actions and solutions and illustrates how they respond to each LOCCol approach and objective.

LOCCol approaches							
Located museum		Open museum		Connected museum		Collaborative museum	
Potential impacts (Objectives)							
Support the negotiation of identity by providing a safe space online		Augment curatorial practice online		Support community-led aims, whilst maintaining organisational presence online		Contextualise away from historical, nostalgic trajectories of meta-narratives online	
Actions	Context-specific solution	Actions	Context-specific solution	Actions	Context-specific solution	Actions	Context-specific solution
Facilitating expression of identity rather than audience building through social media use	Support skills development by providing content for reuse	Encouraging a move to open licensing by iterative building of advocacy internally and externally via social media	Enable creative reuse of content by inviting community feedback	Building advocacy by supporting input from non-institutional groups	Supporting reuse of content through active sharing of resources with established communities	Focusing on volunteers to encourage innovation in practice and build organisational digital skills	Enable broader experience of social media for volunteers within a safe environment
Encouraging networks for professional skills development in social media	Innovating with collaborative networks for digital skills development	Signposting archaeological content more effectively through social media	Creating positive links between social media content and everyday activities in collections care	Reducing technological determinism through designing objectives for social media use	Design objective-driven experiences that are conceived bottom-up	Utilising support networks through social media use	Strengthening community connections through facilitating real contributions to collections knowledge

LOCCol approaches							
Located museum		Open museum		Connected museum		Collaborative museum	
Potential impacts (Objectives)							
Support the negotiation of identity by providing a safe space online		Augment curatorial practice online		Support community-led aims, whilst maintaining organisational presence online		Contextualise away from historical, nostalgic trajectories of meta-narratives online	
Actions	Context-specific solution	Actions	Context-specific solution	Actions	Context-specific solution	Actions	Context-specific solution
Supporting skills development of all users, internal and external, through activities in social media	Engaging with national events on social media to provide experience with tools and platforms	Fostering transparency with volunteers within social media to improve reuse of collections	Opening up organisational processes in order to crowdsource community input	Informing community needs through event-focused social media use	Carrying out a digital audit to better understand community needs	Enabling volunteers to lead digitisation and incorporating this into social media use	Developing guidance to enable tool and platform use by volunteers
Expressing curatorial skill more creatively and openly through social media	Experimenting with open licensing through multi-platform narratives of digital surrogates of objects			Joining up real world concerns with online collaborations	Use an existing digital platform to enable people to respond to research questions		

LOCCol approaches							
Located museum		Open museum		Connected museum		Collaborative museum	
Potential impacts (Objectives)							
Support the negotiation of identity by providing a safe space online		Augment curatorial practice online		Support community-led aims, whilst maintaining organisational presence online		Contextualise away from historical, nostalgic trajectories of meta-narratives online	
Actions	Context-specific solution	Actions	Context-specific solution	Actions	Context-specific solution	Actions	Context-specific solution
Connecting external sources to collections data online to facilitate new context	Linking external contextual data to object data using metadata indexes			Encouraging discussion by reporting on internal activities more frequently through social media	Releasing digitally interesting content openly to facilitate reuse as well as object identification		

Table 9 - The actions and context-specific solutions for each LOCCol approach (with associated objective).

7.7 Objective 1: Provide a safe space online for the negotiation of identity

Local museums can support the negotiation of identity within a safe space online. This objective is related to the LOCCol approach of the located museum. Focusing on supporting the development of groups of interest through social media could improve development of personal and professional digital skills and improve digital capacity in the sector more generally. The evaluation at HCT seems to indicate that the team are keen to improve access to collections online by making better use of social media. Focusing on identity building over pre-defined audiences could encourage new narratives around collections and make connections with existing content elsewhere. Contextualisation could enable knowledge building based on individual needs and this could support longer term skills development.

Experimentation with new forms of curatorial practice online could improve information about heritage related topics on the Web, as well as making existing content from the organisation more findable, connecting concepts. Encouraging involvement from external parties could build knowledge about the collections and improve connections between sites, collections, and actors in the care and interpretation of the collections. Establishing networks for skills development could improve transparency of activities to involve volunteers more openly in decision making and lead to a more connected institution. This could raise the profile of the organisation with a wider audience and improve links with national and international initiatives. Making use of existing infrastructures could free up activities from restrictive legacy systems whilst making more of existing digital assets.

The actions for objective one can be summarised as:

- Facilitating expression of identity rather than audience building through social media use
- Encouraging networks for professional skills development in social media
- Supporting skills development of all users, internal and external, through activities in social media
- Expressing curatorial skill more creatively and openly through social media
- Connecting external sources to collections data online to facilitate new context

7.7.1 Context-specific solutions for actions in objective 1

Table 10 below outlines the specific actions for objective one and the context-specific solutions for evaluation at HCT.

Actions for objective 1	Context-specific solution for HCT
Facilitating expression of identity rather than audience building	Support skills development by providing content for reuse
Networks for professional skills development	Innovating with collaborative networks for digital skills development
Supporting skills development	Engaging with national events on social media to provide experience with tools and platforms
Expressing curatorial skill online	Experimenting with open licensing through multi-platform narratives of digital surrogates of objects
Connecting external sources to collections data online	Linking external contextual data to object data using metadata indexes

Table 10 - Actions and context-specific solutions for HCT for objective 1 - Local museums can support the negotiation of identity within a safe space online.

Each of the actions and solutions above are described in detail in sections Q.3 to Q.8 of Appendix Q.

7.7.2 Evaluation of objective 1

Analysis of the evaluation of the above solutions at HCT can be found in Appendix Q, sections Q.3 to Q.8. The analysis identified the following concerns:

- There is currently a lack of capacity within the organisation to carry out tasks. Particularly, lack of skills and time are an issue and would need to be built into plans.
- There is a risk that efforts will not meet expectations of users, and this may impact on reputation. Involvement of additional content creators may lead to loss of control over content, reduction in quality and sustainability of content from this loss of control.
- In order to encourage use of a social media platform that is organisationally supported, the potential usefulness of such a space would need to be presented in such a way that it was endorsing the use of social media for sharing positive stories and for building good will and support internally. This would mean that a group or page would need to advertise

its official links in order to ensure that content was appropriate and that participants were safeguarded.

7.7.3 Responding to concerns

As a response to the concerns raised through working with HCT, there is a strong indication that a major challenge for local museums when using the Web is to provide ways to overcome barriers to engagement by transcending associations between heritage and social capital (Holtorf, 2010: 170). Local museums are distinct from other forms of heritage encounters online as they are able to provide a place to engage with heritage that is not “*killed and cooked*” through heritage tourism (MacCannell, 2011: 150).

Heritage is not tied into the historical trajectory common within tourism which charts improvement along a trajectory as time passes (Watson, 2015b: 39-40). Local museums can provide a safe space on the Web within which identity relating to heritage can be enacted. In doing so, they need not lead, but participate in, debate online. There is a challenge here for the sector to provide spaces that are non-threatening, defined by Casey as: “*safe place[s] for unsafe ideas*” (2001: 231), but to take an active role in issues such as social inclusion (Sandell, 2003; Welzer, 2010: 16).

Studies evidence a struggle to differentiate between individual experience and popular culture which is collective memory imposed by the dominant culture (Kammen, 1991: 10; Traister, 1999: 203). Local museums can provide contextual evidence to enrich social memory online, whether it be to support or refute those memories. Local museums have the capacity to deal with the experience of memories at multiple levels simultaneously; individual, community (Walsh, 1992: 162; Trevelyan, 2012: 6-16), and societal (MacDonald, 2012: 274, 2013: 165; Sandell, 2012: 571). Locally focused approaches to dealing with controversial identities are necessary as micro-approaches are the only way to reveal specificity on a local level (Bendix, 2009: 255). Micro-approaches echo the trend online for distributed solutions to large challenges and the increasing popularity of crowdsourcing tasks, such as product marketing and design (Greengard, 2011; Poetz & Schreier, 2012; Zhao & Zhu, 2014). Micro-approaches also offer a way to represent useable solutions to local museums that may need to react quickly and flexibly to changes in resource availability.

Publications about the use of technology within the museums sector for visitor experiences indicate that learning is a key signifier for the impact of technology (Antoniou & Lepouras, 2010; Ho, *et al.*, 2011; Fraser, *et al.*, 2012). Museums have a well-established relationship with learning theory through visitor studies research (Falk & Dierking, 1992; Hooper-Greenhill & Moussouri, 1999; Hein, 2002; Falk, 2006; Hooper-Greenhill, 2011). The MUSM framework should build upon the established nature of the cycle of learning to present a specific methodology for the exploration of social media for museums. As discussed earlier in this thesis, there is a tendency in this type of theory to assume that identity is a static attribute when evaluating museum experiences (Falk, 2009; Bickford, 2010; Dawson & Jensen, 2011). This does not allow for consideration of the potential for heritage to facilitate the re-negotiation of identity across multiple communities online. The framework should be structured instead to acknowledge that people have fluid identities. As a result of this, local museums have multiple functions, and aims are negotiated on a community basis. The framework must allow for the negotiation of identity as part of a process of experience with heritage that is enabled via social media.

7.7.4 Conclusions: Located museum

The located museum is based on an approach that defines community-led aims above governing body requirements for online activities. This means that they are audience-driven rather than being reliant on audience categorisation. This approach proposes that local museums can help people to experience socialisation and cultural outcomes online. Evaluating local museums' contribution to identity at a personal, community and societal level rapidly becomes complex when we attempt to translate current approaches from the offline to the online world. This is evidenced by Butler in her affirmation of identity as instable, performative and constituted by expressions (1990: 4-5, 25). Local museums have engaged with performed identity in the analogue world and can develop a methodology to identify cultural outcomes experienced through social media by engaging in a more informed way with people through social media.

7.8 Objective 2: Augment the expression of curatorial practice online

Local museums can encourage creativity and therefore overcome commodification of creativity in social media and contribute to the augmentation of curatorial practice. This objective is related to the LOCCol approach of the open museum. A move to open licensing online could lead to a more complete view of the collections and establish a relationship of trust between the organisation

and new audiences. Evaluation seemed to support this and several methods were identified to facilitate openness at HCT. Openness around activities and decision making processes through communicating within social media can help to build an argument for an open agenda. Signposting activity and content more effectively within the organisation could improve attitudes to social media and encourage creative reuse of content.

Fostering transparency could improve communication with wider audiences by increasing awareness of the variety of collections. Responses from staff indicated that this could result in cultural capital building and awareness of organisations by enabling individuals to leverage opportunities presented by engaging with open content from local museums. This could improve the personal experience of volunteers, increase recruitment and improve retention. Openness and positive stories of impact could lead to a more reflexive volunteer experience which would inform future directions of volunteer programmes. Greater diversity of open content could involve more staff and volunteers in the digitisation and interpretation process which could increase the standard of interpretation online and increase specialist involvement. This in turn could lead to a new mechanism for reviewing collections.

The actions for objective two can be summarised as:

- Encouraging a move to open licensing by iterative building of advocacy internally and externally via social media
- Signposting archaeological content more effectively through social media
- Fostering transparency with volunteers within social media to improve reuse of collections

7.8.1 Context-specific solutions for actions in objective 2

Table 11 overleaf outlines the actions for objective two and the context-specific solutions for HCT.

Actions for objective 2	Context-specific solution for HCT
Iteratively moving towards open licensing	Enable creative reuse of content by inviting community feedback
Signposting archaeological content more effectively	Creating positive links between social media content and everyday activities in collections care
Fostering transparency with volunteers	Opening up organisational processes in order to crowdsource community input

Table 11 - Actions and context-specific solutions for HCT for objective 2 - Local museums can encourage creativity and therefore overcome commodification of creativity in social media and contribute to the augmentation of curatorial practice.

The actions and solutions above are described in detail in sections Q.10 to Q.13 of Appendix Q.

7.8.2 Evaluation of objective 2

Analysis of the evaluation of the above solutions at HCT is found in Appendix Q, sections Q.10 to Q.13. HCT was concerned that the adoption of transparency, reviewing licence agreements, and incorporating community concerns may result in prolonging the planning period of already tight programmes. The main issues identified were:

- Incorporating perspectives from additional parties would require training and there is no guarantee of return on investment.
- The organisation would be competing with global-scale corporations and there is a pressure to provide high-quality content. Content may be of unpredictable quality and this may prove problematic.
- Groups may not be interested in content and relationships may not be easy to broker.
- The governing bodies may not support this less traditional form of curation.

7.8.3 Responding to concerns

Improving advocacy of curation via social media seems to be a central need for HCT. Keene's commonly accepted definition of a museum as a physical resource that actively communicates concepts to the public (2002: 90) is echoed in local museums' objectives when using social media (Latham & Simmons, 2014: 11). However, the local museum is well placed to experiment with new forms of curation online. Local museum collections are rich in digital and physical facsimiles and objects of local conceptual significance as such, they are ideally suited for theoretical work

and storytelling. This role can be cultivated by adopting a model of the museum as a site of public debate and idea formation, rather than transmission of ideas *from* the museum. This kind of theoretical model would be ideal in a local museum context; a localised selection of voices responding to meaningful collections both together and individually (Silverman, 2010: 16). On the Web there can be a focus on the individual over the community and content is often orientated around consumerism (Gray, 2007: 210; Thompson, *et al.*, 2011: 3). The open agenda at YMT provides potential methods for the move to a more inclusive approach to engaging with the Web. For instance, in the way that the Wikipedian in Residence encouraged reuse of digital content. Social interest can be incorporated into models of staging curatorial practice online by encouraging creative use of content derived from collections.

Translating the expertise of local museums so that they incorporate the convolutions of the Web could mean that they contribute to digital inclusion and move the Web closer to the imagined model of humanity connected (Hofheinz, 2011). Berners-Lee's most recent campaign, Web We Want (2014), explicitly refers to the web as: "*humanity connected*" (BBC, 2014). This is not the reality of social media as digital exclusion is a serious issue globally. Generally society continues to view the Web as an innovator of social change. ICOM defines a museum as working in the service of the development of society (2007: 2), and this has much in common with the accounts of rhizomatic revolutions and networked social movements on the Web (Castells, 2013). Access to knowledge societies is recognised as key to cultural innovation (Bindé, 2005: 58; UNESCO, 2013) and is also central to the mission of museums as institutions (ICOM, 2007).

Local museums are experts in recognising the significance of people's behaviours through approaches from visitor studies. They excel in the measurement of social and economic impacts of relationships between people and organisations. As the self is realised via creative practice (Castells, 2009: 127), in providing safe spaces online, local museums can act as a creative hub, a real world role currently attributed to national museums (NMDC, 2004). Local museums can facilitate knowledge of issues such as autonomy, community, identity, and expression of the self within social media and can encourage its creative use. The collections cared for by local museums provide an ideal focus for this creativity. As organisations that are charged with supporting a sense of place, local museums have a duty to enable experimentation with interpretation of heritage. Local museums have a responsibility therefore to augment curatorial practice online to assist this to occur.

7.8.4 Conclusions: Open museum

The two major aims associated with the open museum are; opening up processes in order to incorporate social experiences with the organisation, and opening up content in order to extend the reach of collections beyond the museum building. A key theme for the openness agenda is relinquishing control of content, this is an attitude that could be encouraged in local museums. Local museums are positioned to create new kinds of objects that are not only digital objects, but are digital *social* objects intended for the Web. This intention informs the nature of the objects and should include a commitment to openness and flexibility of context. This can only occur if people are able to take objects from a museum, to reuse content for their own purposes. This relinquishing of control of digital content is much rarer in museums' use of the Web.

Part of this approach is the incorporation of user motivation into museum working. Research has shown that adoption of social media tools is reliant on compatibility with user behaviours and on individual characteristics of users (Corrocher, 2011). This makes prediction of success of projects that adopt social media problematic as this is a highly idiosyncratic acceptance model. Local museums instead could move from attempting to appeal to individual motivations for sharing multi-purpose digital content via many social media tools and platforms. Local museums can overcome this issue by approaching social media not as a myriad of tools and platforms, but focusing instead on the creation of multi-purpose digital content that can be used and reused on different social media platforms and tools, therefore increasing potential reach and impact at an individual level.

7.9 Objective 3: Develop community-driven aims

Local museums can provide a third place for community building. This objective is related to the LOCCol approach of the connected museum. Increasing support for non-institutional groups via social media could result in developing new relationships that challenge the professional-personal dichotomy. This could also lead to a more embedded approach to social media use that is based in clearer understanding of the purposes of specific tools and platforms within the organisation's objectives. This could result in challenging current assumptions about skill, see figure 28 overleaf.

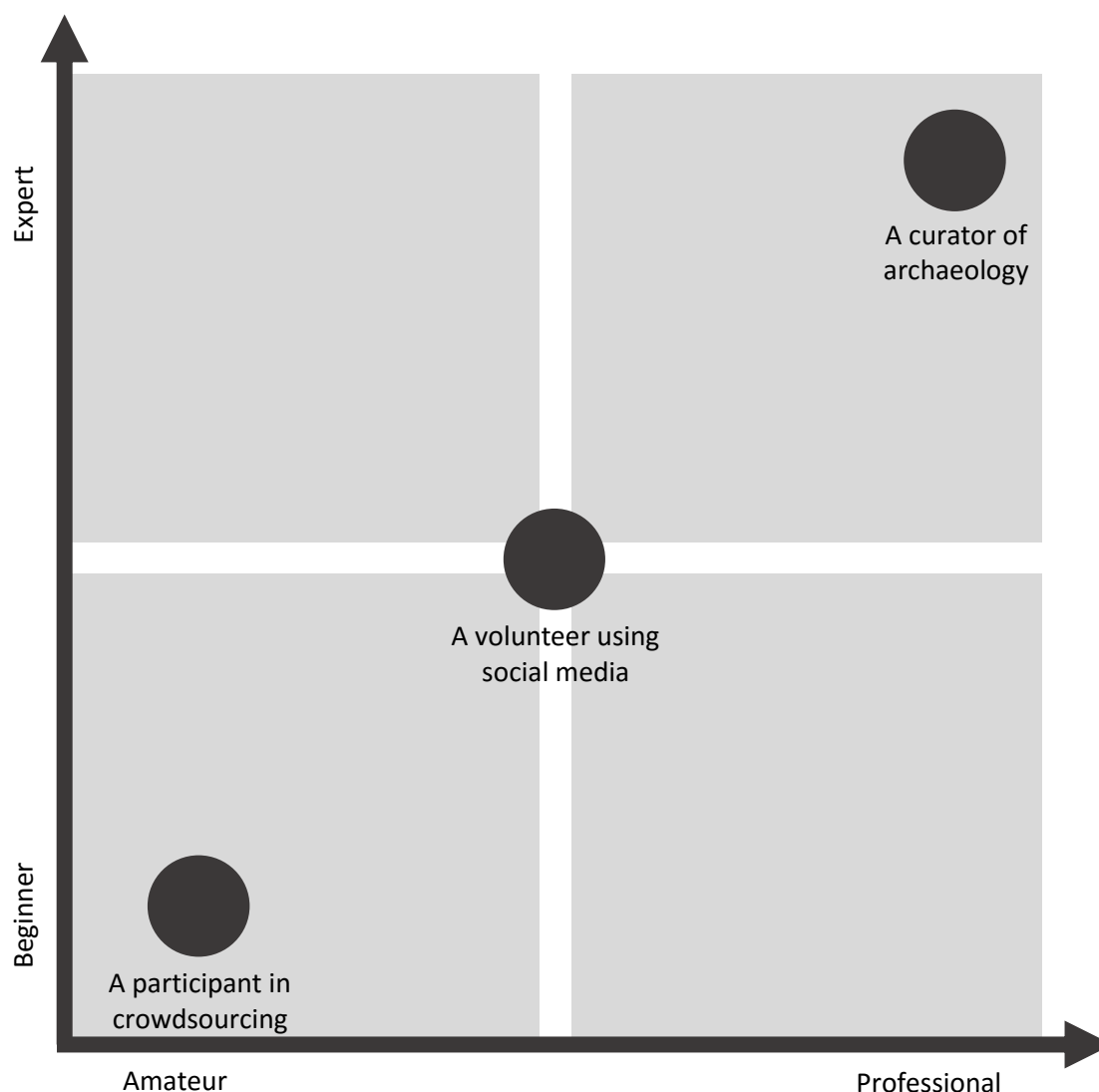


Figure 28 – The current assumptions about skills relating to social media use are not necessarily accurate.

Guidance could improve digital skills from the improved understanding of needs of audiences and internal stakeholders such as paid staff and volunteers. This could also improve understanding around the place of volunteers in the diagram above. Improvement of digital skills could be achieved through central reporting of achievements to improve awareness internally of digital activities. By enabling submission of interpretations of collections by external parties, object identification could be improved and metadata around digital surrogates of artefacts could also improve. Encouraging discussion about the digital and online activities of the organisation could increase awareness about digital collections and improve reuse opportunities.

The actions for objective three can be summarised as:

- Building advocacy by supporting input from non-institutional groups

- Reducing technological determinism through designing objectives for social media use
- Informing community needs through event-focused social media use
- Joining up real world concerns with online collaborations
- Encouraging discussion by reporting on internal activities more frequently through social media

7.9.1 Context-specific solutions for actions in objective 3

Table 12 below outlines the actions for objective three and the context-specific solutions for HCT.

Actions for objective 3	Context-specific solution for HCT
Advocacy through supporting non-institutional groups	Supporting reuse of content through active sharing of resources with established communities
Reducing technological determinism through social media use	Design objective-driven experiences that are conceived bottom-up
Informing community needs through event-focused social media use	Carrying out a digital audit to better understand community needs
Joining up real world concerns with online collaboration	Use an existing digital platform to enable people to respond to research questions
Encouraging discussion	Releasing digitally interesting content openly to facilitate reuse as well as object identification

Table 12 - Actions and context-specific solutions for HCT for objective 3 - Local museums can provide a third place for community building by realigning aims with community concerns.

Each of the actions and solutions above are described in detail in sections Q.15 to Q.20 of Appendix Q.

7.9.2 Evaluation of objective 3

Evaluation of the ideas for this objective can be found in Appendix Q, sections Q.15 to Q.20. The evaluation at HCT highlighted a concern about the resource requirements of planned activities, particularly the time needed to implement ideas. There was also a concern about the impact of opening up collections to real world concerns by allowing community generated content to be connected to collections information online. Specific concerns were:

- An overview could quickly be lost of content being added to collections, and mechanisms would need to be put into place to manage people's expectations of content. Particularly, the lack of content that may result from relinquishing control over social media accounts.
- It may not be easy to include user submitted content into collections' records and this may affect relationship building between the organisation and the individual. In addition to this, piecemeal digitisation may result in frustrations about availability of data and hardware could present barriers to use.
- Organisation representatives' involvement in existing social media groups may affect the group dynamic and be seen as being insincere.
- Current measurement processes were inadequate to report on the impact of community-led activities within social media.
- Archaeological artefacts and archives are particularly difficult items to contextualise online through social media, and therefore require more time commitment than other kinds of content.

7.9.3 Responding to concerns

Local museums are a social organisation and as such can provide a "*third place*" online as described by Oldenburg (1999). Social media does not currently support this kind of a space when individuals engage with it away from institutional support. This is because institutional involvement provides a centralised focus for the management of social behaviours. Local museums are experts at managing expectations of spaces, and are ideally suited to support the creation of third place within social media. As a third place within social media, local museums can support the building of community and individual cultural capital (Newman, 2013). There is potential here for local museums to highlight and celebrate difference. This could lead to the active reduction of homophily online. In this way, local museums can shape the development of social media and of the Web more generally to acknowledge the issues of digital inequity online.

Local museums can prioritise community and identity over consumption and therefore improve the bonds within communities. This is because they can provide catalysts to encourage direct communication between people and can inspire communities to move beyond original collective action through facilitating access to stimulating digital content. Local museums can provide the four components of Singleton and Taylor's model of a community (1992) as discussed in previous chapters, in order to support community building online. This is because local museums are

traditionally understood in popular culture to be static institutions of learning; buildings containing experts who create and disseminate knowledge which is broadcast to the public (Russo, *et al.*, 2008; Moser, 2010).

In recent years, museum mission statements have followed the trend in the heritage sector to prefer the term community over public (Watson, 2007: 3). Local museums in particular are moving away from the use of public as a way to categorise the people that they are for. However, the use of community as a way to refer to the people that a museum serves seems to be merely a renaming of public in the use of the Web by local museums. It does not currently represent a significant shift in ways of working (Barrett, 2011). Despite best intentions in local museums, community has rapidly become a catch-all for the same model of society as was encompassed by public when online. This increased interest in the issue of identifying which communities a museum serves was discussed in the early 1990's (Karp, 1992: 3). Commentators in the sector voiced concerns that museums were making assumptions that communities were clearly defined. This was informed by Habermas' work on the public sphere which is institutionally weighted (1989).

Models of museums as reflexive community-focused arenas (Pearce, 1999; Wilson, 1999; Schorch, 2012), and as places for civic dialogue (Reich, *et al.*, 2007), focus on the museum as having an active role in a relationship that is staged by a museum for a group(s) of people. In these scenarios, museums are actors in a performance, and the museum has the lead role. Instead, local museums use of the Web could be supporting what Harrison refers to as "*unofficial*" practices of heritage (2010: 240). These would operate at a local level to facilitate social action through the re-appropriation of institutional devices for presenting heritage, as per Harrison's model (*ibid.*: 261-272). Online, instances of reworking and reapplication of institutional devices for heritage experience are common. Such as exhibiting through 'collections' on Flickr (2013), the photo sharing website, and 'curating' links to content on the social bookmarking tool, Pinterest (2014).

Local museums could provide a space where community and individual identity can be negotiated online, and where it is afforded the same importance as the formation and distinction of national identity. This would enable a move away from Smith's Authorised Heritage Discourse (AHD) (2006: 44) which emphasises 'public' as an objective for local museums online. As heritage sites through which AHD can be challenged, local museums could give precedence to individual and community requirements, negotiating the requirements of individuals and groups so that both can be accommodated.

Common assumptions about the Web describe it as community-based (van Dijck & Nieborg, 2009; Clark, *et al.*, 2014; Moffett & Santos, 2014). There is also a general tendency for reportage of social media as something that is democratised and grassroots or community-driven (Mäkinen & Wangu Kuira, 2008; Qualman, 2009; Juris, 2012; Lim, 2012). This has resulted in heritage mechanisms through social media being promoted as being community focused activities by default. The very use of social media seems to assume community-based activities. But the tools and platforms that make up social media are still owned and maintained at an institutional rather than individual or community level, by organisations. This is a misrepresentation that local museums could be at the forefront of exposing.

The USHMM's design of activities that are led by the needs of communities that have connections to the collections provides a way to approach this complexity of incorporating community aims into the design of Web-based communication. The USHMM's *Remember Me?* project promotes the needs of individuals over the needs of the museum, providing information to communities that are not necessarily going to become 'visitors' to the museum, but who have a personal investment in the development of the collections, for individual needs. Use of social media by local museums could attempt to move away from the objectification of identity (Anico, 2009: 67), by providing instead an online space for provocative or divisive debates to be held when needed (Field, 2012; Wood, 2013). This would allow people who are currently under-represented within local communities, to find their voice in the local museum context online.

Local museums can incorporate community-led aims into the use of social media by ensuring that all planned actions consider this as integral to the setting of objectives. In the case of local museums, the embeddedness of the collections within a geographically bounded area can be a positive resource. Local museums have artefacts that are representative in the same way as other types of museums, but they also maintain a strong link between objects and space. In this way, local museums can broker gradations of space occurring away from place for community identity building online.

7.9.4 Conclusions: Connected museum

The connected museum endeavours to make connections between collections and the rest of the world. This is achieved through the conduit of community-led activities. Previous chapters have shown that previous approaches to the Web by museums, such as virtual museums and digital museums have put undue focus on the translation of analogue models of museums across to

digital. This has led to fetishisation of the object in Web use. Local museums could focus on the experience of heritage which means moving away from emphasising the record of the object in relation to the museum, to the potential context of the object itself as a connected entity.

Museums online are predominately constructed from real world collections maintained by organisations that have a physical presence which is made available online through the model of a digital catalogue. The catalogue model can be problematic for organisations such as local museums that do not emphasise the object. Local museums tend to focus even less on the significance of the object than a national museum and will have collections made up of objects that are representative of community and individual experience. These objects are held in trust by local museums because they hold a significance at a contextual level, being simultaneously objects that have a biography and objects that ‘speak’ within a historical context (Hoskins, 2006: 78), rather than being literal. This means that local museums tend to favour narrative over aesthetic experience. For local museums however, the metier of the collection has been similar to the experience of heritage, where the emphasis has been on the metaphorical strength of the experience rather than its literal content (Holtorf, 2010: 43-44), within this model the social experience takes precedence over individual knowledge creation.

In order to encourage local museums to get involved with the open agenda, support first needs to be made available to enable smaller local museums to create digital content in a way that makes licensing and sharing easy. Currently there are no standardised pipelines for the digitisation of collections data for an open agenda, and this means that only museums that have access to either digital specialisms in-house, or funding for open data specific projects, are able to take part in open culture data. Social media could offer an augmentation to open data sharing that provides simple, easy to replicate models for narrating digital content derived from collections in a way that engages with both current and new audiences.

7.10 Objective 4: Provide context beyond meta-narratives

Local museums can engage in digital storytelling to augment object reframing and to provide context for individual engagement with heritage. This objective is related to the LOCCol approach of the collaborative museum. Including volunteers in digitisation and in innovation of use of technology was considered to be positive. It was believed to potentially lead to the development of digital skills at a personal and professional level, but also that it could facilitate social experiences between volunteers and paid staff and improve knowledge sharing within the

organisation. Using social media in this way could also lead to external networking with interested parties, improving advocacy in the organisation generally, but also improving information held about collections. This could be facilitated through collaborative information discovery which could contribute to identification of objects in the collections. Encouraging playfulness with digital content could reduce barriers between the organisation and people with an interest in the collections. Working with volunteers on innovation of social media use could enable curators to express the complexity of the role that they play in the care and interpretation of collections and this could improve experiences of stored collections for external parties. Enabling volunteers to develop digital skills through engaging with the collections online could build a better overview of the collections for the institution and could improve how the organisation tracks and evaluates reuse of content.

The actions for objective one can be summarised as:

- Focusing on volunteers to encourage innovation in practice and build organisational digital skills
- Utilising support networks through social media use
- Enabling volunteers to lead digitisation and incorporating this into social media use

7.10.1 Context-specific solutions for actions in objective 4

Table 13 below shows the actions for the fourth objective and the solutions designed for the context-specific situation of HCT.

Actions for objective 4	Context-specific solution for HCT
Volunteers and innovation	Enable broader experience of social media for volunteers within a safe environment
Utilising support networks	Strengthening community connections through facilitating real contributions to collections knowledge
Volunteers and digitisation	Developing guidance to enable tool and platform use by volunteers

Table 13 - Actions and context-specific solutions for HCT for objective 4 - Local museums can engage in digital storytelling to augment object reframing and to provide context for individual engagement with heritage.

The actions and solutions above are described in detail in sections Q.22 to Q.25 of Appendix Q.

7.10.2 Evaluation of objective 4

The analysis of the evaluation of the above solutions carried out at HCT can be found in Appendix Q, sections Q.22 to Q.25. At HCT, participants' comments indicated that the increased involvement of volunteers in the development of social media use may result in loss of control over publication schedules from interpretation of collections. The main concerns seemed to be that:

- Tasks would need to fit in with individual needs from the volunteering experience and this could be time consuming to facilitate.
- Volunteers would need to be pro-active in their involvement and this introduces a level of unpredictability of content creation. This could result in negative perceptions on the quality of digital content produced by the organisation.

7.10.3 Responding to concerns

The significance of heritage for diverse communities has been under-represented in research on local museums' use the Web. This is exacerbated by translating the visit-centric model of a museum experience online. This disallows for deviation from the centrally endorsed, organisationally defined experience of a museum, and means that there is little opportunity for museum and person to connect online away from the idea of a public served by collections (ICOM, 2007: 2).

The growing body of literature investigating the contribution of archaeology to experience of heritage can provide a springboard into the development of activities in social media which incorporate heritage significance into aims for Web use. Smith argues that heritage should be a "*cultural process*" or an "*experience*" rather than focusing on buildings and material things which obscure real heritage (2006: 47). Incorporating *experience* into local museums connecting with individuals online would necessitate a move away from emphasis on the 'visit'. For local museums, a conscious move away from the traditional form of heritage as AHD online towards the notion of heritage enacted can be made possible through social media. The visit model can be more easily abandoned in smaller, locally focused museums because the communities within which these museums are based provide a clear focus for facilitation of experience.

The idea of heritage as process that is experienced should be central to new approaches to social media. Smith's concept of AHD is currently manifesting in local museums' use of social media. In

order to move away from AHD, local museums would need to provide a contact zone for heritage that is enacted *by* a person, *through* experience with a museum. In this way, local museums acknowledge the equifinality of the meaning of heritage for individuals and communities as it is expressed online, by enabling multiple paths that lead to multiple interpretations of heritage. The collaborative nature of this approach makes use of social media to centralise multi-vocality.

There are significant opportunities for local museums to leverage the Web in order to make heritage mobile and therefore to enable people to negotiate the bridge between private and public on the Web. The MOA's RRN provides a way forward for local museums wishing to improve the relationship between organisational and community driven agendas in the way that it acknowledges the need to provide safe spaces online that are multi-layered. Enabling strata of private and public narratives of collections to exist online simultaneously leads to a more nuanced contesting of how heritage has been used by public bodies to enforce identity. Alternative models for access to resources should be identified in order to free local museums from their ties to local government infrastructures on the Web. Social media seems to provide a medium for this. RRN provides a guide for the development of a more democratic model for heritage experience where local museums act as a conduit for the framing of identity on the Web. This is because heritage experience online can offer experiences with national identity, as well as identity on a more localised level, as well as contributing to the negotiation of individual identity as it relates to community.

The local museum is well used to incorporating amateur participation into professional practice. Paid staff to volunteer ratios are high in smaller, locally focused museums. The approaches used in this relationship can be translated onto use of social media. For instance, when LAMAs use social media to communicate a particular projection of the organisation or of a topic to the Web without involvement of communities, they risk Universalist interpretation. Creating a static object on the Web could lead to significance that is institutionally rather than individually created.

As an alternative, within social media storytelling is a key approach to providing context for digital content. The power of digital storytelling cannot come from the centre however, but should hail from the "*borderlands*" (Fyfe, 2013: 93). Because of this, digital storytelling is rarely a professional practice. Amateur storytelling occurs in social media, despite the restrictive nature of the tools. This is because people use them creatively. For local museums the amateur is also at the centre of much of the innovation that occurs, as was demonstrated at HCT. Local museums are ideally

suites to engage with more multi-vocal storytelling as a “*creative socio-cultural practice*” (Nyboe & Drotner, 2008: 161) through social media as a way to support this contextualisation of objects.

LAMAs can incorporate additional social possibilities into online digital artefacts. Objects can be contextualised within social media in multiple ways. Currently, at HCT the use of an object within social media is pre-designated. For example, a photograph of an artefact is shared on a Facebook page. Local museums can free objects from mono-vocal interpretations by emphasising the use of social media to develop responses to objects and by centralising the digital content that is shared through social media. Uploading an image of an artefact to a commons collection, and then linking to it through several social networking platforms is an alternative to the Facebook photograph which is locked into the specificities of the platform. Content shared in this way can be augmented with social context in order to ensure that an object does not remain static. Volunteers for local museums are well-placed to facilitate the re-contextualisation of digital content.

7.10.4 Conclusions: Collaborative museum

This approach aims to realise the significance of individuals’ contributions to knowledge about collections within local museums. The provision of social, safe spaces online can represent a move towards achieving the re-centring of the user of the museum. Iteratively introducing social media can impact on innovation with technology, because the Web is decentralised and museums are centralised. The decentralised nature of the Web is in opposition to the centralised nature of museums’ management, and this can cause frictions in adoption of new tools and platforms for communication online. Innovation adoption in organisations relies predominately on organisational structure (Cooper, 1998), and this could be considered in the adoption of social media for smaller local museums. For museums managed by local authorities, there is a significant challenge in contributing to organisational change at a level that will have an impact on the uptake of social media at an organisational level. One approach to this could be the iterative building of a programme of instances of social media use that provides evidence of potential value for users over many connected instances, rather than standalone larger projects. This leads to the evaluation of instances of engagement through social media use having equal importance as the engagements themselves.

7.11 Conclusion

Four key themes were identified from the opportunities of social media recognised through evaluation. These themes form the basis of the development of stages for planning practical implementation of social media in the following chapter. This is described in further detail in section Q.26 of Appendix Q. The themes are that social media can:

1. Implement activities against strategic needs
 - This theme focuses on improving the intended scope of social media use by aligning plans to strategic level objectives. This theme also aims to improve the link between organisational objectives and needs of the communities concerned.
2. Enable reflection on experience
 - This theme aims to improve technology use by auditing existing skills in order to improve take-up of digital solutions in the organisation. This theme focuses on reviewing attitudes and aims of interventions that use technology to develop understanding within the organisation. This will lead to improved buy-in from stakeholders, both internal and external.
3. Increase awareness through reporting
 - This theme focuses on the importance of incorporating evaluation at the level of implementation. This can be achieved by encouraging use of technology through inspiring individuals to engage with approaches and tools through experiencing stories about use within and outside of the organisation.
4. Support personal experimentation
 - This theme focuses on the benefits of enabling casual and personal led experimentation with the Web in order to improve planning for social media use. Planning and testing should incorporate personal motivations and also acknowledge personal experience and skills.

The following chapter will outline how the approaches and potential impacts can be implemented practically within guidance for local museums, in the form of the Museums Use Social Media (MUSM) framework.

Chapter 8: Driving sector change – Museums Use Social Media framework

8.1 Introduction to framework

The Museums Use Social Media (MUSM) framework is both conceptual and theoretical. As a theoretical framework, MUSM is a frame of reference for decision makers and researchers in the area of museum studies. The theoretical aspect of MUSM defines concepts and provides the rationale for use of social media in a local museums context. As a conceptual framework, MUSM presents possible approaches for actors within LAMAs to better understand the relationship between concepts and practical implementation of museum-specific social media.

8.2 Intended use of the framework

In the first two years of conducting this research, the initial intention was to provide guidance to paid staff and governing bodies of LAMAs for the use of social media. As research for the framework progressed, the plan evolved. The examination of local museums in Chapter 3, in combination with the examination of the affordances of social media made up of actants, highlighted a need to incorporate a consideration of volunteers and of communities into the research. The scope of the outputs of this chapter has therefore been extended to incorporate these additional stakeholders.

The booklet and companion website are intended for consumption by paid staff, governing bodies, and volunteers of LAMAs. The thesis also provides material for future research focused on generating additional outputs for this audience, this is outlined in Chapter 9. The communities of people that use LAMAs will benefit indirectly from this resource, as practice in social media use changes towards a more collaborative model. The process of defining focus and format for the framework is described below.

In line with the findings of this thesis, the MUSM framework and the accompanying materials do not aim to provide practical guidance on using particular social media tools or platforms. Recommendations to use tools such as Facebook or Twitter are not included in the booklet or the

website. Instead, the framework provides a theoretical underpinning for the localised design of social media strategies and activities.

This framework aims to empower people who work in museums to make use of social media in an effective way that is freed from the current challenges presented by organisational processes. As described in the methodology chapter, the processes of agenda setting for local museums, mean that governing bodies are necessarily included in organisational change relating to Web activities as they control high-level planning.

There are two significant barriers to embedding social media into practice. Firstly, governing bodies effect decision making through setting of pre-defined goals. Coupled with control of funding, this can constrain subsequent activity. Secondly, there is a tradition of outreach by local museums targeted at specific audiences. This can limit flexibility when engaging with unanticipated or diverse communities. Audiences are not included in the currently predominant hierarchical model of decision making, as illustrated in figure 9 in the methodology (Chapter 2, section 2.6.2.3.). The framework suggests a new model for decision making in relation to social media use. In this, the process of aim-setting considers the resource of volunteers and paid staff, which in turn improves the practicability of the specific objectives.

The process described by the MUSM framework enables strategic planning which is aligned to a more flexible method for formation of aims and of objectives with communities and individuals at the heart. Volunteers and paid staff become a key focus, as they are significant actors within the system. Figure 29 overleaf illustrates the relationships between the actors in the system. In the decision making system that underpins MUSM, actors who are closer to the centre will have greater significance for decision making and therefore to the framework steps for planning.

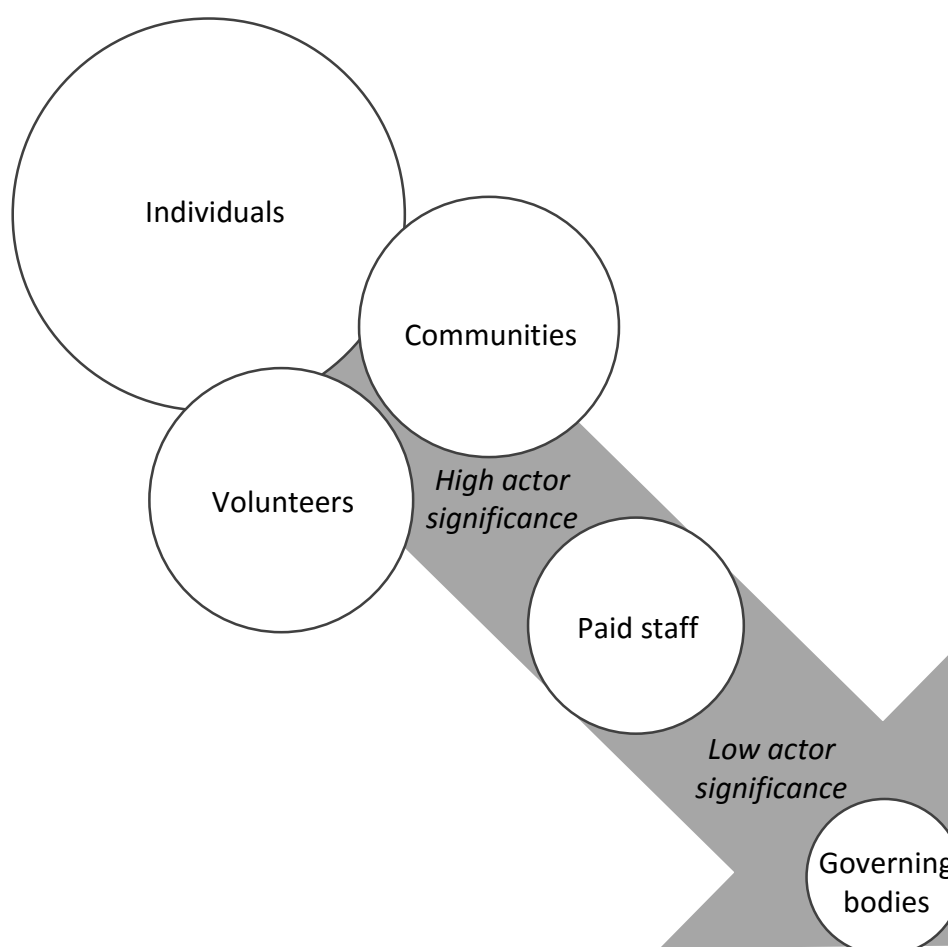


Figure 29 - Relationship between components of the LAMA agenda setting system of decision makers. Paid staff and governing bodies look towards individuals, communities, and volunteers

8.3 Framework format: Encouraging uptake of research

The booklet is titled: *Museums Use Social Media (MUSM): A framework for strategically embedding innovative use of social media into practice*. The booklet and associated resources can be downloaded from the companion website: <http://www.localmuseums.org/>. The website contains additional case studies and links to related sources of information. Screenshots of the website are contained in Appendix L.

EU advice on research for policymaking suggests continuous readdressing of stakeholders throughout project implementation (ECRISSH, 2010: 13). Dialogue was maintained with intended beneficiaries throughout the research (Tydén & Nordfors, 2000: 297). This dialogue enhances the impact of the research. Collaborating with the partner organisation on the design process for this

research project was an effective way to identify and refine outcomes to initiate organisational change (Siggelkow, 2007).

The booklet format is an established method in the museums sector for the introduction of new ideas to museums professionals (CT, 2006; MA, 2007; Renaissance North West, 2008). Of increasing popularity, but still relatively newly utilised by the sector, is the use of websites as resources for directions for museums (CT, 2013).

The results of this research have been published online under Creative Commons (CC) license (2013) in order to encourage reuse.

8.4 Booklet content

The booklet is made up of two parts. Part one contains the MUSM framework and a description of each potential impact, area for focus, and step in the planning cycle with associated tasks. Part two contains ideas themed by the potential impacts and areas for focus with associated case studies.

8.4.1 Instructions for use of the framework

As identified in Chapter 5 of this thesis, social media use is highly idiosyncratic and personal. As such this section is based on advice by Thomas that organisational change in relation to technology must appeal to individual interest in order to encourage uptake (1999: 205). The booklet therefore begins with instructions for use which include advice on the most relevant parts of the booklet for different audiences, based on motives for using MUSM.

8.4.2 The affordances of social media

There follows a four page section in the booklet that introduces the affordances of social media to the reader and briefly discusses the relationship between social media and the ideology of the Web. The highlights the inherent bias of social media. Awareness of this underpins effective use of the framework and it is reiterated throughout the contents. This section provides a model of social media that results in real world action that is made up of connections between networks of people, digital content, and tools and platforms. This is based on the findings from the examination of a potential social media for local museums from Chapter 4 and 5 of the thesis.

8.5 Framework structure

The three components of MUSM are presented in a framework format as this is common within the museums sector for aligning organisational processes with innovations in practice (MLA, 2010; SWFed, 2010; Chaplin, 2014; CT, 2014a; AIM, 2015). The framework is made up of three major components:

- Four potential impacts
- Four areas for focus
- Four stages for planning

The MUSM framework uses a linear structure. The first step involves identification of potential impacts. These impacts lead to areas of focus for social media use. In order to achieve the resultant areas of focus, there are four practical stages for planning the implementation of social media within an organisation. There are three levels of implementation which should be combined in order for the framework to embed innovative practice in social media use that is research-based into local museums' activities. In order to extend the applicability of the framework, it was designed from evaluation of potential solutions, as described in Chapter 7.

Participative design approaches ensured that the framework can be easily embedded into existing organisational practice. As such, the areas for focus are suggestive and not exhaustive. They can be interpreted in multiple ways, and are meant to be representative of potential solutions. The framework works as a standalone intervention for LAMAs but can also be used in conjunction with the proposed objectives from Chapter 7 as these provide context-specific examples of use. Figure 30 overleaf shows the MUSM framework as it appears in the booklet.

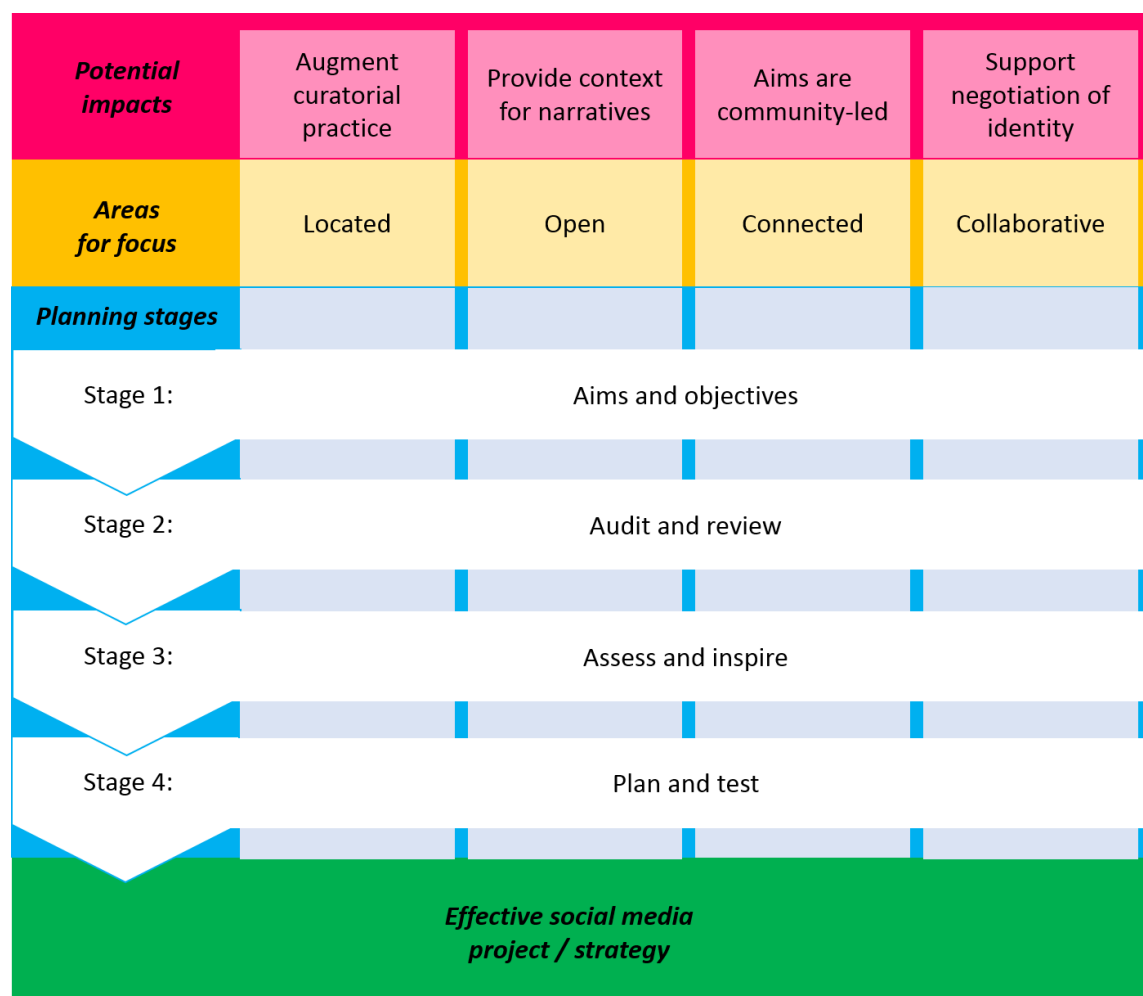


Figure 30 – The populated MUSM framework

8.6 Framework components

The MUSM framework provides alternative approaches to social media that extend online activities beyond the *Stretching further*, *Projecting louder*, *Looking bigger* approaches identified in Chapter 3. The booklet contains a brief description of the current influences on practice, but the focus is on presenting positive alternatives for practice. The justification of each of the components of the framework are described below.

8.7 Potential impacts

Areas for focus within the framework are designed to be motivated by the potential impacts. The impacts are based on the findings from Chapter 3 to 7, and are particularly based on the potential

areas of opportunity identified in the evaluation of the solutions at HCT in Appendix Q and the objectives of the LOCCol approaches in Chapter 7.

The potential impacts describe the major areas in which a LAMA can support the communities that it serves:

- Augment curatorial practice
- Provide context for new narratives
- Develop community-led aims
- Support identity negotiation

Each impact is described in the booklet within the context of the use of social media by LAMAs. The impacts are the underpinning variables that should be considered when planning any activities relating to social media use. In this way, they act as objectives or can provide inspiration during each of the planning stages.

8.8 Specific areas for focus

There are four areas for focus put forward as potential approaches to the use of social media by local museums. These are a response to the current approaches identified in the previous chapters. The areas of focus act as aims in the planning of social media activities for local museums. In the current use of social media, local museums are attempting to use the tools and platforms in the form that they already exist in order to seem to overcome the major challenges to their relevance as examined in Chapter 3 to 5. The suggested areas for focus (LOCCol approaches) were identified in Chapter 5 to 7. The areas for focus are described in detail in the booklet. In order to use the framework, the areas for focus provide the specific motivation for interaction with the framework.

8.9 Stages for planning

The stages for planning are based on the findings from the best practice examples examined in Chapter 6 and the evaluation of solutions at HCT in Chapter 7, particularly section 7.11. The stages have been designed to support the planning of standalone social media projects, as well as organisation-level strategies for social media use.

There are four stages for planning of the framework within the areas for focus. These stages are part of an ongoing iterative cyclical process. On reaching stage four, framework users are expected to refocus efforts onto stage one. The areas for focus can be addressed individually or in combination by using the stages for implementation.

The steps for implementation contained in the MUSM framework are based on the learning stages from Kolb's learning cycle (1976; Kolb, *et al.*, 1984). There is a good awareness of this model within the museums sector, particularly within the area of visitor studies (Allen, 2004; Benfield, *et al.*, 2008; Tsybulskaya & Camhi, 2009; Sanford, 2010; Tison Povis & Crowley, 2015). However, the popularity of the learning theory, particularly for the cycle for learning, means that the precedence for approaching change in this manner has been set for individual growth and organisational planning. The learning cycle is illustrated in figure 31 below.

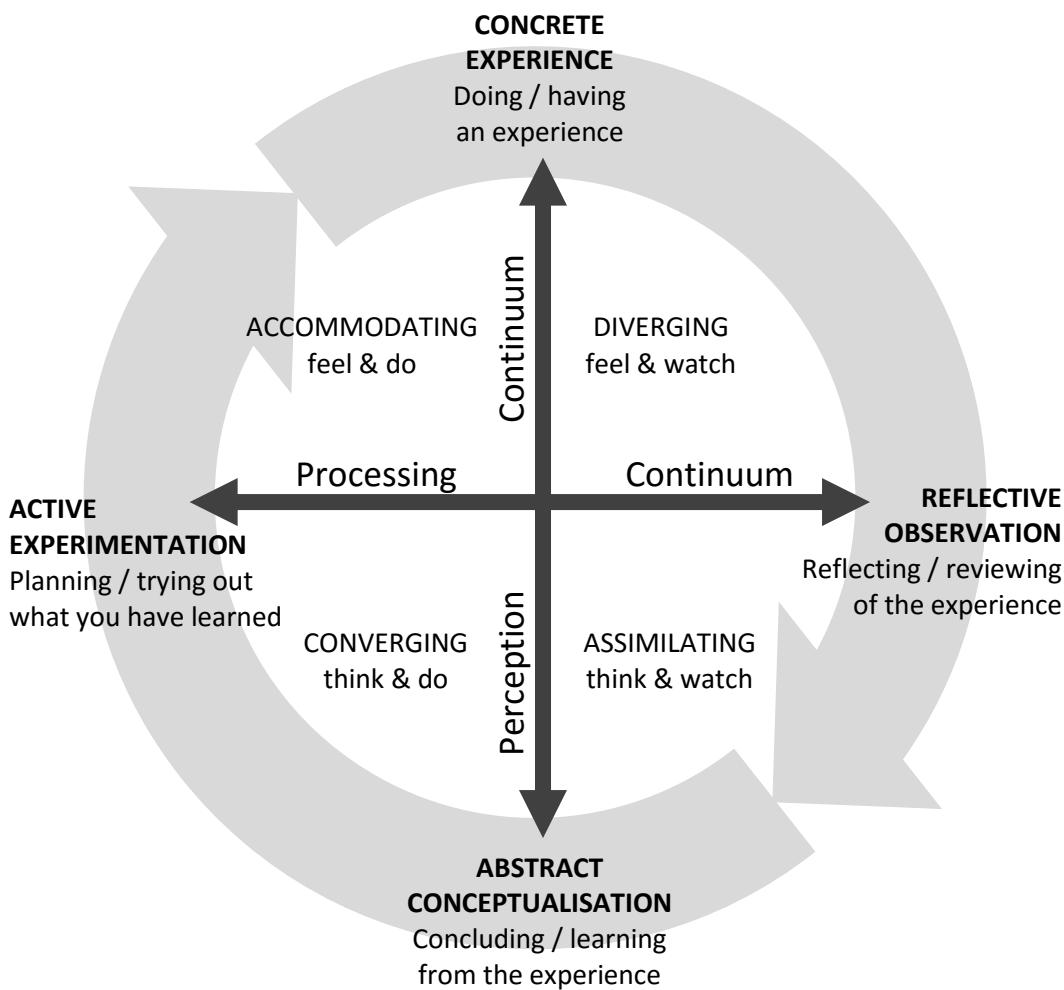


Figure 31 - Kolb's learning cycle and learning styles continuums. Based on Kolb *et al.* (1984).

In Kolb's learning cycle, experience, reflection, conceptualisation, and experimentation occur cyclically. The continuums upon which these experiences of practice occur are related to the activity of processing learning and of perception of learning. In order to embed social media into practice at LAMAs, a change in both the conceptualisation of social media as well as a change in the practical experience of social media should occur. This should be experienced by the LAMA by all stakeholders within the museum as a system or a network of people. These stakeholders are identified in Chapter 2 as governing bodies, paid staff, and volunteers. In the new approaches to social media, as identified in Chapter 5 and 6, this could also include communities, as these are active participants in the shaping of a local museums' aims.

The MUSM framework's steps for implementation present a way to realign the definition of aims and objectives for social media use in order that they might focus on communities and individuals across multiple communities. The stages for planning are:

1. Aims and objectives
2. Audit and review
3. Assess and inspire
4. Plan and test

These stages reflect Kolb's cycle as illustrated in figure 31 above. The stages should all occur, and the order should be sequential in all instances of implementation of the framework. In some cases however, emphasis will be given to some stages over others. This will be based on the needs particular to a museum. For instance, projects may give precedence to planning and testing in combination with audit and review over a focus on evaluating and inspiring organisational change. In order to clarify this use, the stages have accompanying key activities that are suggested for all instance of framework use. These are outlined below:

1. Aims and objectives – Implement against strategic needs
2. Audit and review – Reflect on experiences
3. Assess and inspire – Increase awareness through storytelling
4. Plan and test – Casual personal experimentation

The stages are described in detail in the first part of the booklet. As advised by Thomas, the wording in the booklet attempts to avoid using vocabulary that is tied to progress (1999: 202-203). For example, words like 'users' are avoided, in preference of terms such as 'people'.

8.9.1 Aims and objectives – Implement against strategic needs

This initial stage is concerned with identification of the scope of the intended social media use. It is envisaged that the majority of MUSM framework use will focus on project-based planning, as this is the popular mode of working in the sector. However, the framework is also suitable for organisation-wide planning. This first stage will enable framework users to identify the initial anticipated reach. This process involves the identification of stakeholders, aims, and objectives. The aims and objectives should be measurable against conventional museums sector methods, such as the ACE's self-evaluation framework, *Inspiring Learning for All* (2014d). This uses indicators grouped under Generic Learning Outcomes (GLOs) and Generic Social Outcomes (GSOs) (Edwards, *et al.*, 2014). Aims should also be developed in line with the organisation's overarching strategic directions in order that the objectives match to mission-aligned aims.

This stage involves the identification of stakeholders as this was a key outcome from the research at HCT. This process can be based on the UK Government Office of the Third Sector Social Return on Investment (ROI) guide (Society Media, 2009). This guide is established within the third sector and has much to offer local museums as the major principles align to the needs of the local museum specifically over other types of museums. The UK Government's endorsement of this particular framework makes it a suitable scaffold on which to pin the design of aims and objectives for this stage. The principles in the Social ROI guide are to:

- involve stakeholders;
- understand what changes;
- value the things that matter;
- only include what is material;
- not over-claim;
- be transparent;
- verify the result (*ibid.*: 9).

In addition to these principles, the use of social media brings some complexity to aims and objectives setting as plans should necessarily build in a high degree of flexibility and responsiveness. In the case of defining stakeholders, this should overcome the current focus on pre-defined categories of audience and could instead build iteratively throughout the action. The stakeholders should be self-declaring and plans should acknowledge that they can occur at multiple stages in the process. Different points of contact will result in different associations by

different individuals. As a result of this complexity, the principles are amended to include the caveat *at all points of the process* after each of the bullet points above.

8.9.2 Audit and review – Reflect on experiences

This stage concerns the assessment of existing use of social media for the area of focus being explored. The initial research at HCT highlighted the lack of awareness of individually implemented social media accounts. Reviewing current practice will improve future implementations of social media by aligning efforts. The nature of social media is that it is personally driven. In addition to this, there is very little training available for the strategic implementation of social media. The use of social media is supported within the sector, but not the strategic planning of adoption of tools. This can lead to social media in organisations being driven by ambassadors who use particular tools in a personal capacity and choose to create additional work-based accounts. This approach could lead to deterministic use of social media, where professional staff are communicating with existing personal or individually related professional networks rather than focusing on organisational objectives for account use.

It is not unusual for museums to apply existing frameworks to social media-based components of activities. This can be problematic as translation of an analogue framework to the Web can fail to acknowledge the affordances of the Web that were outlined in Chapter 4 of this thesis. The methodologies outlined in Kozinet's guide to carrying out ethnographic research online, *Netnography* (2010), applies ethnographic methods in an online context. Kozinets' work is popular in business research and in the discipline of sociology for the analysis of online experience (Langer & Beckman, 2005; Nelson & Otnes, 2005; Sandlin, 2007; Xun & Reynolds, 2010; Mkono, 2011).

However, in the instance of social media, the blending of real-world and online means that responses to social media cannot be considered to be cause and effect in the same way that observation occurs in an off-line context. For instance, a user of Facebook could be simultaneously taking part in a conversation in a social setting in the off-line world. This blending of experience and need to incorporate pluralism is not incorporated within Kozinets' methodology, and serves as an illustration of the difficulties in applying evaluation methods to social media experience.

This stage uses reflection to contribute to the alignment of social media implementation to the needs of all of the actors in the local museum as identified in Chapter 2 and 3. Governing bodies,

funding bodies, paid staff, volunteers, and communities made up of individuals could all be included in this process of reflection. Forms of evidence could be identified that can support this stage. The Paul Hamlyn Foundation Special Initiative, *Our Museum*, has resulted in an evaluation framework that includes an outline for types of evidence that can make up the evaluation of projects which aim to include communities as active partners in museums work (Moriarty, *et al.*, 2014: 6-7). The types of evidence are described in table 14 overleaf.

The *Our Museum* framework does not explicitly consider the impact of technology on indicators or evaluation. For the purposes of the MUSM framework, the indicators are enhanced. Table 14 overleaf maps the contribution that social media can make to the types of evidence from Moriarty *et al.*'s evaluation framework (*op cit.*). Potential issues to consider are highlighted. These are based on the findings from Chapter 4.

Evidence type no.	Type of evidence	Example	Relevance for LAMA MUSM context	Impact of use of social media on evidence type
Type 1	Known and easily shared	An annual report that uses statistical and written evidence that already is collected for other purposes.	Somewhat relevant	Google Analytics or built in analytics tools can be used to provide quantitative figures regarding impact. These figures will only provide a partial view onto any social media activities.
Type 2	Known but not always shared or written down	Known evidence from discussions in meetings, this can be gathered through questionnaires asking specific questions about experiences.	Relevant	Surveys can be sent to social media user through requesting participation in research. This is unlikely to have high response rates. Alternatively, questions can be asked directly to users within social media platforms and tools. This requires that museum representatives are using social media at the same time as the visitors to the site. This may require out of hours working.
Type 3	Emergent or avoided	Gained through reflection, this can be gathered by asking specific questions or through non-verbal research such as observation.	Quite relevant	Responses to questions on social media can be collected and analysed. Significant resource in the form of time is required to respond to individual communication. There is little advice available for the asynchronous or real-time staging of focus groups within social media. Within social media tools and platforms, observation can be restricted by timeliness of activities. Real-time observation is recommended as many platforms have limited options for re-locating time-bound content.
Type 4	Unknown discoveries	Issues/actions not planned, this can be gathered through ongoing sharing of reflective journals.	Highly relevant	Unanticipated actions are difficult to track within social media. User accounts are highly idiosyncratic in nature, as is the use of tools and platforms by individuals. Prediction of actions is therefore problematic. Social media encourages reflexivity. However, personal reflection resulting from engagement with a museum through social media may not be available to the organisation in many cases.

Table 14 – Relevance of the types of evidence for the context of MUSM framework use by local museums and issues associated with social media use relating to evidence types. Types of evidence suitable for museums participative design project. The types of evidence and examples (columns 1 to 2) are derived from Moriarty et al. (2014: 6-7).

8.9.3 Assess and inspire – Increase awareness through storytelling

Evaluation of activities carried out within social media tools and platforms is problematic for all types of projects. There are frameworks already in use within the museums sector that aim to provide museums with guidance on evaluating the impact of interactions through social media. The MUSM framework recommends methodologies and aspects of methodologies that may be used to report activities within social media in the local museums context.

8.9.4 Plan and test – Casual personal experimentation

This stage focuses on the importance of planning social media use within activities before the activities are carried out. This is essential for most social media tools and platforms as an individual's experience will differ from organisational use, and this was seen in the analysis at HCT. In Facebook for instance, a page used by an organisation will result in a different user experience for an administrator than that of visitors to the page. A lack of understanding of the differences between experiences of content can result in disparities between planning and implementation.

In order to improve the use of the Web, plans for interaction online could incorporate an approach that is built on experience rather than on content. The necessary components for this are identified by DeLanda as: ad hoc grouping, living by existing beyond the grouping, uneven topography, no central governance, and many types of actants (2006: 18-19). For local museums, the need to avoid central governance is the most challenging, and the solutions in Chapter 7 have explored ways in which this can work in an organisational context.

Central to the problems in improving advocacy in social media use in local museums is work on the lack of focus on social and political outcomes of ICT enabled public sector reforms (Cordella & Bonina, 2012). This suggests that the uptake of new ICT solutions should recognise the complexity of adoption (*ibid.*: 513). This complexity is in opposition to the need within local government for universal strategies for ICT use (King, 2007), which are currently also being applied in the case of social media implementation in local museums.

As part of the design for this stage, an evaluation of methodologies for measuring impact of social media activities were reviewed as a report for HCT to accompany the MUSM booklet. This is included in Appendix Y.

8.10 Tasks to ensure context-dependent planning

For each planning stage, tasks are outlined that encourage users of the framework to consider the steps from a context-specific perspective. This is because implementation of the MUSM framework relies on personal uptake, by individuals who will act as ambassadors for the approaches in the framework. Fleck advises that the implementation process takes the following form:

“successful implementation requires [author’s own emphasis] generic technology knowledge + local practical knowledge” (1999: 246)

In order then to synthesise the technology knowledge contained within the framework with local, context-specific knowledge, the tasks will enable individuals using the booklet to combine their own personal experience of organisational practice and of the Web with the guidance in the framework.

8.11 Ideas for implementation

The potential impacts and areas of focus are explored in further detail in the second half of the booklet in four ideas for implementation. These pages aim to provide context for the framework. They are suggested ways forward for LAMAs.

The ideas for implementation in the booklet are derived from research presented throughout this thesis, and are designed to support the major theoretical framework that is presented in its pages. Within the museums sector, examples of practice are believed to increase awareness of trends and new opportunities (Bennett, 1995; Knell, *et al.*, 2011; Marty, *et al.*, 2013; McCall & Gray, 2014). This approach is supported by national-level professional bodies, such as the MA and the CT (Dawson, 2013; Museum Practice, 2015). The ideas for implementation focus on case studies, as this is a popular medium within governing bodies for museums for the presentation of practical suggestions for change (Happy Museum Project, 2014; Museum Practice, 2014). The case studies are a mechanism for exposing users of the framework to best practice in social media use in order to identify components for reuse in their own context-specific museum setting.

Four sections describe a case study through the lens of one of the LOCCol approaches proposed in Chapter 7. These are presented in a way that an organisation can adapt in order to implement the

framework within their own specific context. Each approach is included in the booklet as a three part editorial which comprises:

- *Aims of the approach*
 - The general context of the approach is introduced, alongside aims. This provides more background to the specific areas of focus from the framework.
- *Areas of impact*
 - The potential objectives of the approach are outlined in relation to the needs of LAMAs and the communities that are served by LAMAs. This builds on the potential impacts from the framework.
- *Case study*
 - A relevant case study from the research is presented. The relevance of the case study to the approach and to the themes from the framework are discussed. Practical advice is provided for context-specific activities derived from the case study that LAMAs may wish to investigate.

8.12 Final booklet

The following pages contain the proofs of the booklet in its final form, as figure 32. A high resolution version of the booklet can be downloaded from the companion website as a CC licensed PDF.



1

***Museums Use Social Media:
A framework for strategically embedding
innovative use of social media into practice***

www.localmuseums.org

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Using this booklet

3

The MUSM framework is a response to the need to engage more effectively and creatively with social media. Current use of social media tends to attempt to replicate real world activities through web-based tools and platforms. However, the potential of social media for local museums lies in the possibility of designing aims and objectives which are more closely aligned with the needs of communities and the potential for experimentation with new kinds of museum experience.

This framework provides a guide to the use of social media for local museums to more fully express curatorial practice online and to build advocacy. This booklet outlines a new approach to social media that acknowledges the affordances and limitations of social media and suggests ways to avoid many of the pitfalls currently associated with social media use.

This booklet has been designed to support the adoption of social media within local government managed museums that care for archaeological archives. However, MUSM framework can be used by any collecting organisation wishing to design and implement a social media strategy or specific social media activities that are strategically aligned to organisational aims.

The MUSM framework supports the development of aims and objectives for social media projects that make use of the network possibilities of social media. The framework aims to improve the relationship between the institution and the communities that it serves. This is achieved by providing areas of focus for realignment of activities towards individuals and communities.

The steps below are described in detail within this booklet and can be used as a workflow for designing social media activities.

Steps to follow



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4

Local museums can use the web

Engaging with the web, and with social media in particular, can have a substantial impact on people's attitudes to local museums. Social media can contribute to the development of the role of local museums in society today. This in turn can contribute to securing the future of smaller local museums by improving advocacy generally and improving future availability of resources.

The form of the web is constantly changing. As people produce, edit and link content the structure of the web changes and evolves. Everyday activities associated with social media such as 'liking', 'sharing' or 'tagging' help to refine and give structure to the web's underlying network.

Social media enable people to control their online experience. By joining groups and making friends we are able to choose which content we see and which content is hidden. Creating links and expressing preferences also shapes our view onto the web. However, these actions are also used by social media tools to filter and suggest content in less obvious ways. As part of the personalisation experience, silos between social media platforms and the rest of the web are increasing. Personalisation is therefore reducing experience of difference on the web. This effects opportunities to enrich our social and cultural lives. Despite this, social media represents a significant potential resource for the understanding of contemporary expressions of heritage.

Local museums can shape the web

Increasingly, social media is becoming a tool for the sharing of cultural memory online. Museums and other collecting organisations have only just begun to tackle the huge potential resources represented by social media, but there is currently no clear way forward. Local museums can improve understanding of social media by facilitating meaningful experiences online and by developing ways to make better use of the social functionality of social media. Creating social connections between people and museum collections through the web will lead to social media becoming more open, collaborative, connected and locally engaged.

Local museums are ideally suited to challenge the bias of social media and to provide ways for people to learn how to safely make use of the community building functionality of social media. Social media can support the negotiation of identity online, by enabling playful experience of history and archaeology. This can only occur if local museums provide context for storytelling within social media. This booklet provides guidance on how to implement this within your organisation.

MUSM

The photographs in this booklet were taken at Hampshire Cultural Trust as part of the research for this booklet. Many thanks to the team of volunteers and staff in the archaeology stores for allowing the reuse of these images.

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Archaeological archives in local museums

5

This guide has been written with local museums that care for archaeological archives in mind.

Archaeological archives held in local museums can provide an inspiring way into heritage because they provide a focus for engaging with all facets of humanity, but at a locally grounded level. The nature of the local archaeological archive, with its mixture of artefacts, photographs, maps, reports, and data such as geophysical surveys and finds databases, means that it has potential to make use of the context rich nature of the web.

There are few instances of use of social media to engage with archaeological collections. When heritage organisations do use the social tools and platforms on the web to share collections, it can lead to unanticipated, creative, and often highly personal responses to archaeology.

Personal interactions with artefacts and related materials can be supported by local museums through making use of already existing tools and platforms. Heritage is an essential part of the construction of identity, and the way that heritage can be narrated within social media can be improved by local museums that care for archaeological archives. This is because they have an expertise in the following:

Unique contribution to the web

Local archaeological archives can contribute to the web by providing unique digital content that is not currently being offered by any other kind of organisation online. By adding content to the web, archaeological archives can shape the online landscape and improve the experience of the web generally.

- A** Local museums have an expertise in community-focused working, and this booklet outlines ways for this to be expressed on the web more readily.
- B** Local museums have an expertise in the curation of everyday archives. These are being created with increasing frequency within social networking platforms and social media sharing sites.
- C** Local museums have a long history in dealing with the performance of difficult heritage. They can therefore play a role in supporting the realignment of opinions and identities within social media.

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Who should use this guide?

7

Governing bodies

The introduction to social media will provide context for the support of social media based projects.

Turn to page 12

Governing and funding bodies will also find the stages for planning, particularly the advice on assessment, provide an insight into the challenges currently faced by local museums in the uptake of social media.

Turn to page 22

Communities

Individuals wishing to engage with local museums through social media will find inspiration in the case studies that accompany the ideas for implementation.

These examples of best practice provide views into the kinds of activities that you can expect from local museums that make use of this framework.

Turn to page 26

Paid staff

Staff based in local museums will find the MUSM framework useful as a methodology to work through in order to make better use of social media.

Turn to page 8

The introduction to social media will provide some useful background information about the ways in which we currently use social media in our everyday lives.

Turn to page 10

Volunteers

Volunteers will find the part of this booklet that discusses potential ideas for implementation for local museums particularly useful.

The ideas for implementation will introduce the major approaches that local museums can adopt in order to build participatory working practice into projects that use social media.

Turn to page 26

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MUSM FRAMEWORK

This framework is based on employing universal design principles, rather than universal solutions



Impacts

The impacts are the objectives for your project. The potential impacts underpin the framework. These are key impacts and should be considered for at all stages and when focusing on a particular area.



Areas of focus

The areas of focus are aims for your project that relate to the objectives. They provide points of entry into the framework. They will help you to align your social media plan to your institutional goals.

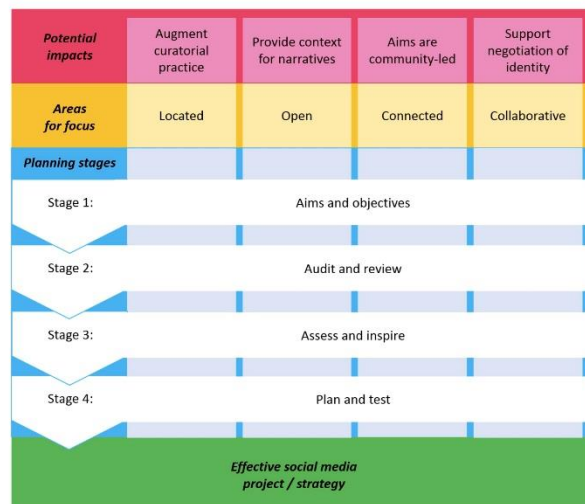


Planning stages

The stages provide a way to engage with the areas of focus through strategically aligned actions.



Museums Use Social Media framework



Download the framework for reuse from the companion website:

10

STEP 1: UNDERSTANDING SOCIAL MEDIA

The underlying characteristics of social media impact on all activities online

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Social media and the web

11

In this booklet, you will find a re-characterisation of social media that is based on the realities of the web, rather than on popular ideas. This more nuanced understanding of social media will enable you to make use of social media in a more effective manner.

Social media is just one interface that we can use to engage with the web. As an interface, it has particular characteristics that are not immediately apparent. This guide outlines the underlying characteristics of social media that impact on activities. Acknowledging the positive and negative features of social media will improve outcomes from planned and spontaneous activities.

Social media can support growth on an individual, local, & societal level

What you need to know about social media

- A** Social media is driven by individual behaviours, and therefore prioritises individual experience over social experience. This means that it is increasingly difficult to be creative with identity in social media.
- B** Social structures that exist in the real world are translated onto the online world and may not be more inclusive. Studies have also shown that many social media tools are structured in such a way that a minority control the experience for the majority.
- C** Social media filters content to present increasingly personalised views of the web and of the world. But this filtering can prevent people from experiencing new or challenging content.

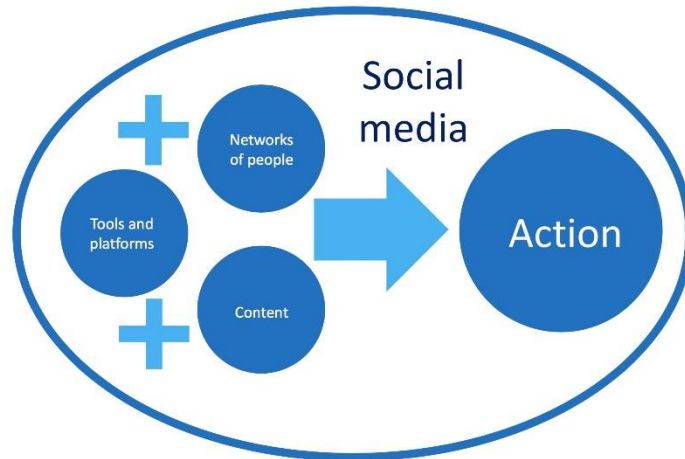
Unlocking the potential of social media

- A** Social media can help individuals to build social capital, by supporting societal diversity and breaking down real world boundaries. This is because it can act as a broker of communication between previously unconnected individuals.
- B** Social media can foster community development. This can be achieved by supporting the staging of actions that foster knowledge building, and in this way social media can help to develop societal diversity.
- C** Social media can act as a platform for experience of difference to improve awareness of societal concerns. This is because it can facilitate positive experiences of difference by building knowledge whilst acknowledging individual circumstance.

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Components of social media

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13

The 3 components of social media

1

Networks of people

Social media can only occur when people make connections between digital content.

This can happen synchronously or over a longer period of time. They can be formed to fulfil specific goals or can be established around an interest or topic. People can communicate directly or indirectly.

2

Content

Social media is made up of digital content. This content can be especially made by users of social media tools and platforms, or can be created elsewhere and reused.

Social media promotes content that is organised around interests and topics.

3

Tools and platforms

Social media comprises of many different tools and platforms. Connections can be made between separate platforms.

Most social media tools and platforms are proprietary. This means that they often have objectives that are contradictory to the objectives of the users. There is little open sharing of digital content between platforms, and this can result in silos of content.

**Connections
between the
components
lead to
ACTION**

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STEP 2: IMPACTS

*What impact can social media have
at your organisation?*

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Social media can...

Enable negotiation of identity

Identities are changeable and depend upon social context. The web provides a social space to experiment with new forms of identity. This may include the development of new interests or making new social connections.

We can use social media to provide online spaces within which individual and community identities can be negotiated.

More on page 28



Augment curatorial practice

Advancements in web publication mean that increasingly complex representations of objects can be shared online and connections between concepts can be expressed.

Social media offers new ways to co-create the staging and interpretation of collections. Central to this is the potential for collaboratively constructed narratives that acknowledge multiple perspectives and points of view.

More on page 30

Ensure aims are community-led

The web has the potential to provide a place where experiences can be shared in order to develop a sense of belonging and of community. Social media can provide a forum for community voices.

Local museums have an expertise in managing public discourse and are experts in providing views into difference. They can therefore contribute to improving the experience and structure of online communities built within social media.

More on page 36

Provide context beyond meta-narratives

Heritage is a dynamic concept and is constantly changing. Through social media, local museums can provide contextual information about historical and archaeological events and objects. These can act as a catalyst for personal stories to be told.

Personal narratives can challenge conventional historical interpretations and in so doing can increase the relevance of museum collections to personal and community meaning-making.

More on page 34

Visit the companion website for more background on these impacts:

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STEP 3: AREAS OF FOCUS

*Four aims that will focus attention
and inspire plans for change*

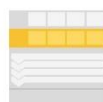
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Aiming towards a...

Collaborative museum

Collaborative museums are based on a commitment to enabling people to have experiences of heritage that have social connections at their heart. Through providing multiple spaces within which to engage with collections, local museums can open up the digitisation, interpretation, and sharing process of curation to enable collaborative identification of new information about collections. Social media can be used to facilitate these social experiences so that multiple, overlapping interpretations of collections can be supported.



Located museum

Your local museum need not be your closest museum. Located museums act as a conduit through which to negotiate individual and community identity. They focus on supporting experiences online that are interest rather than audience based. The located museum acknowledges that identity can exist across multiple online communities and throughout several changing affiliations. Social media can be used to facilitate personal interactions that debunk the myth of 'the public' and instead engage on a personal level with playful identity building.

Connected museum

Connected museums support the development of alternative historical narratives. The connected museum provides opportunities for people to contextualise objects online. Engaging with museums through social media provides a space online within which to build and strengthen community identity. Online engagement with local museum collections allows personal interaction that is unbounded by geographically constituted ideas of local heritage. Personal and public narratives can add multiple levels of interpretation to collections.

Open museum

Open museums encourage creative reuse of collections within new contexts in order to enrich the impact of heritage on new participants. The open museum incorporates transparency into practice as well as committing to openness for digital collections. From this, knowledge building is enhanced with new content from collections. Social media supports experiences of collections away from the museum building by providing high quality reusable digital content so that artefacts can be experienced in new settings.

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STEP 4: PLANNING STAGES

*Stages for planning the use of
social media at your organisation*

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Planning stages

Stage 4 Plan & test

Planning social media use should incorporate from the outset preparations to end or expand activities once implemented. Testing ideas through existing social media accounts can reduce risk and improve uptake.

By testing tools and platforms in a personal capacity, skills can be developed that will improve impact of activities as well as supporting identification of appropriate tools.

More on page 23



Stage 1 Aims & objectives

The development of aims for the use of social media must be based in real-world needs of the organisation and of the communities with which the organisation has a current or potential connection.

Objectives for social media use should be measurable and tied closely to the overarching aims. The particular social media tool(s) being used should not shape the identification of objectives.

More on page 20

Stage 3 Assess & inspire

Once your activity is underway, ongoing assessment will enable social media use to be made sustainable and will ensure maximum impact.

Identifying ambassadors of particular approaches or tools can inspire creative use of social media inside and outside of the organisation. Telling stories about current use is a way to build advocacy around social media.

More on page 22

Stage 2 Audit & review

In order to discover new ways to incorporate social media into practice, reviews of pre-existing social media activities can help to provide insights into what might work in the future.

In addition to this, reviewing experiences within the organisation so far will improve the sustainability and scalability of activities.

More on page 21

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Stage 1 – Aims and objectives

It is tempting when setting aims and objectives for use of social media to first identify specific tools or platforms. However, by choosing tools before designing objectives, the possibilities have been constrained before you have creatively engaged with the potential of the technology. The aims for social media use should be derived from your organisation's overarching strategic aims.

Task 1: Take a major aim for your institution and use this as the underpinning theme that you return to throughout the planning stages. You can also use the potential impacts on page 13 to inspire your aims as these are specifically designed to be achievable through use of social media. From the aim or aims, you must now set objectives. These should be Social Media SMART (Significant, Meaningful, Achievable, Relevant, Tangible). In order to design these, use the principles from a recognised guide such as the UK Government's 2009 Social Return on Investment guide. At all points in planning, you should aim to consider the following in order to make sure that your objectives are Social Media SMART. You can achieve this by:

1. Involving stakeholders in the design of your objectives
2. Ensuring from the outset that you will understand what changes
3. Valuing the things that matter in your objectives
4. Including material impacts that are meaningful
5. Avoiding over-claiming by being modest in your plans
6. Maintaining transparency in the planning and the implementation
7. Verifying results by sharing aims and objectives with participants.

When planning activities within social media, there can be a tendency to focus on the tools or platforms being used, or on the kinds of results that are required. Planning for evaluation's sake can lead to social media use that is restricted by objectives that prevent evolution of the approach being used. As social media is based on social experience, plans for implementation must incorporate flexibility from the outset.

Task 2: As a first step in objective setting, think about the components of social media from pages 10 and 11. In order to achieve action within social media, it has to be made up of tools and platforms, networks of people, and digital content. Take each component in turn and decide what you are going to bring to each one. For example, with networks of people, will you be supporting building relationships between people in a group? Or are you hoping to communicate with people individually. With digital content, do you want to find content that already exists and link it to your collections? Or would you like to have content created from the collections?

Use of social media may lead to the identification of new aims, and this will be discussed in a later stage in this booklet.

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Stage 2 – Audit and review

Before using social media for a particular project, it is important to build a picture of existing use within your organisation. This will give you a good idea of what has succeeded and will also give you an insight into the digital skills within your team.

Task 1: Review the use of social media by your organisation to date. Are there people that you have been particularly successful at connecting with? If so, has this been anticipated?

Task 2: Carry out small scale evaluation and collect feedback from people who are already connecting with your organisation through social media. This will help you to better understand what your institutional strengths are. What have people enjoyed? What content have they valued? What have they not reacted to?

Task 3: Dig a bit deeper to find out why people connect with your organisation online. You may be surprised at what you find out. Do people connect with you in a platform because of the nature of your collections, or because of the way that you present them?

Social media tools and platforms are built around the personalisation of experiences for individuals. They work well for personal use because they are structured to improve over time as a tool is used. From an organisational perspective, this means that it is better to implement social media at a personal level. This means that social media requires ambassadors within institutions to improve advocacy through use. It is difficult to promote the use of a particular approach to social media if you do not have any examples of this way of using it.

Task 4: Have a look online at what else is out there and try to join groups or communities that are making use of social media to fulfil similar aims. This personal experience will improve your planning. For example, if you are considering using social media to improve records for collections, first find a collecting organisation that is doing this and have a go at contributing to their project.

Innovating with social media does not necessarily mean using tools in unexpected ways. The impact of your social media use will improve with experience. Begin with quite modest goals and aim to support activities that you are already carrying out in the real world. In order to innovate, you must make time for reflection in your use of social media. Write this into your planning from the beginning. How will you reflect on the use of social media?

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Stage 3 – Assess and inspire

It is important when planning the use of social media to decide how you will ensure awareness of what you are doing across the institution. Telling stories about what you have been doing will increase advocacy within your organisation and this will improve the impact of social media use more generally. This is because the networks of people that drive social media activity are made up of your audiences but also of people from your organisation. The more people from your organisation that get involved with the activity, the better the experience will be for everyone.

Task 1: Use the circle on this page to think about the kind of experience that you would like to facilitate in social media. Within social media, the digital content that facilitates an experience of museum collections. Digital content provides the context for an experience in social media.

What kind of context would you like to support in the social media activity you are planning? Would you like to have an interactive experience where people build new context for the collections through their experience with social media? For example, asking people to reminisce about experiences relating to objects in the collection. Or would you like to provide some new context to people's lives by sharing something from the collections? For example, providing high-quality images of archival materials for creative reuse.

Task 2: Inspiring people in your institution will improve the experience of the social media activity you are planning. But it is also important to inspire people outside of your institution by telling them what you are doing and involving them.

Consider sharing your reflections on the experience as you plan and implement it. This will contribute to the authenticity of the activity that you are planning as transparency is a key motivator in social media use.

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Stage 4 – Plan and test

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An organisational presence on social media can be built in stages. Social media are built on personal interactions and so it does not matter if in the beginning you are working alone to set up an activity. Plan from the outset to start small and build from there. However, bear in mind that social media supports longer-term relationship building as well as short-term activities and so you may find that people's involvement in activities will not end within the anticipated period.

Task 1: Plan the evaluation of your activity to occur within a set time, but try to design activities that you are able to continue supporting in a less intensive capacity after the initial phase has ended. For example, after a temporary exhibition you can continue to communicate with participants in an activity by encouraging them from the outset to follow centrally supported social media accounts that will continue to exist after the exhibition's accounts are closed.

Task 2: Evaluation can occur through testing, but inspiring people to engage with your social media activities also requires careful planning. When planning the social media activity, one major consideration is the level of interaction that will be required from participants to achieve the objectives which have been set.

Task 3: Consider different ways in which you might make your activity more digitally inclusive. Lower barriers to participation by ensuring that high-level digital skills are not required in order to take part. All activities should be multi-layered so that they can be experienced in some capacity by all people.

Task 4: Activities should consider the different ways in which people use social media and should take account of different use scenarios. For example, the attention that a person can pay to an activity at home using a PC will differ greatly to someone sat on the bus using a mobile phone to access the web. Planning for this will improve the experience for all.

Task 5: Social media activities will build iteratively. You should plan to amend activities that you have designed after implementation to reflect lessons learned. As soon as you begin your activity, you can also begin to develop new aims and objectives based on initial reactions to the activities. Once you have planned and tested your activities, you can return to the first stage and refresh aims and objectives. Your next activities will build on existing ones, and so make sure that you keep a record of your planning. Social media can be an excellent tool with which to track this process!

For more advice visit the companion website:

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Objects in the archaeology stores are prepared by volunteers for a forthcoming exhibition.
Photographed as part of the Day of Archaeology, Hampshire Cultural Trust



Tudor ceramics found during partnership project, community-based excavations at Basing House,
Hampshire Cultural Trust and University of Southampton

SOME IDEAS FOR IMPLEMENTATION

Four research-based innovations in practice

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The following four ideas suggest ways in which to engage with social media. These approaches have specific aims that support the work of local museums, and are intended to provide inspiration for paid staff and volunteers working to extend the reach of their organisation.

Each idea is accompanied by a description of the key aims and expected areas of impact. Case studies provide specific examples of the ways in which this approach could be implemented at a local museum.

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Towards the located museum: Building co-curation into collections interpretation

Aims of approach

The located museum focuses on the needs of communities that have a connection to the institution, online as well as off-line. These connections are community driven rather than being driven by pre-defined aims that are aligned to governing bodies.

Museums that engage with social media in this way must be flexible in their aims and objectives, and be prepared to change direction partway through engagement if community needs change.

Areas of impact

Working in this way can be problematic if using pre-defined aims that have not been developed through consultation with existing communities. Identity online is expressed through activity and can change rapidly. Identity is performed through actions such as sharing content or expressing preferences of other people's content. Despite the seemingly social nature of these actions, they are not necessarily contributing to the creation of a sense of community, or leading to experiences of difference which might improve cultural understanding.

The mechanics of many social media tools and platforms mean that through increased emphasis on personalisation, experience of difference is reduced. Local museums are experienced in identifying cultural experience in the real world, and can contribute to the development of new ways to support the experience of difference online. This can occur through recognising and distributing contextual information through social media that enriches people's news feeds. Local museums can also provide ways for individuals to share new knowledge and engage with others through comparing other people's experiences of the world with their own.

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Building co-curation into collections interpretation

Case study:

Hampshire Cultural Trust, Day of Archaeology

Since 2011 an annual blogging event has been run to encourage archaeologists worldwide to record their experience of a single day. The event aims to provide an overview of the varied role of an archaeologist, as well as to build an online community of archaeologists.

In 2015, Hampshire Cultural Trust worked with a researcher to produce a series of posts for the Day of Archaeology. Hampshire Cultural Trust has an extensive archaeological collections store in Winchester. Several volunteers work every Thursday on the collections held in storage. They carry out a multitude of tasks, such as digitising fieldwork archives and preparing objects for display in one of the Trust's museums.

The Day of Archaeology 2015 provided an opportunity to tell the world about the varied role of a volunteer at Hampshire Cultural Trust. It also presented an opportunity to involve volunteers in an exercise that demonstrated the process for creating and sharing digital content on a blog.

Volunteers who took part were excited to show family and friends what they were contributing to the organisation. The organisation benefited from a series of articles on a well-established website that illustrated the complexity of the methods for caring for the county's archaeological collections.

By harnessing the publicity and using the infrastructure of an already existing social media based event, Hampshire Cultural Trust created a public facing record of the relationship between the organisation and its volunteers.

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Towards the open museum: Encouraging creative reuse of collections

Aims of approach

This area of focus requires that local museums openly communicate and incorporate social experiences into processes that are occurring in relation to care and interpretation of collections. The open museum can also attempt to open up the digital content that exists from that work in order to enable reuse in new contexts. Letting go of control over content can lead to unanticipated reuse of collections by different contributors, extending the reach of the collections away from the museum building. Enabling new users to interpret collections can lead to new perspectives into collections and this in turn can improve advocacy in the work of the organisation.

Areas of impact

Through opening up curatorial processes and communicating more transparently about decision-making processes in the organisation, local museums can develop new ways to share their curatorial expertise whilst simultaneously acknowledging the significance of personal responses to collections. Working in this way provides an antidote to the increasing use of 'curation' to describe collecting and sharing digital content online.

It is only through reporting more candidly about the skills that curators use on a daily basis that local museums will be able to contribute to the debate about the changing role of the expert in the museum.

Using social media, local museums can transform artefacts to social digital objects on the web, by allowing for flexibility of context, enabling people to project their own interpretations onto collections that are individually motivated. Creating and sharing multi-purpose digital content will enable this.

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Encouraging creative reuse of collections

Case study:

Changing digitisation at Yorkshire Museum

One potential way to implement openness in your organisation can be seen at York Museums Trust.

A small permanent photographic studio was set up within Yorkshire Museum so that curators could easily photograph and upload images of artefacts.

By providing a quick and easy way to photograph small objects from the collections, a knock-on effect was observed on practice relating to sharing collections digitally and online.

Photographing artefacts in this way meant that the images could be licensed under Creative Commons Attribution-ShareAlike license as they were added to the collections database. This kind of licensing meant that images could be reused.

The photographic studio was not an obvious response to the open agenda, but it resulted in the Curator of Numismatics digitising and sharing online high numbers of artefacts.

The York Museums Trust images that have been shared under open license through the online collections database have been re-used for a variety of purposes, including illustrating a Japanese history textbook.

A practical change to the working environment at Yorkshire Museum has responded to the need for digital images of objects that could be easily licensed as part of the open agenda at the organisation.

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Encouraging creative reuse of collections

Case study:

Wikipedian in Residence, York Museums Trust

The Wikipedian in Residence scheme is organised by Wikimedia UK. This is the organisation behind Wikipedia. Some funding is available for heritage organisations that wish to host a Wikipedian at their institution for a few weeks.

Wikipedians are people who add and improve content to Wikipedia and to Wikimedia Commons. Wikimedia Commons is a site that contains collections of images, video and audio content that can be used freely. York Museums Trust won funding to host a Wikipedian in Residence in 2013.

The Wikipedian trained staff and volunteers in the use of Wikipedia, and helped the organisation to add images of objects from the collections to Wikimedia Commons.

The Wikipedian organised events, Editathons, which provided guidance for participants on how to become Wikipedians. These events used the York Museums Trust's collections. At an event, a new article was added to Wikipedia that introduced a Victorian painter represented in the collections. The article was featured on the front page of Wikipedia the following day. In a few hours, the article and the images of paintings in the York Art Gallery collections in the article were viewed over 3,500 times.

By committing to finding new ways to encourage people to use digital content from the collections, York Museums Trust has contributed new knowledge to the web, and at the same time has stimulated new audiences to engage with the collections.

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Hampshire Cultural Trust volunteers take part in the Day of Archaeology blogging event

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Towards the connected museum: Identifying new relevance for collections

Aims of approach

The connected museum aims to make connections between community concerns and local collections. These connections are made through community-led activities rather than by identifying global themes or tying collections to already existing narratives.

Instead focus is shifted onto supporting personal responses to collections rather than attempting to interpret collections using established national and global themes.

Areas of impact

Local museums can create connections between the world and their collections through social media by focusing on how people engage with objects and by providing new ways to re-contextualise objects digitally online.

In order to do this, emphasis on the record of an object that mirrors the catalogue must be replaced by emphasis on the potential new context of an object once it is added to the web.

Creating digital representations of artefacts that are visually or aurally stimulating can encourage new forms of engagement, and facilitate social sharing of objects through social media.

High quality images, videos, 3D models, or audio recordings of artefacts can be shared online under licenses that encourage remixing and also distributing content in new forms in order to inspire creative reuse.

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Identifying new relevance for collections

Case study:

Remember Me? United States Holocaust Memorial Museum

The United States Holocaust Museum has been using a project called *Remember Me?* to identify people who were displaced due to persecution in World War Two. The project asks people to provide information about any individuals that they recognise from photographs.

The photographs are shared on a website, and staff at the museum use Facebook and a blog to provide regular updates on the research that is taking place.

During the project, a historian at the museum was contacted by a man in Pakistan who had seen a face of a missing person on the *Remember Me?* website. The image had reminded him of his son. He left a comment on the website, via Facebook to tell his story.

Through reading on the blog and on the Facebook page about the identifications, which are openly discussed through the news updates, he had learnt about the process of tracing missing people that the museum was carrying out. The man contacted the museum team and asked for information about how to locate relatives using web-based databases. Then he had then used this information to teach people in his village how to carry out genealogical research. This was an unanticipated, yet highly personal connection with the collections.

By openly sharing the journey that curators take during the process of research into collections, the museum encouraged individuals to develop research skills and to share those skills with others.

Want more advice? Visit the companion website:

www.localmuseums.org

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Towards the collaborative museum: Supporting multiple narratives for collections

Aims of approach

The collaborative museum actively encourages community members to become involved in the creation of digital content provided by the museum. Special interest groups and volunteers can develop digital skills through becoming involved in the digitisation and sharing of collections.

By encouraging external parties to contribute content to social media that is being used by a local museum, valuing of contributions can be expressed by incorporating new content into interpretation online.

Areas of impact

This kind of activity can lead to improved connections with groups that are also creating information related to collections that may not currently be included in museum records. This could lead to collaborative discovery of information and could contribute to knowledge surrounding collections.

Including volunteers and interest groups in the digitisation of collections, as well as in sharing those collections online, can improve digital skills amongst volunteers as well as supporting skills development within the organisation. Social media can support this.

Enabling volunteers to engage with the collections through sharing information about them through social media could build a better overview of the collections for the institution and could improve how the organisation tracks and evaluates reuse of content.

www.localmuseums.org

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Supporting multiple narratives for collections

Case study:

Reciprocal Research Network, Museum of Anthropology

The Museum of Anthropology in British Columbia has worked with researchers and curators globally to create the Reciprocal Research Network. The Reciprocal Research Network aims to share information about digitised objects relating to Northwest Coastal First Nations communities. It does this through a custom designed online collaborative research tool. This takes the form of a website.

The website provides private and public spaces within which individuals can interact with digital versions of artefacts in discussions and by sharing content. This can add to knowledge about objects held in several museums around the world.

The project is aiming to provide ways for people to tell stories about objects, as well as correcting existing information. The stories added to artefact records may also improve the ways that particular items are displayed and cared for.

For example, a mask held in the Burke Museum in Seattle was added to the database. Despite being a relatively recent addition to the museums' collection, the record for the object was incorrect. The museum was not aware of this. The person who had made the mask corrected the name of the object on the website and this led to the catalogue being amended. This may not have occurred if the data had not been shared in a secure online space.

By enabling individual interactions with objects in an website that provides differing levels of privacy, the Museum of Anthropology has provided a safe space in which community needs can be considered alongside the aims of museums.

Want more advice? Visit the companion website:

www.localmuseums.org



The companion website to this booklet can be found at:

www.localmuseums.org

Here you will find links to further case studies and suggested reading. Inspirational instances of social media use are listed under the themes from the MUSM framework.

This booklet is a result of Research Council UK funded PhD research carried out in the Web Science Doctoral Training Centre and the Department of Archaeology, University of Southampton. As such has been released under *Creative Commons Attribution-NonCommercial 4.0 International License*.

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MUSM
Museums Use
Social Media
framework

www.localmuseums.org

Figure 32 – MUSM booklet

8.13 Conclusions

Initial reactions to the MUSM framework by HCT have been positive. Ongoing evaluation is taking place through online surveying of users of the booklet and companion website, with an intention to review the feedback in autumn 2016. In the conclusion to this thesis (Chapter 9), the findings of this research will be discussed within the context of the overarching research questions introduced in Chapter 1.

Chapter 9: Conclusions

This thesis has examined the reasons why local museums are in a constant state of change and reinvention. As discussed in the earlier chapters of this thesis, this has been seen to have negative consequences for the digital capabilities of local museums, but it has also resulted in a state of preparedness and flexibility that means these types of museums are ideally positioned to innovate in digital technology use. This thesis has addressed the components that are needed in order for this innovation to occur in the instance of the uptake of social media.

The use of social media by local museums can act as a test bed for the future evolution of the Web. The nature of local museums as spaces within which people can negotiate new interpretations of local heritage means that they can directly influence the shaping of the Web. There are three major contributions that local museums can make in the shaping of the Web:

1. influencing and shaping expectations of behaviours online,
2. providing new ways to engage with tools,
3. creating new content that contextualises the online experience.

The three contributions outlined above can occur together, or as separate influences on the Web. This thesis has explored how local museums that care for archaeological archives in England and Wales can implement these three contributions in practice.

In Chapter 6, this thesis outlined how local museums can implement the three contributions above in different ways. Firstly, local museums can work with communities to translate curatorial practice onto the social Web. This can occur through opening up of decision-making processes relating to social media use. The case study of York Museums Trust illustrated how this can occur in practice. In doing this, local museums can support the development of digital skill leading to more informed use of the Web by individuals. Using the specialism of a local museum as a place within which the negotiation of identity can occur, local museums can provide online spaces within which people can engage with digital components from collections. In providing these online spaces, be they Facebook groups or Instagram feeds, local museums are shaping the content of the Web by providing high quality visual and audio content that inspires reuse and engagement with local heritage. They are also supporting the development of new ways to use existing tools. This will inform the development of future functionality.

Secondly, local museums can incorporate community-led aims into current and future online activities. This will improve the design of objectives for the museums, but will also contribute to increasing the staging of local heritage related digital content online. The case study of the United States Holocaust Memorial Museum highlights a way in which sharing information through social media platforms on the Web can lead to the creation of new knowledge about collections, but also the development of new digital skills in an unanticipated real world community. In providing the background information contextualising the research being undertaken, the USHMM also created a new resource for the Web that has been reused in a new context to improve other people's experience of the Internet.

Finally, local museums can contextualise national and global narratives that exist online by providing local responses to those narratives. The case study of the Reciprocal Research Network showed how personal identification with collections and stories can be supported by providing multi-level access to digital collections content online. In doing this, collections knowledge can be built upon, and understanding of community and individual needs by curators can be improved. The case studies indicated that a more informed use of online tools and platforms could lead to a more nuanced sense of the locatedness of collections by staff and visitors to local museums. The findings in Chapter 6 also pointed to the potential of local museums to support the contextualisation of online experiences of information about heritage through the provision of digital content through social media.

Local museums can use social media to improve the expression of curatorial practice online. Social media supports the development of multi-vocal discussions around aims and objectives setting in a way that may be difficult to stage offline, particularly in this age of austerity. This must be closely managed by representatives of local museums to ensure fair participation, and the essential bias of the Web must be acknowledged in any conclusions to activities such as this. The work in this thesis around the potential of museum volunteers' use of social media can mitigate partially against this by using social media to improve the general user landscape of social media. Encouraging the casual use of a closed Facebook group to communicate within the institution can lead to new digital skills amongst volunteers and staff. This can have a positive effect on the use of social media by these individuals more generally.

In Chapter 7, I outlined the ways that social media and the Web more generally can provide a digital scaffold on which local museums can pin local heritage narratives. The nature of the Web as an evolving network made up of connections between content means that it supports the

iterative staging of stories by users. Local museums can engage with this by providing digital content about local narratives, collaboratively constructed with communities of social media users. In doing this, the Web can be used by local museums to create new ways for people to experience local heritage.

Local museums can help us to cope with the increasing amount of information online about local heritage. This can improve the quality and veracity of information online, but more significantly, can prepare people with digital skills required to review the trustworthiness of knowledge gained online. Developing these skills will improve the use of the Web more generally. In this way, local museums can shift the emphasis of activities on the Web from consumption to personal and communal needs.

This thesis has put forward ways for more effective use of social media to aid the re-alignment of institutional practice of local museums in order that it incorporate community voices in interpretation and in decision making more generally.

In turn, a more informed use of social media by local museums has the capacity to recast the role of the local museum in contemporary society as a collaborative, discursive and pluralistic social institution with an integral social function.

There are issues around the prioritisation of social media platforms of pre-defined context over the presentation of the self-online. Local museums can improve this emphasis on the top-down implementation of functionality by facilitating the management of presentation of the self-online by providing information, advice and safe networks within which people can experiment with social Web tools and develop digital skills. In addition to this, the Web can provide a space for people working with local museums to engage with individuals away from the sector-driven requirements of real world activities (see the conclusion for Chapter 6). This is because the Web enables a more organic development of relationships between museums as organisations, museums as collections facilitated by people working in them, and people who have a personally driven interest in a museum.

The Web can be used as a way to move away from the emphasis on making connections between people and objects. Instead, it can provide ways to address issues around community and individual needs. This can be achieved by focusing on the materiality of the actionality of the Web, as opposed to the current focus on the physical make-up of the Web. The beginning chapters of this thesis outline how use of social media can potentially impact negatively on the

reach of activities of local museums, forcing them into narrowing experience of difference online. This particular affordance of the Web can also be used positively by local museums to provide multiple ways into discovery of online content derived from collections. For example, in Chapter 6, I discuss how licensing concerns can prevent local museums from openly sharing images of objects from their collections. However, the increase in hardware and software and social media tools for creating and sharing 2D and 3D digital content created from objects means that it is easier to make new digital versions of artefacts. The Web is providing a way around the issue of negotiating new license terms for existing digital images. Social media is driving much of this need, as place emphasis on creating, sharing, modifying and re-sharing of audio visual digital content.

The Web can directly contribute to positively addressing the crisis of local museums, but the Web must be used in a new way by local museums. This new transformative practice outlined in Chapters 7 and 8 acknowledges the essential affordances of the Web. Local museums have an expertise in enabling discursive experiences in the galleries; the Web can be used to move this relationship building online.

9.1 Contribution of this research

This thesis set out to examine why local museums caring for archaeological archives were struggling to realise the benefits of social media. The research has put forward a methodology through which local museums can use social media to enhance experience of heritage and the facilitation of communities through heritage online. This research has also identified the affordances of the Web as they relate to local museums and this informs a new framework for use of social media. This can be used by local museums to improve the experience of museums through social media which in turn will enable digital skills development. This work also contributes to enabling local museums to augment the shape of the Web itself by improving the design, creation, and sharing of digital content.

This thesis has shown that local museums in the UK are in a period of crisis. Services are being greatly reduced and in some instances local museums are being closed completely (Evans, G., 2012, 2013). The financial security of the twelve year-long 'Renaissance' period has rapidly dissipated and the impact of this new uncertainty is discussed in more detail in Chapter 3 (Harrison, 2002; Culture, Media and Sport Committee, 2010a, 2010b; Evans, G., 2013). The loss of these financial streams alongside the general reduction in funding for local authorities across the

country is resulting in the loss of skills in local museums (ACE, 2011; Nightingale, 2011). Staff redundancies and the closing down of outreach, schools and exhibitions programmes in many local authority managed museums services (Evans, G., 2012, 2013) is in turn is impacting negatively on the capabilities of local museums (MLA, 2011, 2012). The solutions that local museums used to increase engagement figures during Renaissance were seen by many as costly, but they were providing an invaluable service to the users of the museums (Evans, G., 2013). Now that these services have been greatly reduced, local museums need to find alternative ways to engage and develop audiences.

The Web seems to be a low-cost solution for improving engagement, but initial use by local museums has been modelled on real world approaches to audience development. Identification of solutions has been technologically deterministic and at times driven by evaluation methodologies. As a result of this, attempts to use social media to fill the gap in resources have been of limited success. The current changes in the sector mean that it is the ideal time to examine the use of social media by local museums and to consider how the changes outlined above can become a positive driver for institutions working at a local level to preserve and present heritage. This thesis has developed new potential for local museums in contemporary society within the current climate of fiscal insecurity and of social disruption resulting from the increasing prevalence of the Web in everyday life. The instability experienced by local museums enables a high degree of flexibility, beneficial in the uptake of new technologies and for innovation (Wells, 2012). The findings in Chapter 3 to 5 demonstrate the impact of large organisation logic on funding streams and evidence from projects that involve organisational change. This manifests as a barrier to social media through tension in local museums between localism and centralism (Prowle, 2010: 380), and in goal complexity due to affiliations with public service (Cameron & Green, 2009: 21).

This thesis has argued that social media can provide a way for local museums to facilitate experience through being a space for enactment of heritage online. Despite misunderstandings about the nature of social media, this particular facet of the Web can support the creation of this space for local museums. This thesis outlines potential approaches for local museums to social media in Chapter 6 to 8. These approaches provide a way for local museums to contribute to a model of engaging with heritage online that benefits individuals and communities and is in the public domain, rather than something that is written by government or by organisations such as museums so that communities can inform and frame Web use by local museums. As described in

the thesis, in order for local museums to adopt new approaches to heritage experience on the Web, a more nuanced understanding of our expectations of a local museum online could be fostered in the museums sector. This will ensure that local museums can successfully incorporate change relating to Web uptake that is driven by museum users rather than being sector-driven.

This thesis has demonstrated that there can be no standalone method for the adoption of social media by local museums that will apply across organisations. Instead, local museums can develop approaches to social media that are grounded in specificity by being designed as goal- and purpose-oriented. This will enable a move away from a tendency for designing interventions that are platform dependent with predetermined audiences. This is a substantial potential contribution to current practice in the UK museums sector where strategic planning is currently informed by categorisation of people as audiences or as visitors (Coffee, 2008; Voase, 2013).

The later chapters of this thesis tested ways in which local museums could take up social media as a way to improve audience engagement. The UK Government's Culture, Media and Sport Committee describes museums as a "*local responsibility*" (2007: para. 27-31). In order to achieve this more effectively, local museums need to maintain relevance by keeping up with changes in lifestyle as afforded by technologies such as the Web. In this way, they can also respond to challenges introduced by the localism agenda (Walker, *et al.*, 2007; McCarvill, 2012; Buser, 2013; Jackson, *et al.*, 2014).

This thesis has identified the impact on the museums sector of the conception of the Web in popular imagination as being topically organised (Fuchs, 2013). Social media promotes connections and content organised around special interest (Kaplan & Haenlein, 2010), and the findings in this thesis indicate that this is not manifest in the activities of local museums online, particularly within social media. There is a need for specificity in the design of measurable objectives for social media use, combined with the capacity to scale activities online. Participatory design processes used to develop the solutions against LOCCol objectives in Chapter 7 demonstrate the potential of this approach for local museums (Nilsen, *et al.*, 2012; Simonsen & Robertson, 2013; Bratteteig & Wagner, 2014). This is a potential direction for future work from this PhD.

It is important that we work to maximise the contribution made by local museums because they are heavily funded and must therefore provide value for money (Tuck & Dickinson, 2015: 21). New Labour's policy changes in the late 1990s had resulted in a redefinition of museums as public

services with social inclusion as a central function (Tlili, *et al.*, 2007). Despite this occurring at the same time as the surge in the uptake of social networking platforms and tools by organisations that deliver public services, such as local authority managed libraries, schools and sports facilities to engage with service users, research examined for this thesis indicates that museums are not achieving high uptake rates of Web use. In fact, adoption within museums of social media is focused around nationally funded, large institutions that are more likely to have dedicated marketing and communications departments (Bound, *et al.*, 2007; Watkins, 2007; Grincheva, 2010; UNESCO, 2010). Local museums, which have a clearer remit as a public service, are falling behind other analogous services such as libraries and archives. This thesis addresses this inconsistency and examines why local museums have been slower to adopt technological tools that are seen to be positive drivers in improving social capital.

This thesis has found that local museums specialise in prioritising community and identity over consumption, but this specialism has not translated over to use of social media. Local museums have been approaching social media in a way that does not support Singleton and Taylor's model of community (1992). LAMAs attempt to mediate between users and content, and this is not conducive to community building. This thesis has addressed issues experienced by local museums when attempting to use social media. There are challenges for example associated with maintaining authenticity as an organisation in social media. This thesis has explored the ways in which local museums can improve social media. For instance, local museums have an expertise in the curation of everyday archives (Beer & Burrows, 2013), and these are being created with increasing frequency within social networking platforms and social media sharing sites. Local museums have a long history in dealing with the performance of difficult heritage, and they can therefore play a role in supporting the realignment of opinions and identities within social media. Heritage is an essential part of the construction of identity, and the role of expression of heritage within social media can be scrutinised through the expertise of local museums.

At a local level, museums have been proven to contribute to individual well-being (Thompson, *et al.*, 2011; Widdop & Cutts, 2008), as well as impacting positively on the geographical areas within which they are based or on which they focus. They are many things all at once, providing a focus for tourism, for national identity, and for income generation (Desvallées & Mairesse, 2010; Holden, 2004; Marty, 2009). The pressure to fulfil these roles has driven adoption of new media technologies by local museums as being focused more on broadcasting information about programmes as an attempt to increase footfall (Kirchhofer, 2010). Collections have been less

significant as a resource for creative engagement with the Web. The predominant approach by local museums to improving the access to collections through the Web has been limited by an emphasis on digitising images of objects and creating online collections databases.

The potential impact of social media as a way to engage with different kinds of audiences such as those who may not ever travel to a museum building has yet to be explored fully for smaller, local museums. This thesis provides a framework to enable more nuanced evaluation of current approaches by local museums to social media use. People who are less likely to visit a museum are those who could benefit most from the presentation of information derived from museum collections through online platforms, as a device to experience the functionality of the Web in a safe environment. This thesis has outlined possibilities for enabling this experience.

The research presented here demonstrates that local museums do not currently play a very active part in enabling and improving Web use, but that they could potentially play a direct role in education around responsible experiences of the Web. Chapters 5 to 7 evidence how smaller museums are ideally placed to contribute to improving understanding of the ways in which the Web is impacting on our everyday lives. Local museums are seen as conduits through which the heritage of an area is expressed, and this places them in a unique position as a place within which the past can be interrogated and the future can be anticipated by individuals online. Through the Web, local museums can provide this place through engaging with social media tools and platforms as a way to facilitate the safe negotiation of heritage experience online.

Embracing the nature of local museums as changing, malleable spaces for the negotiation of identity, can result in these organisations being an ideal supporter for people's use of the Web. This is particularly pertinent in a world where expression of identity online occurs on a regular basis. Social media can provide a way to develop cultural capital on an individual and community level if mediated appropriately. Through responsible use of social media, local museums can contribute to facilitating experience of political process and social wellbeing at a community, individual and societal level.

The thesis has also examined how local museums can respond to the bias of social media. The findings from this research evidence that if local museums can develop the skills to engage in a more informed way with social media they can contribute to shaping the Web by creating and contextualising digital content that enriches the online experience of cultural capital building. This occurs through improving experience of difference and of local heritage more broadly on a

societal, community and individual level. This research has demonstrated the ways in which LAMAs can impact positively on experience of heritage through social media, and therefore contribute to improving experience of the Web more generally. This challenges the negative impact of *“large organisation logic”* (Hill, 2004: 8) of the museums sector, where change is mistakenly applied in a small organisation in a way that fails to incorporate reactive and unplanned change (Parker & Vickerstaff, 1996). This research contributes to advocacy in local heritage experience as a benefit to local economy through augmenting heritage tourism (This is Bristol, 2009; Kendall, 2013c; LGA, 2013c; SCC, 2014: EDL1), whilst simultaneously supporting local skills development (LGA, 2013b: 10).

The thesis establishes how research at a single organisation can provide results from which to develop working hypotheses that contribute to understanding analogous instances (Lincoln & Guba, 2000: 30). The research carried out at HCT has resulted in changes of attitude amongst staff at the organisation (see Chapter 7). A relational approach was employed throughout the research (Fairclough, 2009; Johnston, 2010; Lave, 2011: 296; McNamee & Hosking, 2012). The findings contribute to this area of methodological theory, presenting a conceptual framework for social media as it relates to the socio-technical system within which it is based (Suchman, 2007; Wajcman, 2007). This research provides a focus for understanding the impact that the Web could have on relationships with heritage, and with local museums online.

9.2 Implications of the research findings

Future research into the use of the Web by museums can make use of this thesis as a snapshot of the work to date into the relationship between local heritage and the Web. Due to the restrictions of the research design, this work has not considered in depth the contribution that identifying new approaches to social media could have on contemporary processes for the use of technology within the heritage sector, or for facilitating organisational change. Future work could use the findings from this thesis to support such a study.

In order to overcome changes in expectations of local museums, this thesis has investigated the potential of social media to contribute to how archaeological archives in local museums can play a more central part in people’s experience of heritage. The nature of the data means that this research has not examined how far archaeological archives are a significant and under-used resource for locally facing museums. Future research could use this thesis as a starting point to

consider this issue in order to explore how archaeological archives in local museums can have the potential to realign local museums towards a clearer purpose in society.

Several social media platforms have been identified as part of this research as being able to offer particular affordances which contribute to the development of museum goals, such as supporting long-term individual learning or providing spaces for special interest group content sharing. These are discussed in the analysis of the 18 case studies in Appendix P and Chapter 6, as well as through examples within the thesis. From analysis of existing social media use in the museums sector, evidence points to the strategic aims of social media use by local museums being generally structured around reporting mechanisms. This indicates that social media use is therefore tied into traditional forms of 'success' measurement, with impacts designed to be reportable through the traditional models of visitor studies. In order to overcome this current approach, this thesis has not recommended the use of specific social media tools or platforms. This is because social media is a rapidly evolving area and tools change quickly. Instead, the intention is to provide local museums with a framework for addressing organisational needs and therefore appropriate tools and platforms. The framework in this thesis could be evaluated as part of future studies into the development of changes to evaluation processes within the sector.

In addition to this, the use of social media within local museums is reliant on the efforts of people associated with that institution. The current evidence for social media use by local museums is one that is often driven by individual innovation with some internal involvement. Very little implementation of social media which been driven by people based externally has been adopted officially by local museums. This is not in line with assumptions about the collaborative and community based nature of social media. I could find very little evidence of qualitative studies into the motivations of people working in museums to take up new technologies to aid their own practice. The findings from this research could therefore form part of a study into the relationship between stakeholders in local museums, such as volunteers and paid staff, and the uptake of technologies, such as the Web.

A key issue addressed by this phase of the research is the need to evaluate current methods for measuring social media use for museums. Current methods for social media use evaluation, with their emphasis on quantitative reporting, are not wholly appropriate in the context of local museums. This issue has been addressed through the analysis of secondary data derived from several research projects in the museums sector. Findings indicate that projects have been focused predominately on larger, national museums, and the impacts of this have been

considered within the context of the local museum and the major challenges for this part of the sector (Finnis, *et al.*, 2011; Visser & Richardson, 2013; Villaespesa, 2015). Due to the scope of the research, new evaluation methodologies were not developed. This thesis has suggested an augmentation of Falk and Dierking's interactive experience model (2012), and this could form the initial investigation for further work into this topic.

Currently, few instances of case studies exist in the museums sector which focus on organisations that have recently transitioned to trust, and this thesis contributes to the early development of this body of literature with a focused analysis of technology use which will inform museums policy makers and funding bodies. The move to trust within the museums sector is in line with the UK Government's plan to enable groups to be more involved in the delivery of public services (Hurd, 2012: 3). Through inductive research into the possibilities of social media use, this research has examined the impact of the changes in service provision on the ability of local museums to make use of social media and to engage with the Web.

Since becoming a trust, HCT has marketed a new vision for the county's heritage collections. This is summed up in a five minute video that celebrates the launch of the Trust in the winter of 2014. In the video, popular television presenter, Dan Snow, pleads with the viewer:

"It's your museum, wander in, check it out for half an hour, and then go down the shops."(HCT, 2015a: 3:55-3:59)

This approach is in line with the general move in museums towards the creation of content tailored to heritage experiences that demand less time and effort from the visitor. This phenomenon echoes much of the rhetoric surrounding the impact of the Web on society; that we are seeking ever increasing forms of reward for behaviours during information gathering (Kee Loh & Kanai, 2015). Researchers claim that social media is reducing our ability to multitask, making us more susceptible to environmental stimuli (Ophir, *et al.*, 2009). There are fears that this is resulting in a need for more engaging experiences, and local museums are responding to this by promoting more diffused, piecemeal heritage experience. This thesis suggests that this can have a positive effect on the future role of local museums in society.

9.3 Final reflexive researcher statement

As part of the reflexive methodology of this research, Appendix W contains the final reflexive research statement for this thesis. This considers the changes in attitudes to the topics that I have

experienced over the three and half years that this research has taken place. In addition to this, the main limitations of the research are discussed below.

9.4 Limitations of the research

9.4.1 Restrictions in focusing on social media

The findings in this thesis relate to social media, and as such social media has been treated throughout as a particular interface for the Web. Although social media provides a useful meme through which to study the impact of the Web on local museums, the use of this meme may have had a reductive effect on the applicability of the findings. In addition to this, the work in this thesis does not discuss increasingly popular modes to use social media away from the Web. This includes mobile device apps. These are significant as they represent a sea-change in the ways that the Internet is accessed. Apps in particular filter information based on personalisation in a more controlled manner than Web interfaces such as search engines and websites.

As the research process progressed, several themes were emergent from data. Unfortunately, it was not possible to incorporate all of these potential new directions into the research for this PhD. Social media provided a bounded focus with which to address the overarching research questions, but this may have limited potential findings. For instance, during analysis of interviews from YMT, the theme of the open agenda was a clear major concern for the organisation. The open agenda is already having a significant impact on practice within the museums sector, and the impact of it on local museums is under-studied. However, this could not be added to the topic of study, despite the overlapping concerns within it. These emergent themes have informed plans for future activities, described later in this chapter.

9.4.2 Relevance of findings and generalisation

The findings are limited to local museums. This research has focused particularly on local museums that care for archaeological archives, and this was based on an existing relationship with a heritage organisation as well as my own expertise as an archaeologist who has worked in local government museums. In focusing on one single partner organisation, generalisations should not be attempted from particular aspects of this research. In Chapter 5, four new approaches to social media for local museums are outlined. These are developed through combination of theoretical research into the context within which social media and local museums are situated,

with analysis of case studies and evaluation of a series of project proposals that were designed for implementation at HCT in Chapter 6 and 7. The solutions for HCT are context-dependent and apply to the partner organisation specifically. However, some characteristics of the design process of the proposals may be implemented within new contexts. To this end, in order to provide a transparent audit trail to the findings, Appendix Q includes a description of the objectives of the proposals as well as the proposals themselves and the evaluation. It is hoped that this will extend the relevance of the findings to other types of locally focused collecting organisations.

9.4.3 Relating to the model of the Web

This thesis describes a Web that forms responsively and is an imminent assemblage. This is developed from J. Bennett's work on assemblages (2005). This research has examined how actants make up the Web through experience, based on Ingold's idea that an environment is revealed through relationships (2000). In this way, this thesis reports that local heritage can manifest within social media. The communities that form through the Web are therefore emergent in practice. This thesis approaches the Web as assemblage that focuses on actants that make up the Web through experience (DeLanda, 2006: 18-19). This is an approach that is based in the idea of the social shaping of technology and as Winner writes, technology cannot be understood without considering the history of its development as well as the political context within which the technology currently exists (1999: 39). An assemblage, according to Deleuze is formed from action resulting in the development of a series of components (cited in DeLanda, 2006: 18-19). This thesis has approached the Web in this way, and this has meant that the findings are impacted by this particular perspective onto technology.

This research finds considerable evidence for an argument to encourage local museums to actively seek to identify the components of an assemblage in the use of social media in order to improve the reach and longevity of impact. The initial phase of this research identified these components as having potential to improve community forming and of heritage experience through social media. However, the study of current social media use in this thesis found little evidence of leverage of this potential amongst local museums.

Further reflections on assumptions that impacted on the research are discussed in the third reflexive researcher statement in Appendix W.

9.5 Recommendations for future research

The following section outlines recommendations for future research.

9.5.1 Recommendation 1: The impact of opening up collections

The interviews that I carried out at YMT showed the organisation to be a potential valuable source of research into the move of a heritage organisation to an open agenda. Due to time restrictions, I was unable to interview some of the key actors for incorporating a commitment to openness into the YMT's forward plan in 2012. Further examination could reveal findings that would be beneficial to analogous organisations in the sector that may be considering a move to open licensing. I am keen to carry out a project that looks at how to best identify lessons learned from the work that YMT has undertaken since collections were opened up online.

9.5.2 Recommendation 2: Contribution of local museums to digital literacy

Explaining the potential impact of social media for local museums is problematic as commentary on social media use is newly established and findings about the impact of such tools on our lives are not yet longitudinal. There are significant gaps in research. In addition to the opaqueness of the computationally derived social content on social media, the learning curve needed to engage with social media is high. To date, very little has been published about the learning required for newcomers to social media and the impact of this on digital literacy and on participation more generally in the museums sector. Experiences of tools and platforms are constantly changing as many systems use live bucket testing (where two versions of something are presented to different sets of users to compare results) to improve usability on a regular, and sometimes constant basis, evidenced usability testing cycle for social networking platforms (Kohavi, *et al.*, 2014). As a result of this, many users of social platforms do not know how to carry out essential tasks, such as managing privacy settings. These kinds of tasks are a critical part of coping with the Web and the impact of it on individuals' lives. Local museums could contribute to improving the development of understanding of social media by facilitating experiences with the Web that aim to moderate the impacts of the factors listed above.

Differing legislation and political motivations mean that access to content via the Web differs substantially by country, and indeed in some instances by state (Kalathil & Boas, 2010; Wharf, 2012). The spread of the Web globally carries with it a promise of increased freedom (Wriston,

1997), and this conception could be a key consideration for use of the Web by local museums. There is a difference between access to information and apparent freedoms, as seen in instances such as China, Syria and Egypt (Deibert, *et al.*, 2010; Jansen, 2010; Wharf, 2011; Morozov, 2012; Scholz, 2013: 3). This is not to say that access to the Web cannot contribute to freedom or well-being, but is merely to highlight that this connection is not simply one of direct cause and effect (Eickelman, 2005; Pavel, 2009; Kalathil & Boas, 2010). The reality is that each person will experience a different Web which is dependent on location, device used, and experience of filtering through the mass of content. Museums can contribute to improving awareness of digital inequities by playing a more active role in the production of digital content that shapes the Web.

Numerous moves have been made to improve individuals' access to information through the Web and much of the coverage of increase in access to knowledge of information relating to issues such as political decision making, or government money spending, has focussed on the Web as the game-changer (Shah, *et al.*, 2001; Pasek, *et al.*, 2009). Stories in the media report ways in which the Web is changing individuals' situations by providing access to information (Feezell, *et al.*, 2012), and reports of empowerment through the Web, such as the Wikileaks case (Hintz, 2013: 146-152) evidence the potential of the Web as a platform for change at a societal level. However, this thesis has demonstrated that it is technology that drives this movement towards a push to demand access to information and this is ill-aligned to people's actual needs.

The need to better align the development of online social tools and platforms to individual requirements is the key to the argument put forward in this thesis. Some have presented the Web as a catalyst in the move towards demanding access to information that was previously considered to be 'off limits', and social media has been seen as a major driver in this move (Couldry, 2012; Rogers, 2013). The actual motivations for change that drive these seemingly Web-based behaviours are less commonly discussed and there is little understanding of the way in which social media may be blocking change in the analogue world. This is due to the way in which it has developed as a set of disconnected tools and platforms within which silos of experience are occurring. There is very little research that explores the issues around digital skills and social media as it applies to the museums sector. By using local heritage as a method for engaging with people through social media, local museums can provide opportunities for people to develop digital skills.

9.5.3 Recommendation 3: Including local museums in the debate of the Web in society

In studying the relationship between the Web and society, most research attempts to understand how communities experience information and form bonds online (Gleick, 2011). As discussed in this thesis, attempts to understand the relationship between perceived specialisation and increased connections facilitated by the Web have been made from the perspective of digital inequalities (Witte & Mannon, 2010; Helsper, 2012; Ragnedda & Muschert, 2013). Studies have also considered the potential of social media for identity formation or for social inclusion (Kawashima, 2006; Travers, 2006; Huijboom, *et al.*, 2009; Ferro, *et al.*, 2010). As evidenced in this thesis, local museums specialise in enabling access to information and are ideally placed to contribute to the study of the Web and society from these perspectives. As a response to this, this thesis has presented a framework with which local museums can take part in the debate surrounding the impact of the Web on our lives, in the hope that this will inform future research in the sector. Further research is required to facilitate this debate.

Museums have lower levels of empowerment from senior management and lower than average digital experimentation, research, and development capabilities than other arts and culture institutions (MTM London, 2014: 36-7). Research in the area of data sharing within the third sector (Hall, *et al.*, 2013), as well as research into funding start-up enterprises (Dushnitsky & Marom, 2013), is pushing the limits of currently accepted models for business development. Work such as this will impact on expectations of museums and will increase pressure on the sector to engage with digital trends. Currently there is little evidence to point to changes in strategic aims that would enable better use of technology by local museums through a commitment to investing in digital skills, and allowing for risks to be taken in relation to the experimentation of digital solutions. This thesis makes a contribution to this body of evidence, but further work is needed.

9.5.4 Recommendation 4: Extending the focus of research into social media

This thesis has shown that there is a need within the museums sector for socially focused online activities that will enable local museums to engage with the Web in a way that is conducive to fulfilling major aims as outlined by ICOM's definition of a museum. The research has also identified the potential contribution that local museums can make to online practice, including augmenting curatorial practice, facilitating identity negotiation, strengthening community ties and addressing community concerns, and improving local context as it applies to collections. The research has focused on local museums, with attention on archaeological archives for the

application of the findings. Future research could investigate the differences that may manifest with the needs of other types of collections, such as natural history or social history.

9.6 Future activities

9.6.1 Journal article - The use of community archaeology research to the analysis of community building around archaeological archives in local museums, for the *Journal of Community Archaeology & Heritage*

Decision-makers favour the idea of local museums as being predominately focused on heritage. This is apparent in the Local Government Association's (LGA) culture, tourism and sport programme which categorises local museums as heritage institutions, rather than explicitly as museums (2015). More established interpretations of heritage tend to give precedence to monuments of national significance (Hunter, 1996). A model of heritage that local museums could support however could focus instead on individual and community significance building over physical place. Schofield's recent edited volume on the role of the expert in interpretations of heritage for instance highlights the move towards conceptualising heritage from community perspective (2014). Local museums caring for archaeological archives are ideally suited to fulfil the role of a site for public debate.

Archaeology collections are excellent modes for the exploration of identity and of people's relationships with and formation of heritage. Research around the theory of community archaeology (Marshall, 2002; Moser, *et al.*, 2002; Scham & Yahya, 2003; Schmidt, 2005; McGuire, 2008: 36; De Felice, 2013; Neal & Roskams, 2013) illustrates the potential strength of archaeological collections to support a realignment of local museums towards locally focused heritage. Supporting locally focused heritage through archaeological collections would mean that the communication of heritage should incorporate community needs into programmes of collections care and interpretation. For museums caring for archaeology, Sullivan and Childs advocate identifying ways to lessen the gaps between creators and curators of archaeological archives (2003), as this is a known issue for archaeology. This paper will explore how research into community archaeology could be applied within the context of online community building around archaeological archives held in local museums.

9.6.2 Journal article - The impact of informed use of social media by local museums on social wellbeing, for Curator: The Museums Journal

This thesis has identified a potential direction for planning to make use of social media that concentrates on the contribution that social media can make to social wellbeing. This shifts attention from ideas of museums for knowledge building and looks more to supporting the underlying needs of individuals. Local museums have been identified as institutions that can play a key part in staging experience of heritage at societal, community and personal levels (Harvey, 2015: 577). Wellbeing is a significant new direction for local museums' use of social media, and could be a way to improve the support that use of social media receives by management and governing bodies.

The National Planning Policy Framework of 2012 establishes "*cultural wellbeing*" as part of a heritage and planning framework that is focused on place (Department for Communities and Local Government, 2012; LGA, 2013b; Holden & Hewison, 2014: 16). This emphasis on wellbeing through cultural experience does not overcome the authoritarian expression of mainstream heritage organisations or the UK Government's interpretations of heritage. There is potential to develop new methods for measuring online experiences with local museums that result in improved wellbeing at a local level. Ander *et al.*'s design for a Wellbeing Outcomes Framework for museums represents a significant step forwards in this area (2011). Work is still needed to develop ways for the museums sector to express definite causality between wellbeing and heritage experience through local museums. An article exploring this would contribute to the ability of local museums to procure grant funding from organisations that prioritise social return on investment. This will have a particular focus on the potential of digital technology to facilitate cultural capital building.

9.6.3 White paper - Local authority museums and the Web: An argument for change through practice, for LGA

I intend to produce a report that distils the findings from this thesis from a governing body perspective. The white paper will make use of the thesis chapters, but will build on this work to present potential impacts of the research on current processes for decision making relating to funding, both core and grant making. The white paper will consider issues such as the challenges associated with the measurement of social media impact, specifically from a local museum perspective.

9.6.4 Sector report - Encouraging innovation in Web use: Funding local government museums, for ACE

My intention is to develop the findings from Chapter 3 and 4 to develop a sector report to outline recommendations for local government museums to secure funding for activities that make use of social media. Action research at HCT highlighted a need for guidance on the use of digital technologies, but also that there is a lack of information about the impact that online resources could have on planned activities. I would like to work with HCT and YMT to design a report that could give practical advice on the ways that social media could be incorporated into planned activities to improve impact. In the short-term, this could support applications for ACE funding from the regional museum development networks for smaller, local museums, and this would improve the uptake of digital technologies more generally across the sector in the long-term.

9.6.5 Magazine article - Social media and volunteers in local government museums, for Museums Practice

The research identified that the contribution that volunteers make to access to archaeological archives in local museums is under-studied. During the course of the research, several instances of social media use by volunteers were identified that demonstrated the potential impact of organisational support for development of digital skills amongst volunteers. A short article for Museums Practice that described the activities being carried out by HCT volunteers as part of the Hampshire Archaeology Wordpress blog, co-authored with the Curator of Archaeology at HCT would contribute to improving awareness of this input.

9.6.6 Online article - Funding bodies and social media: Design, implementation, evaluation, for Collections Trust

Improving the implementation of social media projects by local museums will contribute to raising awareness of the positive impact that local museums make to the experience of local heritage. At a local level, heritage is an essential part of everyday life (Thomas, 2008; Harrison, R., 2013: 1). Despite this notion being well-established within the museums sector (HLF, 2014: 4), a change in perception by central government of the importance of local heritage for society as it is manifesting online is needed. An article on the procedure for incorporating social media into planning would utilise current approaches to interrogating heritage in order to better understand the potential for supporting cultural capital through digital skill development.

9.6.7 Training materials - Using the Web to improve advocacy for archaeological archives in local museums, for SMA

I intend to contact the SMA to provide training materials that are based on the MUSM framework for use by curators for LAMAs. These materials will focus on providing methods with Web-based components for improving advocacy around archaeological archives. The materials will have a specific focus on the major challenges for LAMAs.

9.7 Recommendations for future policy

This section outlines a series of suggestions for future action within the museums sector. To improve the impact of the work described in this thesis, findings are both problem-oriented and policy relevant, as outlined in the EU's guidelines for ensuring that research informs policymaking (ECRISSH, 2010: 11). A key finding for this research is that current models for planning and for evaluation of Web use need to be scrutinised from the perspective of local museums. This will contribute to identifying ways to mitigate against the effects of the major challenges for local museums as identified in earlier phases of the research. This will also contribute to instances of best practice in social media use as identified in earlier phases of this research, in order to gain a more nuanced understanding of the reasons why perceptions of the potential of social media do not match the actual use of social media. Specific recommendations are outlined below:

9.7.1 Recommendation 1: Insights into digital capability

This research has identified that there is a lack of knowledge in heritage sector about the technical capability of local museums to innovate in access to archaeological archives through the Web. Although this research only focused on two organisations that managed local museums, the findings seem to indicate that there is a lack of ICT assets. Particularly in the case of HCT, the connection between innovation and creative use of technology was partly due to the lack of access to technology that was capable of rendering current versions of browsers. The SMA could undertake a survey of local museums to identify current ICT resources. The findings from such a survey could lead to the SMA being able to evidence to organisations such as the LGA and the AIM how far there would be a return on investment from better provision of ICT to professionals caring for archaeological archives.

9.7.2 Recommendation 2: Guidance on digitisation and open licensing

This research points toward a need for more comprehensive advice on alternatives to wholesale digitisation of collections for local museums for sharing online. The research in this thesis suggests that local museums need guidelines that are specifically for smaller museums in which the majority of people are involved in the digitisation process. Opportunities such as metadata indexes like Europeana are problematic to engage with because of the need to develop formalised partnerships. Europeana could consider providing a facility aimed at smaller local museums that could allow uploading of very small collections or even individual object records to the system. This could lead to case studies that would improve awareness in local museums of the possibilities of Europeana and similar indexing projects. In turn, this could result in improving advocacy within governing bodies to enable local museums to engage in more formal arrangements.

In addition to this, the work with YMT and HCT indicates that local museums may require clearer guidance on how to move towards an open agenda. Providing information for individuals working within local museums to use as evidence of the benefits of moving to open licensing of images from collections for example, would contribute to creating enthusiasm around the open agenda in the sector for smaller organisations. CT could provide this advice within the Collections Link website (2015) which has similar guidance for other topics, or OpenGLAM could provide more practical pointers relating to issues such as managing the intellectual property of a digital image of an object that was photographed for a different purpose than online sharing. However, examples of positive improvements such as increase of reach of collections through open licensing could be shared through mechanisms that will lead to stories being seen by decision makers in the sector. This means ensuring that local museums are represented through publications like the Museums Journal (2015) and Arts Professional Magazine (2015).

9.7.3 Recommendation 3: Investing in volunteers

Volunteers have been identified in this research as under-recognised stakeholders in the online activities of local museums. More research is required to establish ways forward to better support the digital skills needs of volunteers. The Council for British Archaeology (CBA) could offer digital skills development opportunities for volunteers who are interested in archaeological archives. This could improve cultural capital amongst volunteers, whilst also leading to innovation in digital projects within local museums. This could take the form of online digital resources for the CBA

website (2015). The use of these could also contribute to building digital skills. There may be potential to develop an online open learning resource, such as a Massive Open Online Course (MOOC) (Daniel, 2012; Stephens & Jones, 2014).

9.7.4 Recommendation 4: Developing support networks

The findings did not show any evidence of recognised locations for best practice and guidance specifically for local museums wishing to improve the use of technology. Culture24 is a potential online space (2015) within which a network could be established and supported in order to provide a way for paid staff and volunteers to share stories about innovation in practice. In turn, a network of this nature could increase interest in volunteering within local museums. Whilst a network such as this would not replace the excellent training offered by regional MA groups and similar associations, it would relieve some of the tension that this research has outlined in providing initial introductions to digital topics so that individuals in museums can make more informed decisions about costly training requirements.

9.7.5 Recommendation 5: Consideration of ethical consequences of social media engagement

This research has highlighted that there is little information available that provides directions for local museums on the ethical considerations of engaging with social media. For example, comment facilities are added to object records encouraging individuals to submit personal reflections, but there is little information available for contributors about the potential reuse of that content. Ownership of user-generated content is rarely acknowledged through open statements. There is potential for a system of symbols to be developed by an organisation such as OpenGLAM or the CT that outlines clearly to participants in social media activities with a museum what the intentions for the user generated content will be. Awareness could be increased within local museums that ethical considerations should become an integral part of the design of social media projects. In addition to this, activities that require work to be carried out by individuals on behalf of the museums, such as crowdsourcing of digitisation of collections, could more formally acknowledge the contribution of users to the collections records. OpenGLAM or CT could develop a statement to this end that could be offered to local museums that were considering working with organisations such as Zooniverse (2014), the crowdsourcing platform, so that they were able to provide clear statements about intent within the design of the tools.

9.7.6 Recommendation 6: Improving access to new archives

The work at HCT pointed to a need for new ways to deal with the lack of time and resource for sharing online information about archives as they were received into the collections. One possible solution to this could be for the ClfA or CBA to provide advice to commercial archaeology units, research archaeology teams, and local archaeology groups on how to flag potentially engaging digital content as it comes into the stores. Highlighting at the point of accessioning, ideas for sharing the content will improve the speed at which people will be able to access archives that are submitted to a local museum. The submitting organisation will have advanced understanding of their archive, and can contribute more actively to opening up the collections by giving curators ways to speed up sharing information about an archive online. This could also be carried out post-accessioning, if the ADS were able to develop an additional option within the inclusion of archives to national, centrally managed, online databases with submission interfaces such as OASIS (2014) or ADS-easy (2015) that enables this highlighting to occur. This could be presented as an option for data submitters to tell the story of their archive in terms that would be suitable for sharing to social media. This could be formalised using additional fields in current submission forms, or could be an add-on for particular projects. This would contribute to advocacy in organisations such as the ADS by improving public engagement.

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UNIVERSITY OF SOUTHAMPTON

FACULTY OF HUMANITIES

Archaeology

Volume 2 of 2

**Local archaeological archives as participatory heritage: Investigating the potential of
social media to improve access to archaeological archives in local government
affiliated museums in England and Wales**

by

Nicole Beale

Thesis for the degree of

April 2016

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Appendix A First reflexive researcher statement

This thesis is accompanied by three reflexive researcher statements. I have included these as a way to provide insights into my expectations of the research before, during, and after it has been carried out. My hope is that these reflexive accounts will improve the validity of the research that I have carried out for this thesis. The statements are described briefly below:

1. *Before*: Reflexive researcher statement 1 (Appendix A) provides a background to my own experience.
2. *During*: Reflexive researcher statement 2 (Appendix V) acts as a moment of consideration partway through the research process. The second statement considers how the methodology is developing and outlines concerns and potential opportunities for learning that have arisen as part of the activities so far. This statement focuses on data collection and initial analysis. This statement has been written based on a series of reflections that I kept in my fieldnotes as the research progressed.
3. *After*: Reflexive researcher statement 3 (Appendix W) provides a final reflection on the experience of the thesis, and gives insights into the decisions I made during data analysis and interpretation. This statement also serves as a report on my own personal learning experience.

This first reflexive researcher statement provides the background to my own assumptions about the research topics. I have attempted to openly discuss my own personal experience of local museums, archaeological archives, the Web, and social media, as well as my professional experience with these themes.

In order to deal with any issue that may arise as overlaps occur between my professional activities and my actions as a researcher (Kleinsasser, 2000; Guillemin & Gillam, 2004), this statement provides a description of my relationship to date with the partner organisation and the main case studies for this research. This research is not self-study as it is identified by Hamilton *et al.* (2008), but as I had an established relationship with HCT at the beginning of my project in another capacity, I wanted to clarify this as part of the reflexivity of the research methodology.

I have some experience with local museums as I worked part-time as a Museums Assistant throughout my university studies, and then was employed as an Assistant Curator in a small un-accredited local authority museum. My role focused on the learning and outreach programme for the museum, as well as the archaeology collections. As such, I represented the museum on the

regional archaeology curators' committee meetings. During these meetings, I often felt frustrated that there were so few resources available to tackle some of the major problems that the care of archaeological archives presented to curators. I was becoming increasingly interested in the idea of the Web as a way to ease some of the pressures on local museums that were caring for archaeological archives and I sought to gain more experience in this area.

Before working as an Assistant Curator, I had worked for three years in higher education (HE) in the south of England as an eLearning Officer and later eLearning Co-ordinator, and during this time I had gained knowledge about the kinds of capabilities of the Web for staging social interactions between University staff and students. I was very interested in the idea of the Web as a way to challenge the conventions of expert-amateur, and the changes in the academic sector seemed to signify that a shift was occurring.

I was excited about the move from proprietary learning management systems like Blackboard, to more flexible open source options, such as Moodle. In fact, as part of my Masters in Archaeological Computing dissertation, I had been investigating the potential of a similar system, Drupal, for the facilitation of collaborative interpretations of heritage as part of the Quseir al'Qadim community archaeology project (Moser, *et al.*, 2002; Smith, 2006). Although I had some doubts about the newer innovations on the Web, such as Massive Open Online Courses (MOOCs) which seemed to involve a lot of work for the institution but provide very little social experience between participants or between learners and educators. Generally, I was enthusiastic about the potential of opening up processes within universities. It seemed also, that this was occurring within the museums sector, although in a less centralised way.

Web 2.0 seemed to offer a real possibility for local museums to engage more openly with people, and to align their activities more closely to the needs of communities. I decided that I wanted to focus more on this, and so in 2008, I left my job as an Assistant Curator and began working for Hampshire County Council Arts and Museums Service (HCCAMS). I was employed as part of a Heritage Lottery Fund (HLF) project at one of the Council's outdoor heritage sites, Basing House. My role was as an Education Officer as well as a New Media Officer. I spent part of the time working on the HLF project, to develop a new learning programme at Basing House, and part of my time supporting the implementation of technology across the various sites in the county. I enjoyed this aspect of the work, and helped to set up quite a few projects that made use of the Web as well as other technologies like Augmented Reality, audio guides, and mobile phone apps. The role at HCCAMS was time-bound as part of the HLF funding and towards the end of my contract I applied for funding to begin a PhD at the University of Southampton. As part of this

funding, I was enrolled onto a Masters in Web Science, which I undertook from 2010 to 2011. In the lead up to beginning the course, I began to set up a fieldwork project that would bring the University and HCCAMS together to carry out a long-term series of surveys and excavations at Basing House. During the MSc course, I found out about the technologies behind the phenomena that I had been working with in the museums. Whilst I was studying, I maintained my relationship with HCCAMS through the fieldwork project at Basing House, and this meant that I had many discussions with staff, volunteers, and community members about the challenges that the archaeological archives at HCCAMS were facing. I decided to try to make a positive contribution to solving small parts of these issues through my PhD research.

My work for this thesis is based in this background. I had already undertaken a journey to arrive at the beginning point of my work, and as part of this I had developed assumptions about the potential usefulness of Web 2.0 for local museums. Despite working in a role as a curator, I was nervous that my assumptions would not be in line with others in similar positions, and so I committed lots of time during my MSc in Web Science attending museums practitioner events whenever possible. I had conversations with professionals in the sector to gauge anecdotally whether I was planning to contribute new knowledge that would be useful. It seemed that there was a need for a more in-depth examination of the potential of social media for museums that worked on a local level, and so I proceeded with my planned topic.

Appendix B Interview Schedule at HCT

As described in section 2.5.1.3 of the thesis, the initial interviews were semi-structured and aimed to consider influences on practice, as per Davies *et al.* (2000: 15). The following themed questions are structured around the categories for influences:

- Organisational structures and culture
- Formal knowledge (e.g. research evidence)
- Resources: Personal and organisational
- Tacit knowledge
- User demands and pressure from stakeholders
- Peer values and pressures

B.1 Establishing individual digital literacy

As part of a discussion of digital literacy, covering the five Go ON UK categories: Managing Information; Communicating; Transacting; Problem-solving; Creating (Go ON UK, 2014).

For the category of 'Transacting': Could you tell me whether you use the Internet to do things like ordering shopping, doing banking, or booking travel?

B.2 Validating the major challenges

A discussion of the main challenges as they are perceived by the participant. How these manifest particularly in the HCT context.

What do you think are the major challenges for your role/for the organisation in the next five years? For communication, curation, collection (e.g. conservation)?

How do you think this will differ from the national museums?

B.3 Examining current social media use at HCT

Can you tell me about your own use of social media professionally as part of your role at HCT? I was wondering how you had come across social media within the museums sector.

HCT has been using social media for a while now, I like to know more about social media projects or social media accounts that you have been involved in at HCT.

What has your perception been of the potential of social media for your own work and also for the work of the HCT?

How do you use social media in your role? What has worked or hasn't worked? And why you think this is the case?

Can you tell me about a museum that uses the Web that has inspired you?

B.4 Exploring the potential of social media

As part of a discussion about examples of best practice of social media use addressing the major challenges for local museums.

What do you think of this kind of project for your department's/site's aims?

Think for a moment about the kinds of resources that you think you might need to implement this kind of project (*use prompts if needed: skills, access, motivation, cost*). Do you think that they seem justifiable?

Would you be able to implement this kind of project at HCT with those resources in mind?

B.5 Reviewing way-forward proposals

As part of an initial discussion about designing project design proposals later in the research, to gauge interest.

You have been looking at a project that aims to address the major challenge of...

Do you think that this project would address that challenge?

Are there any other challenges that you think this project might be able to address?

Thinking about the resources needed for this project, as described in the proposal, do you feel that they justify the kinds of benefits that we have just been discussing?

Appendix C CAA2014 Session: Community Archaeology and Technology

C.1 Session details

Computer Applications and Quantitative Methods in Archaeology 2014 conference, Paris, France, Paris, 22nd-25th April 2014

Session: Community Archaeology and Technology

Thursday 24th 14:00-19:00, Pantheon S1

Chairs: Nicole Beale, Web Science Doctoral Training Centre, University of Southampton, and Eleonora Gandolfi, Archaeological Computing Research Group, University of Southampton (ACRG)

Our purpose in this session is to estimate the viability and applicability of advanced technologies (in recording, management and/or communication of cultural heritage) for archaeology in a collaborative environment working together with communities. Hi-specification technologies are increasingly becoming an essential element of archaeological recording, interpretation and dissemination, with previously expensive equipment such as laser scanners becoming cheaper. In addition to this, there has been a rapid development in low-cost technological solutions, with tools such as photogrammetry, Reflectance Transformation Imaging, 3D printing, and mobile device apps becoming popular amongst archaeologists. These technologies offer substantial improvements to the ways that archaeologists and communities can work together. In light of these new opportunities for affordable technologies, the relationship between communities, cultural heritage organisations and universities has become increasingly pertinent. Budgetary constraints are becoming increasingly significant, and we are reminded on an almost daily basis of the importance of incorporating successful collaborations into the management of archaeology. These projects often use technologies for the recording of material culture and landscapes, the interpretation of data, and the communication of ideas. Methodologies for technology use are often decided along the way, and most projects have an emphasis on expertise remaining with those providing the equipment. There is an opportunity, with new technologies that adapt and adopt existing equipment, such as computational photography methods with open source software options, to transfer knowledge of highly sophisticated technologies over to communities. Many in academia are calling for increasing forms of engagement between researchers and communities, and this session is an opportunity to discuss this move towards

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long-lasting relationships between communities and archaeologists within which technology is a central factor. Examples might include projects that have used Web-based communication to maintain contact with a community, or projects that have relied heavily on open source solutions for recording. Although the use of new technologies such as non-intrusive recording techniques, social media, can facilitate this type of engagement, this session welcomes submissions addressing legal, ethical and communication issues. We encourage participants to critically reflect upon their projects' use of technological solutions, the many forms of engagement, and the impact of these approaches on our vision of the past.

C.2 Papers

Table 15 below list the papers in the session.

Presentation title	Presenter(s), organisation
Community archaeology and geophysical survey: reflections on the Sensing the Iron Age and Roman Past project	Kris Lockyear, Institute of Archaeology UCL Ellen Shlasko, Institute of Archaeology UCL Andrew Bevan, Institute of Archaeology UCL
The Phoenix Project: Using Heurist to Resurrect the MARTA Archaeological Collection and Atlanta's Past	Jeffrey Glover, Georgia State University Ian Johnson, University of Sydney Alexis Powers, Georgia State University
Tablets and Tides: Excavation, data-sharing and community involvement on the Northwest Coast of British Columbia, Canada	Sarah Kessick, Millennia Research Limited
Public Archaeology	Lorna Richardson, University College London
Developing 'Crowd and Community-fuelled Archaeological Research': methodological, technical and ethical challenges	Chiara Bonacchi, University College London Daniel Pett, The British Museum Andrew Bevan, University College London
Making community-driven, open source investment work in archaeology	Benjamin Ducke, Independent researcher and software developer (IR/SD), Berlin
The ACCORD project: Archaeology Community Co- Production of Research Data	Stuart Jeffrey, Digital Design Studio, Glasgow School of Art (GSA) Sian Thomas, University of Manchester

Presentation title	Presenter(s), organisation
Create Once, Consume Anywhere: Curating Accessible Archaeological Content for Mobile Apps	Michael Charno, Archaeology Data Service (ADS) Ed Zukowski, British Library Stuart Jeffrey, Archaeology Data Service (ADS)
Co-Production of alternative views of lost heritage: Crowd-sourced Photogrammetry in Heritage recording	Andrew Wilson, School of Computer Science, Bangor University Jonathan Roberts, School of Computer Science, Bangor University Raimund Karl, History, Welsh History and Archaeology, Bangor University Bernard Tiddeman, Computer Science, Aberystwyth University Ben Edwards, Department of History, Politics and Philosophy, Manchester Metropolitan University

Table 15 - CAA2014 papers

C.3 Abstracts

Community archaeology and geophysical survey: reflections on the Sensing the Iron Age and Roman Past project

Kris Lockyear, Institute of Archaeology UCL

Ellen Shlasko, Institute of Archaeology UCL

Andrew Bevan, Institute of Archaeology UCL

Over the last three years the British Arts and Humanities Research Council has funded a series of projects under a cross-council funding scheme entitled Connected Communities. The aim of these grants were to enhance the connections between the academic sector and community heritage groups enabling, on the one hand, the universities to support these groups through training and other means, and on the other hand to undertake new joint research projects co-authored with members of those community groups. In archaeology «community heritage groups», in the form of archaeological societies, have a long history often predating the development of academic and professional archaeology. With increasing specialisation within archaeology and the rising costs of excavation and post-excavation, these more traditional forms of research are increasingly difficult for local societies to undertake. The success of the budget TRCIA resistance meter has made

geophysical survey an attractive addition to types of work local societies can undertake.

Resistance survey is by nature, however, slow, dependant on weather/ soil conditions, and usually undertaken at a low data density (e.g., 1 reading per square meter). In contrast, magnetometry is fast, can have a higher data density and is not seasonally dependent which has led it to be the technique of choice for commercial archaeology whenever possible. Access to the equipment remains a problem for community groups. The Sensing project has enabled an alliance of archaeological societies from Hertfordshire to collaborate with UCL, local museum services and the Historic Environment Record to undertake a series of surveys, principally of the Roman town of Verulamium. The project purchased a Foerster four sensor cart system which will remain available to the collaborating community groups beyond the end of the project. This paper reviews the work of the project, including the people involved, the advantages and problems of the hardware and software involved and the planned online open access publication with direct links to the project's data archive.

The Phoenix Project: Using Heurist to Resurrect the MARTA Archaeological Collection and Atlanta's Past

Jeffrey Glover, Georgia State University

Ian Johnson, University of Sydney

Alexis Powers, Georgia State University

During the 1970s Georgia State University (GSU) archaeologists conducted systematic excavations associated with the construction of the Metro Atlanta Rapid Transit Authority (MARTA) rail lines. This project recovered the material remains of Atlanta's past, and these materials represent the single most comprehensive archaeological collection of Atlanta's history. In addition, the excavations themselves are among the pioneering projects of urban archaeology in the then nascent field of CRM (Cultural Resource Management). Thus, just the excavation archive, which is part of the collection, is invaluable for the history of archaeology in the US, especially the burgeoning new field of urban archaeology. The entire collection (469 medium- sized «banker» boxes housing over 100,000 artifacts and all the accompanying documentation and excavation archive) has recently been returned to GSU. Showcasing significant «moments » in the life of the city, including several Civil War sites associated with the Battle of Atlanta, the majority of the collection corresponds to the late 19th and early 20th century, the time of Atlanta's rebirth as a major metropolitan area.

The greatest effort associated with this project is the digitization of the collection. The digitization includes data entry, scanning of field notes, reports, and maps, as well as the transformation of those data into an accessible dataset via the Web. An archaeological project is only as good as its notes and records. This is particularly true when working with legacy data. The people working on the project today are not the ones who did the excavation, which can make the interpretation of the materials challenging. For that reason creating easily accessible and interpretable digitized field notes to accompany the other digital data is critical and is the reason GSU has joined forces with the Heurist team at the University of Sydney. Arts eResearch at the University of Sydney has been developing a flexible Web-based database - Heurist - for Humanities data for the past 6 years. This database has been used in numerous research and public outreach projects. Heurist is unique in integrating and linking a wide variety of data, from quantitative data on artifacts and trenches through notes and photographs to mapping data and annotation of resources. Apart from providing a multi-user, Web-based interface with different levels of security for different users, Heurist provides facilities for republishing the data for both professional and public access using a variety of output formats, from lists, maps and timelines to data feeds for input to other software or consolidator sites. The Heurist software went Open Source in 2013, and the database is being made publicly accessible. This paper discusses how Heurist has allowed this long-forgotten collection to finally shed light on the development of the Southeast's largest city and to engage the public about the benefits of archaeology in ways that were not even dreamed of when this project began in the 1970s.

Tablets and Tides: Excavation, data-sharing and community involvement on the Northwest Coast of British Columbia, Canada

Sarah Kessick, Millennia Research Limited

An extensive archaeological data recovery project involving Millennia Research Limited and two Coast Tsimshian communities, Metlakatla and Lax Kw'alaams, took place in 2012-2013 in Prince Rupert Harbour, BC, located on the northern Northwest Coast of North America. First Nations individuals participated in the excavation as both professionals and as 'junior archaeological assistants' who had no formal training in archaeology. Through the use of advanced data recording methods and real-time data sharing between Millennia Research and the remote (boat access) First Nation communities, the expedient dissemination of significant finds, such as human remains and formed artifacts, was achievable. This real-time data sharing greatly contributed to transparency of archaeological findings, and community awareness of the excavation. The eight month excavation, primarily accomplished during the cold, wet and windy winter months typical

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of the northern Northwest Coast, challenged the technology designed to expediently record data. Tablet computers functioned despite being damp and dirty while cold fingers managed to operate them much easier than writing in soaking wet notebooks. Barcode scanners, used to link total station spatial data to attribute information recorded on tablet computers, saved time and reduced errors. Most First Nation 'junior archaeologists', with their knowledge of popular technology were able to make immediate contributions to data gathering and transmittal. Throughout the project, the evolving interest and understanding of the junior archaeologists regarding the purpose of extensive and accurate data gathering became apparent. The 'juniors' watched demonstrations showing the progression of total station points into shaping 3D representations and on first viewing this, several exclaimed «this is just like I imagined it would look». The junior archaeologists assisted with setting up and maintaining the WiFi systems that linked tablet computers to cloud computers. One junior archaeologist with aptitude became expert in laser scanning of artifacts and in microscopic imagery; this allowed new ways to share imagery of artifacts and incorporation of artifact scans into GIS. The advancements in technology and the participation and support from First Nation communities in archaeological data recovery projects is considered crucial to the proper management of archaeological resources as trade-related development accelerates on the Northwest Coast of Canada.

Public Archaeology

Lorna Richardson, University College London

The growth of social media brings with it the ability for archaeological news to be shared and re-shared, re-shaped, reformed, and reinterpreted, within seconds. Sensationalist archaeological headlines makes great entertainment, and the nature of the Web means these stories do not go away. The information landscape of the Internet, especially when explored via search engines, privileges popularity over the 'low-circulation-high-quality' information that heritage professionals provide. Discrimination between 'authentic' credible archaeological information, and populist, inaccurate and misleading archaeological sensationalism, or even pseudo-archaeology, requires an ability to apply critical thought to information retrieved online. How do we, as professionals, promote our expertise, authenticity and authority to the Internet-using public? This paper will look at case studies of inaccurate archaeological information pitched as 'tabloid titillation' and entertainment online and will ask if new landscapes of participatory digital media can fundamentally threaten the authority of archaeological organisations and knowledge? Can the use of the Internet as a form of entertainment misrepresent of archaeological knowledge

in the public realm, and should we fear of the use of the Internet for the presentation of alternative archaeologies?

Developing ‘Crowd and Community-fuelled Archaeological Research’: methodological, technical and ethical challenges

Chiara Bonacchi, University College London

Daniel Pett, The British Museum

Andrew Bevan, University College London

This paper will reflect on crowd-sourcing and crowd-funding as methods for engaging already established communities of interest in archaeology alongside a wider network of contributors, not only to co-produce archaeological data, but also to co-design original new research agendas and micro-finance them. We will introduce and critically discuss any inter-related methodological, technical and ethical challenges encountered in the set-up phase of an AHRC funded project conducted as a collaboration between the UCL Institute of Archaeology and the British Museum. As part of the project, we are testing the use of crowd-sourcing to enable different kinds of archaeological enthusiasts to co-create archaeological data and knowledge, and to attract funding through individually small but collectively significant donations. The paper will address the issues arising from the initial stages of the research on two main fronts. Firstly, we will examine the technological methods employed to build the crowd-sourcing platform micropasts.org in order to support a wholly participatory, rather than merely contributory, model of community engagement with archaeology. The project will be using completely open source tools and software solutions such as Wordpress, CrowdCrafting (Pybossa) and Discourse. Data generated through this project will also be released under a Creative Commons licence (CC0) and will be amalgamated with relevant resources and repositories (for example the Portable Antiquities Scheme database). Secondly, we will illustrate the ethical and methodological challenges of developing a framework for the evaluation of our co-production efforts. For example, we will show how the tension between the need of allowing contributors to remain anonymous and that of gathering data for the study of participant motivations, attitudes and behaviour has been dealt with. We will also present the ethical considerations that have informed the choice of what methods to use for collecting, storing and analysing personal information about our contributors. Conclusions will offer insights useful to support researchers and practitioners with the desire of using crowd-sourcing to foster collaborative kinds of community archaeology.

Making community-driven, open source investment work in archaeology

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Benjamin Ducke, Independent researcher and software developer (IR/SD)

Modern archaeology invariably involves software, and in most cases also Free and Open Source Software (FOSS). Apart from the critical importance of source code availability for fully transparent and reproducible data processing, there are also obvious economic incentives for using free software. However, while archaeologists benefit from an ever-growing FOSS repository, investment into the same remains minimal, especially compared to what is routinely paid for proprietary, closed-source licensing fees. This is regrettable, as FOSS offers a superior platform for technological collaboration and an alternative, non-redundant investment model that is more sustainable in the long term. Comparatively small individual contributions, pooled together, allow a community of investors to develop a rich library of free software, tailor-made and without usage restrictions. In theory, these are ideal preconditions for the diffusion of modern technology among communities of professionals, academics and hobbyists alike. In practice, however, there still seems to be widespread doubt about the quality, cost and feasibility of FOSS development. Collaborative software development, from initial idea to usable program, remains a difficult task, not only in terms of mastering technological challenges, but also in terms of managing organisational complexities and social dynamics. Some FOSS projects fail because their initial design was too ambitious, others fail because they do not manage to attract a loyal base of supporters and simply run out of resources.

However, there is now more than sufficient evidence that a community the size of the archaeological one is well capable, in principle, of building its own “software commons” based on FOSS. This paper looks at the economics of open source software, with special consideration to the structure of the archaeological software market. Insights into the aspects of planning, developing and sustaining customised software development under open source licenses will be provided. Some important lessons learned from a decade of contributing to open source software projects will be shared, and typical pitfalls will be discussed. Supporting the arguments made in favour of FOSS investment, two successful projects of relevance to this session, the surveying tool “survey2gis” and the full-featured FOSS GIS “gvSIG CE”, will be showcased. This paper will provide the audience with some real-world facts on developing costs, time frames and socio-technological complexities that are hard to come by in the academic literature.

The ACCORD project: Archaeology Community Co- Production of Research Data

Stuart Jeffrey, Digital Design Studio, Glasgow School of Art

Sian Thomas, University of Manchester

This paper introduces the AHRC funded ACCORD project, a partnership between the Digital Design Studio at the Glasgow School of Art, Archaeology Scotland, the University of Manchester and the Royal Commission on Ancient and Historical Monuments of Scotland. The ACCORD project examines the opportunities and implications of digital visualisation technologies for community engagement and research through the co-creation of three-dimensional (3D) models of historic monuments and places. Despite their increasing accessibility, techniques such as laser scanning, 3D modelling and 3D printing have remained firmly in the domain of heritage specialists. Expert forms of knowledge and/or professional priorities frame the use of digital visualisation technologies, and forms of community-based social value are rarely addressed. Consequently, the resulting digital objects fail to engage communities as a means of researching and representing their heritage, despite the now widespread recognition of the importance of community engagement and social value in the heritage sector. The ACCORD project addresses this gap through the co-design and co- production of an integrated research asset that encompasses social value and engages communities with transformative digital technologies.

ACCORD is creating a permanently archived open-access dataset of community co-produced 3D digital models of archaeological sites and monuments, integrated with expressions of social value and contextual documentation. The project actively engages community groups that have ongoing relationships to heritage places in the process of creating 3D records and models of those places. With the support of visualisation technologists, community engagement practitioners, and experts in social value, each community group will design, direct and produce their own 3D objects. The use of digital technologies to enhance and generate forms of social significance will be an important outcome, adding distinctive value to existing heritage assets and our understandings of them. Evaluation will include a review of the transformative aspects of the process, investigating changes in attitudes to 3D recording technologies during the life of the project, as well as the forms of significance, authenticity and value acquired by the resulting 3D objects. Ultimately, through the co-production of an open-access dataset, and the creation of a ‘community of communities’ engaged in sharing skills and experiences, ACCORD seeks to broaden capacity for the creation and reuse of digital visualisation technologies in community heritage activities and research.

Create Once, Consume Anywhere: Curating Accessible Archaeological Content for Mobile Apps

Michael Charno, Archaeology Data Service

Ed Zukowski, British Library

The Archaeology Data Service (ADS), founded in 1996, is a national repository for digital data from the UK historic environment sector. The ADS has a mandate to provide a digital repository for outputs from research funded by national funding bodies within the UK, which has led to a considerable archive of data and metadata related to the archaeology of the UK. While preservation is one pillar of responsibilities at the ADS, dissemination also plays a key role in the ADS's activities. The ADS supports a number of methods for disseminating data, most obviously via its website [<http://archaeologydataservice.ac.uk>], but also via OAI-PMH targets, SOAP Web services, Linked Open Data, and even the humble CD-in-the-post. Mobile apps were recently investigated to compliment the existing methods of dissemination for ADS data. Mobile apps in particular were seen as a more accessible way to engage with the general public, a group which the ADS usually does not specifically target. The development of the app, «Archaeology Britain» was a collaboration between the British Library and the ADS to create a general audience app with unique and interesting content from both organisations. Archaeology Britain contained curated content to try and portray rarely seen perspectives of British archaeological sites. The content within the app was a combination of open data from the ADS and «closed» data from the British Library and other heritage institutions. Disseminating this kind of mixed content is a function the mobile app as a platform is well suited. Until an open data utopia is realised, it will be argued that mobile apps can provide greater access to «closed» data, counter intuitively due to the proprietary nature of their distribution. Providing easy access to «closed» data is an important aspect of engaging with the community and telling them the archaeological story. Before developing Archaeology Britain, the ADS supported a mobile app based on the England's Rock Art archive, which comprised of outputs from a volunteer project. This experience was a precursor to the development of Archaeology Britain and lessons from that project will be explored. This paper will then go on to discuss the process of producing an archaeological mobile app for a general audience, from the planning and inception to the release and promotion. Many challenges were presented while trying to curate an app targeted at the general user instead of the more academic user the ADS usually targets. Practical lessons of taking this often complex ADS content and curating it for a general audience will be discussed. A more controversial topic, platform choice, will be visited as well as the fallout, which ranges from user exclusion to fanboy rage. Many of these lessons aren't specific to mobile apps, but rather apply to a broader objective of disseminating archaeological knowledge and information to the public.

Co-Production of alternative views of lost heritage: Crowd-sourced Photogrammetry in Heritage recording

Andrew Wilson, School of Computer Science, Bangor University

Jonathan Roberts, School of Computer Science, Bangor University

Raimund Karl, History, Welsh History and Archaeology, Bangor University

Bernard Tiddeman, Computer Science, Aberystwyth University

Ben Edwards, Department of History, Politics and Philosophy, Manchester Metropolitan University

Being able to examine objects, sites and buildings three-dimensionally is a crucial element in interpreting many, if not most, heritage assets. This is reflected in modern heritage survey and recording techniques like topographical surveying, ground-based and/or airborne laser scanning of objects, sites and buildings, or three-dimensional geophysical survey methods (e.g., GPR), which are increasingly being used in archaeological fieldwork. There is a huge opportunity to put these metric-sensing devices into the hands of the public to enable more crowd-sourced data. Crowd-sourcing in this way, has vast potential for heritage. It could enable a comprehensive coverage of metric scanning that would be impossible to be achieved by one or two research groups. It also encourages the wider public to become excited over our heritage, and 'get involved' in our historical environment. On the one hand, while the cost of (say) laser scanners are decreasing rapidly they are still viewed as a research tool, or maybe a keen hobbyist, and are out-of-reach of the general public. On the other hand, the digital camera has become ubiquitous (everyone now has a camera); with smartphones demonstrating mega-pixel counts on their cameras there is a huge opportunity to utilise cameras to perform metric survey. Modern photogrammetric software solutions allow automated 3D rendering of objects from several 2D pictures taken of the object at random angles and distances. Using such solutions to create 3D renderings of excavation trenches and other objects has been successfully tested in the past few years (Roe 2010; Doneus *et al.* 2011; Verhoeven *et al.* 2012). This research has confirmed that the results are sufficiently accurate for archaeological recording interpretation. While such solutions have successfully been applied to current archaeological excavations and surveys, they have not yet been used by a wider audience, for crowd-sourcing of metric data. Naturally, not every suite of photos creates a good 3D model and therefore not every user's data will provide good metric data. However, with an online tutorial and guidance of best-practice, we believe that it is possible for a wider public to achieve high quality results. In addition, with the Wikipedia model of peer reviewing we believe that the 'management of quality' would be self-regulating, and that the better versions of a particular asset would be kept. Wikipedian's pride themselves on keeping

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quality and accurate articles, and likewise we propose the same pride and quality will occur here. The Co-Production of alternative views of lost heritage project aims to use photographs taken by local community to create a comprehensive and accurate 2D, 3D and geo-location record of local heritage to provide a research-based asset of enduring value.

Appendix D Examples of fieldnotes

Figures 34 to 37 provide examples of the fieldnotes used whilst working with participants. These were typed in long-hand shortly after each activity, and then analysed within one month of the activity occurring.

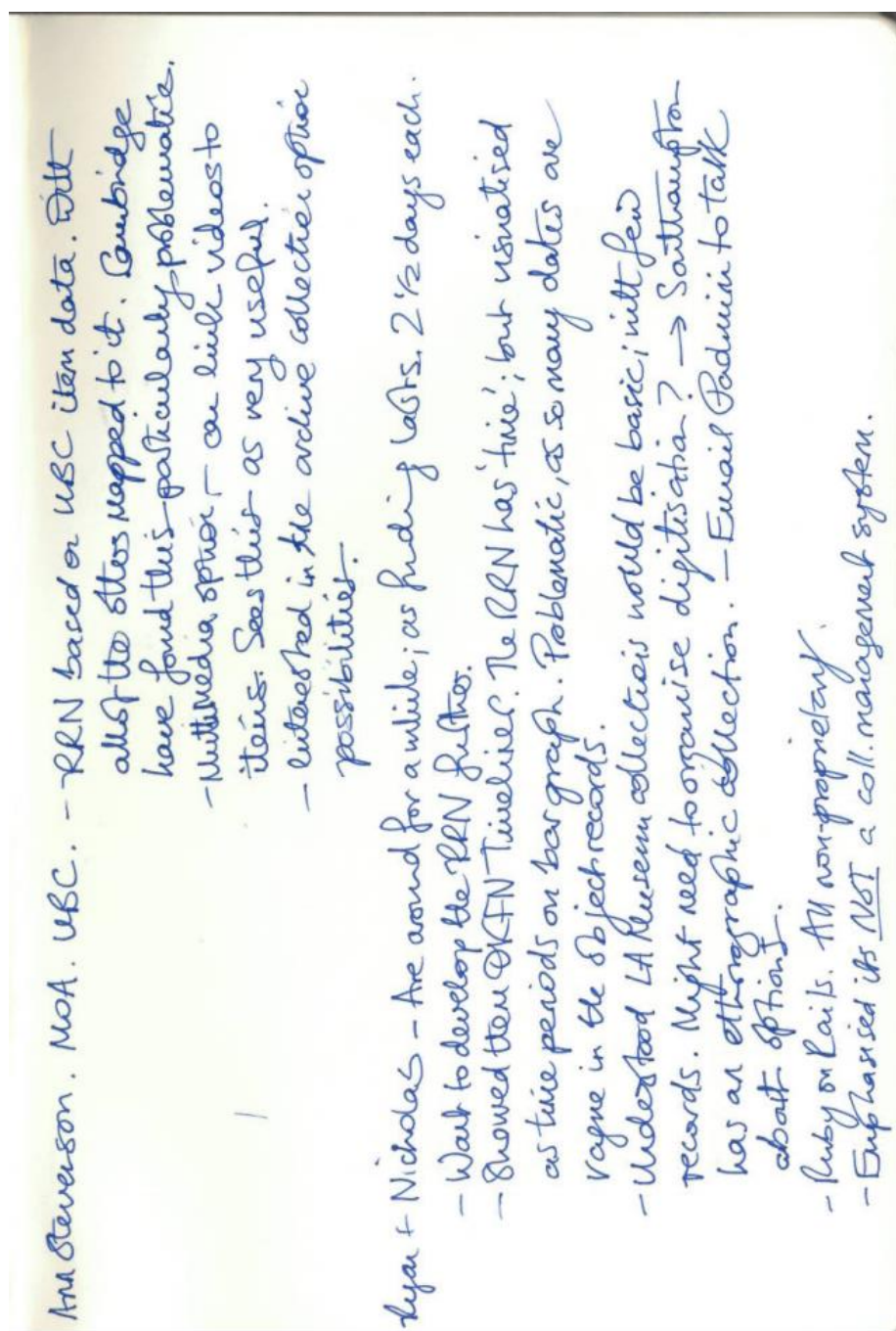


Figure 33 - Some fieldnotes from a semi-structured, in-depth interview with Ann Stevenson, MOA, Ryan Wallace, RRN developer and Nicholas Jakobsen, RRN developer.

Ryan + Nicholas - Culture Code.

- MOA, UGC.
- Mobile CSS; decided against app. → no project access.
- Kiosk's are for Chow case of the data. Used in the museum situated next to display cases. Could be used at sites? On iPad?
- UGC can be added through 'comments' only. But this is still manually checked & then added to items.
- Original item record displayed alongside the RRN mapped record.
- Talked about API from BM. They can't use it as not good enough.
- LA Museum idea. Seemed enthusiastic. - want to evidence usefulness of RRN.
- CRM export.
- Prefer online data.
- Not GNU Public license; to maintain RRN structure; but some modules have been released to GitHub.
- adding their own categories for data field. e.g. Manual → Deer → Bone. What is the history they're using for this? Can it be mapped to CIDOC-CRM?
- Dead only to go through the steering group; but can add additional subjects.
- Discussed Residential Schools projects → and the use of the archive collection function to support folders? Would this work?

Figure 34 - Some fieldnotes from a semi-structured, in-depth interview with Ann Stevenson, MOA, Ryan Wallace, RRN developer and Nicholas Jakobsen, RRN developer.

Jude. - Remember the? project.
 Photos - started w. 130 from Barvarian
 camp - then added 40 (?) from NY
 collection
 reports to them w. email
 whenever they add a
 news story / interview which
 uses one of their
 collection.
 - Launched through website
 + Facebook page. Comments left on
 Facebook page
 lead to identification.
 300 + so far.
 130 + stories. (= bee families)
 - does an interview when finds them. (for relatives)
 - When you find one, there is usually a
 community.
 - eg. Simon + Jan (2 sisters) in France.
 Tibor. etc... sometimes doesn't lead
 to more.
 - It's slowed to 1 a year
 now. - 1 in Brazil.
 - About to do more outreach.
 - Roadshows - called 'never again'
 invites local Remember the Children to the
 roadshows.
 Get objects from there - But difficult for
 people to give up.

Figure 35 - Some fieldnotes from a semi-structured, in-depth interview with Jude Richter, USHMM Historian.

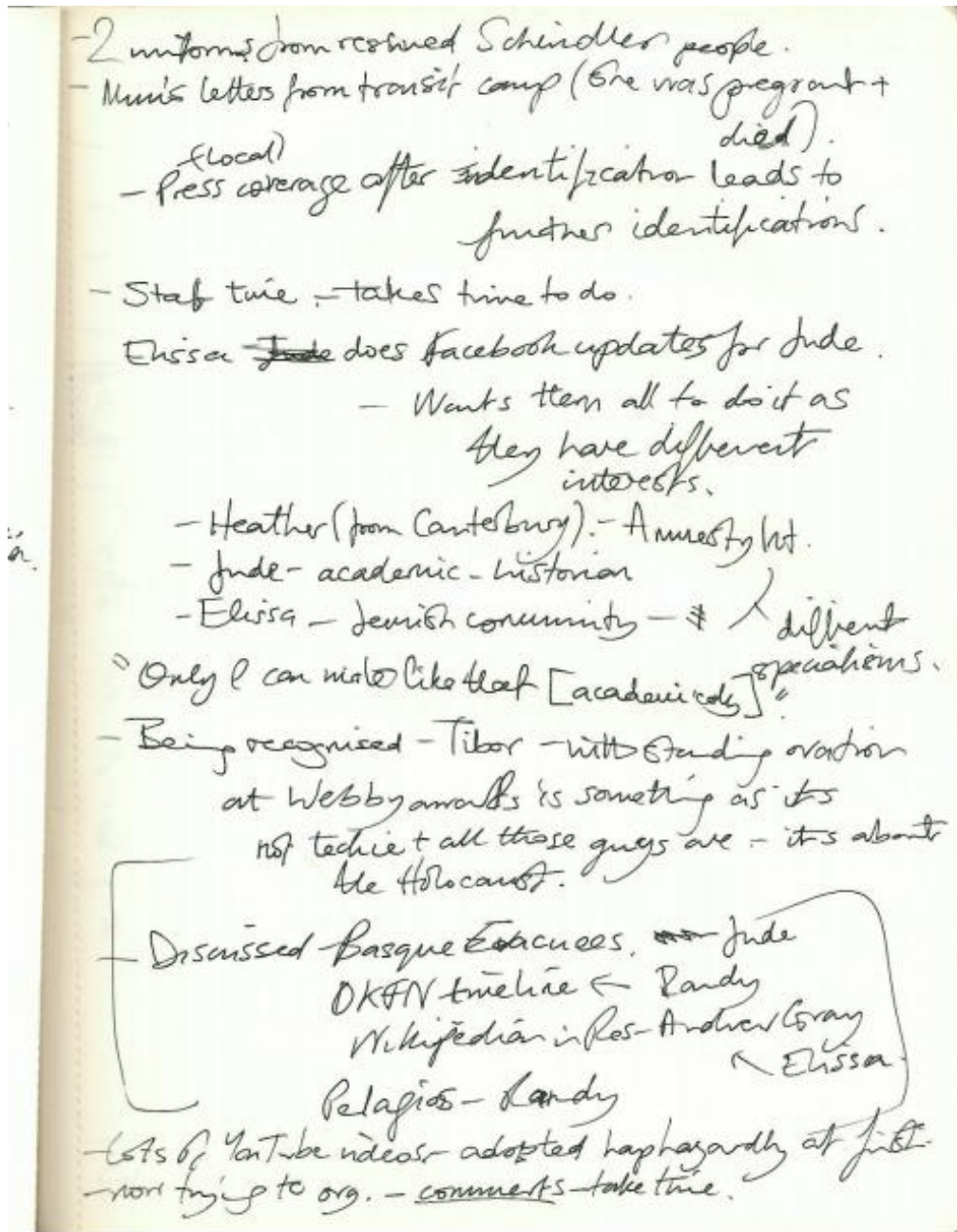


Figure 36 - Some fieldnotes from a semi-structured, in-depth interview with Jude Richter, USHMM Historian

Appendix E Digital skills audit at HCT

E.1 Initial analysis of digital literacy skills

At the beginning of each initial interview with an HCT volunteer, a digital literacy assessment was made, in line with the methodology used for the UK Government's Digital Landscape Research (2CV, 2012). This methodology identified six groups of digital skills, and these formed the basis of the initial categorisation of this study's participants. The skills are summarised in table 16 below, and the placement of the groups along a trajectory of Internet skills and knowledge in relationship to positive perceptions of the Internet are shown in the figure 37 overleaf.

Grouping	Perceptions of Internet	Internet skills
Group 1: Actively disengaged	"Negative perceptions of the Internet."	"Low or no computer and Internet skills."
Group 2: Reluctantly online	"Resentful of the Internet."	"Only basic skills, rely on family."
Group 3: Destination users	"Love what they know of the Internet, fear the rest."	"Can do specific tasks, but lack wider skills."
Group 4: Willing but unable	"Very positive attitude toward the possibilities of the Internet."	"Lack skills, but are willing to learn."
Group 5: Learning the ropes	"Very positive about the benefits of the Internet."	"Committed to learning new skills."
Group 6: Confident explorers	"Highly skilled and confident across a wide range of websites."	"Evangelical about the Internet."

Table 16 - Table based on groups of Internet users (2CV, 2012).

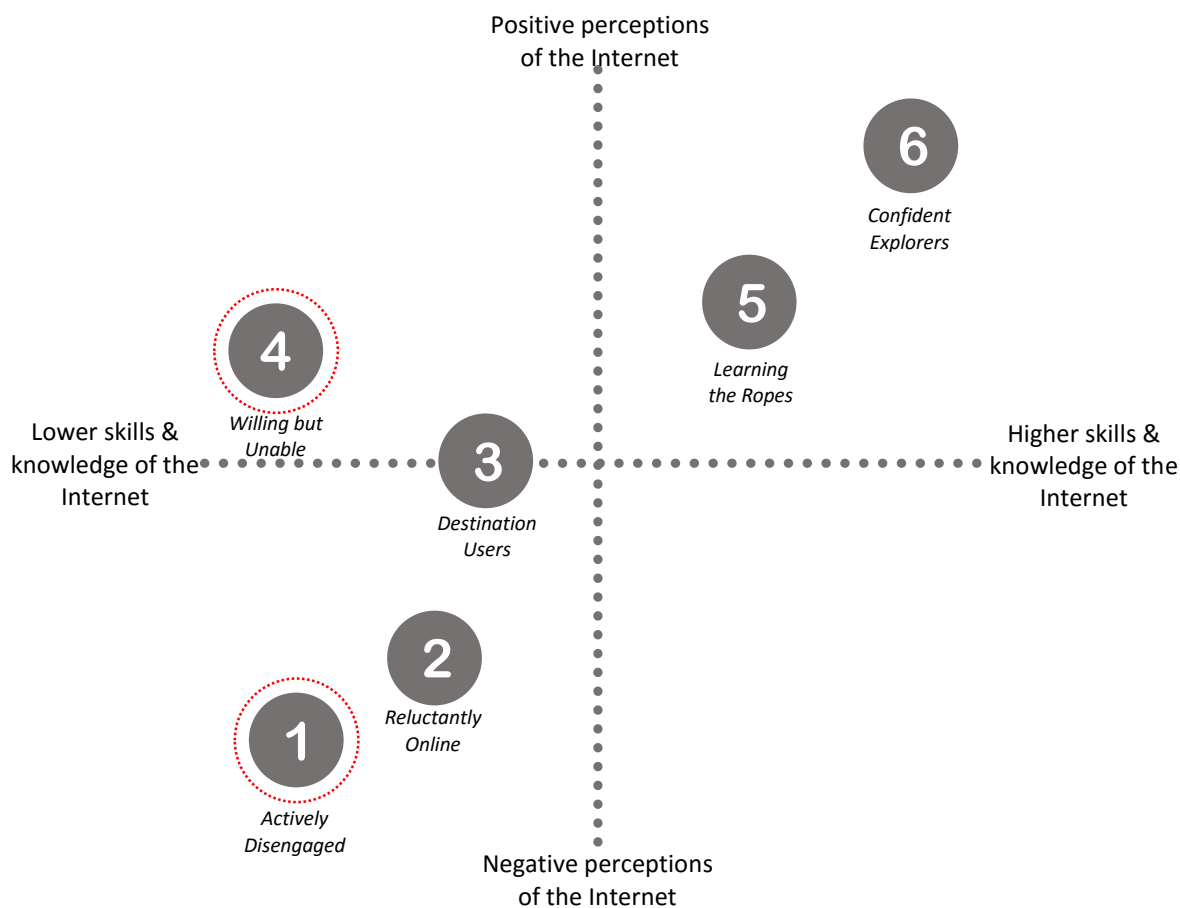


Figure 37 - Groupings of people who do not use government transactional services or information online (2CV, 2012: figure 9). Users with a red dotted circle around them are offline.

Applying 2CV's groups to the study's participants provided a reference point for discussions held within interviews and as part of the general action research process.

The digital skills were derived from digital skills charity Go ON UK's definition of basic digital skills (Go ON UK, 2014). As these are outlined for both individuals and organisations, they were the most appropriate for the identification of barriers to Web use within an organisation. The skills that participants were asked to provide a level of experience with are outlined in table 17 overleaf.

Category	Description	Actions for individuals	Actions for organisations
Managing information	Find, manage and store digital information and content	• Use a search engine to find the information you need • Search for deals on comparison websites • Bookmark useful websites and services you use often • Store data on a device or in the cloud	• Store digital information on suppliers and customers • Search for new suppliers to find the best deals • Use simple analytics to understand who uses your website and when • Discover potential growth opportunities for your business
Communicating	Communicate, interact, collaborate, share and connect with others	• Keep in touch using email, instant messaging, video calls and social media • Post on forums to connect with communities • Leave feedback on shopping websites and services providers about purchases or experiences	• Maintain customer and client relationships • Use social media to promote your business and connect with new customers • Improve your customer service by providing accessible product information and answers to FAQs
Transacting	Purchase and sell goods and services; organise your finances; register for and use digital government services	• Complete a Universal Credit application • Order your shopping • Book your travel • Manage your bank account • Understand and use marketplaces to buy and sell	• Maximise your selling potential through a website • Apply for government business permits and licences and save time • Manage invoices and accounts • Receive payments or donations • Protect yourself from fraud or scams by recognising secure websites
Problem-solving	Increase independence and confidence by solving problems using digital tools and finding solutions	• Teach yourself simple tasks using video lessons • Use feedback from other Internet users to solve common problems • Access support services such as 'live chat'	• Save on business travel and be more efficient by using video conferencing • Quickly understand which products and services work based on online feedback • Use simple analytics to understand who uses your website and when

Category	Description	Actions for individuals	Actions for organisations
			● Get quick, effective solutions to problems from safe, accurate sources
Creating	Engage with communities and create basic digital content	● Create a social media post ● Create a text document (e.g. CV) ● Create and share a photo album ● Create and share feedback using shopping websites	● Create content (pictures, logos, text) to promote your organisation and reach customers ● Create communities around your services and products using social media to engage with customers ● Create help resources and guides for employees for improved employee skill levels

Table 17 - Go ON UK – Basic Digital Skills definition (Go ON UK, 2014).

E.2 Digital Life Survey

The initial data collection phase took the form of a survey, which is included overleaf. The tasks listed map directly to the digital literacy skills outlined in table 15 on the previous pages.

Please tick any of the statements below that are relevant to you. This survey aims to find out how useful the Internet is in your everyday life. Thank-you for participating.

- ☐ Use a search engine to find the information you need
- ☐ Search for deals on comparison websites
- ☐ Bookmark useful websites or services you use often
- ☐ Store data on a device or in the cloud
- ☐ Keep in touch using email, instant messaging, video calls or social media
- ☐ Post on forums to connect with communities
- ☐ Leave feedback on shopping websites or services providers
- ☐ Complete an online application
- ☐ Order your shopping
- ☐ Book your travel
- ☐ Manage your bank account
- ☐ Understand and use marketplaces to buy and sell
- ☐ Teach yourself simple tasks using video lessons
- ☐ Use feedback from other Internet users to solve common problems
- ☐ Access support services such as 'live chat'
- ☐ Create a social media post
- ☐ Create a text document (e.g. CV or a letter)
- ☐ Create and share a photo album
- ☐ Create and share feedback using shopping websites

Is there anything else that you do that you would like to mention?

E.3 Digital Life Survey results

Figure 38 below presents the results of the survey.

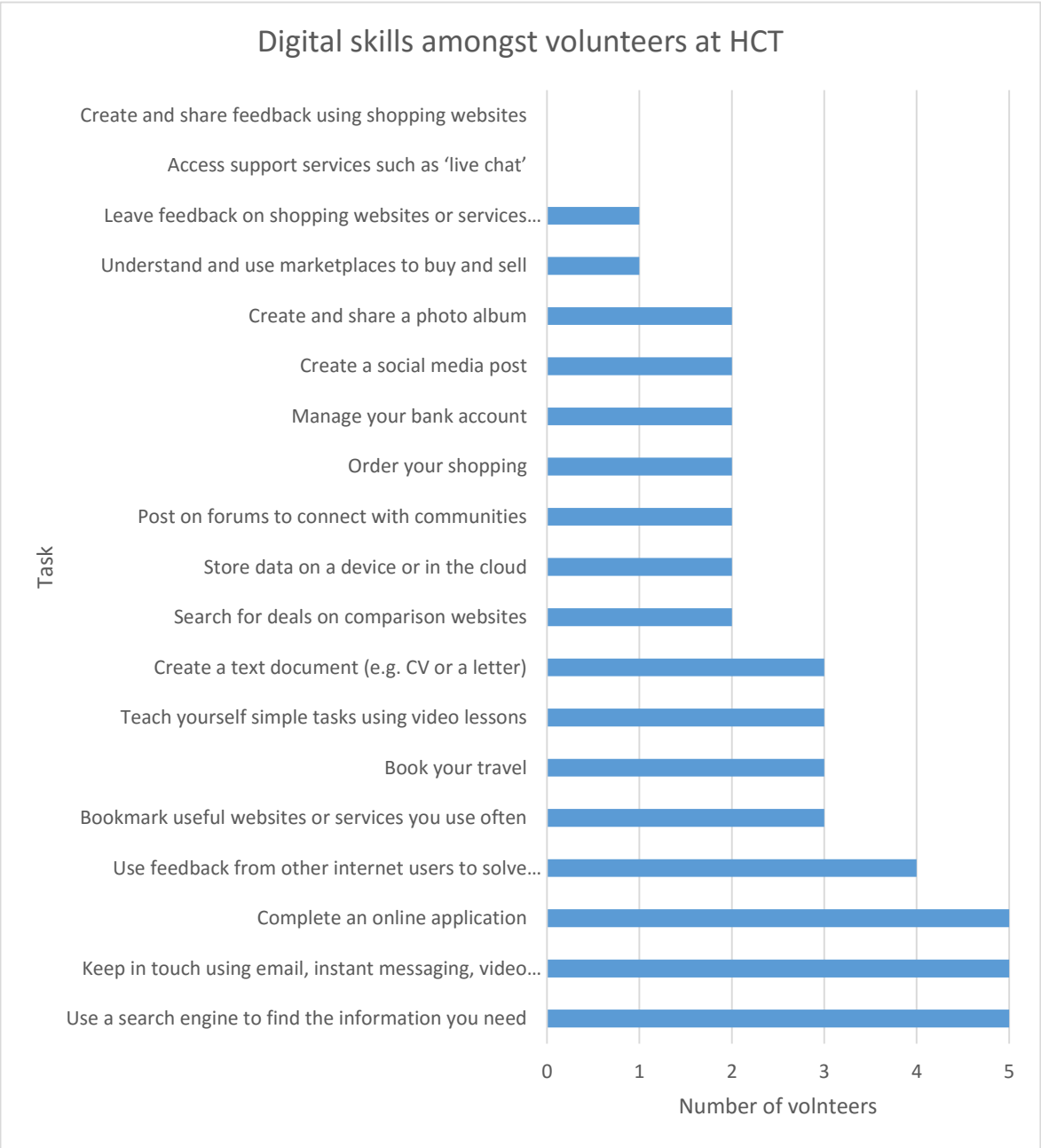


Figure 38 - Digital Life Survey results

These responses can be analysed by using the Go ON UK categories. Figure 39 overleaf illustrates this.

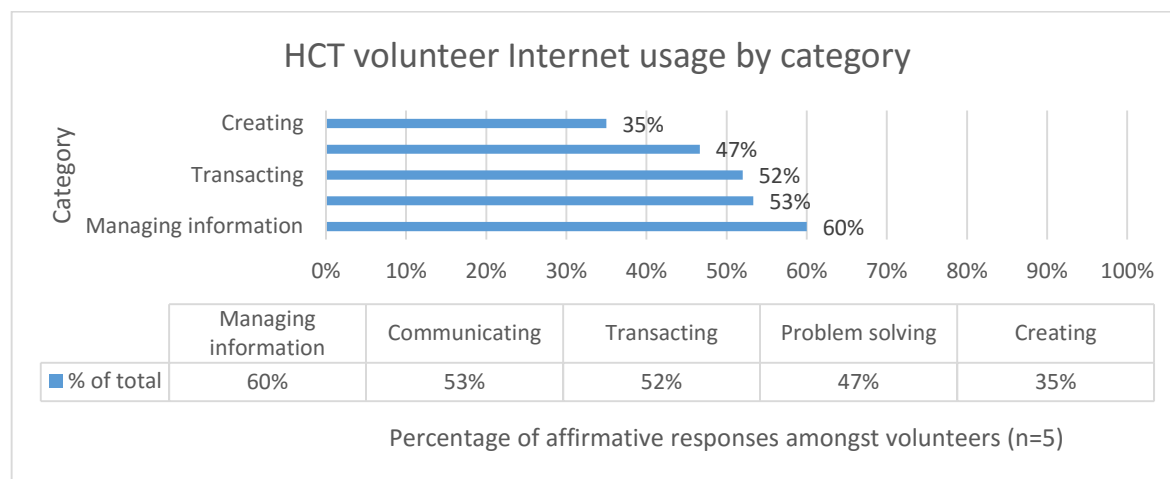


Figure 39 - HCT volunteer Internet usage by category

The results indicate that there is less experience amongst volunteers in using the Internet in the areas of problem solving and creating. Referring back to the Go ON UK category descriptions for these categories (see table 14 above), there results a list of potential activities that volunteers could experience when at HCT in order to develop these skills:

- Problem solving:
 - Save on business travel and be more efficient by using video conferencing
 - Quickly understand which products and services work based on online feedback
 - Use simple analytics to understand who uses your website and when
 - Get quick, effective solutions to problems from safe, accurate sources
- Creating:
 - Create content (pictures, logos, text) to promote your organisation and reach customers
 - Create communities around your services and products using social media to engage with customers
 - Create help resources and guides for employees for improved employee skill levels

These skills are incorporated into the design of proposals for implementation at HCT in Chapter 7 of the thesis. In the HCT context, these skills could be developed through different tasks, such as creating videos to share on social networking platforms.

E.3.1 In-depth analysis of digital skills

The survey responses were analysed and participants were then invited to take part in an interview.

From the results of the initial survey, the volunteers at HCT seem to be predominately group 3 or 4 Internet users. They are predominately destination users who enjoy the parts of the Internet that they do use, but are nervous to use other parts, and are able to carry out specific tasks but lack wider skills. The proposed activities in Chapter 7 of the thesis take this into consideration and attempt to support the needs of group 3 users.

E.3.2 Interview strategy

Interviews were semi-structured and around 30 minutes long. Each interview began with a description of my motivations as a researcher, and my research at HCT so far. During the interviews, notes were taken for analysis later on. Interviews were also recorded because the environment within which they were conducted meant that there were often interruptions and distractions and the audio was therefore revisited after the meeting in order to record any pertinent comments that may have been missed if there had been no back-up. All transcriptions occurred within two weeks of the interview, in order to improve reliability of interpretation.

E.3.3 Question schedule

The questions focused on finding out how the current use of social media by the archaeology team was being received and to attempt to identify future opportunities for social media use. The questions attempted to build on the findings from the digital skills survey and focused on one experience in particular. All of the volunteers had been involved in the Hampshire Archaeology Wordpress blog that had been running for one year and was managed by the Curator of Archaeology (CoA). This social media use-case seemed to be a useful focus for conversations about Web use.

1. *Can you tell me about how you became a volunteer here at HCT?* [interested in identifying motivations]
2. *What kinds of things do you do here?*
3. *What do you enjoy the most? E.g. Learning new things?*
4. *Do you visit your local museum? How regularly?*
5. *Do you visit the other HCT museums? What about non-HCT museums?*
6. *Best bit about those museums?*
7. *Have you written a blog post for Hampshire Archaeology?*
8. *How was that experience? E.g. Did it take up a lot of time?*
9. *Do you read the Hampshire Archaeology blog?*
10. *Do others you know read the blog?*

11. Do you read other blogs?

E.4 Analysis

The following analysis is based on the responses of all of the archaeology stores volunteers at HCT. The Day of Archaeology 2015 field experiment is a direct response to the analysis contained within this appendix.

E.4.1 Exposure to social media through the volunteer experience

For all of the volunteers in the archaeology stores, the Hampshire Archaeology blog seemed to be the first experience with blogging. The blog posts were seen to be positive experiences that added to the experience of volunteering more generally, as volunteer B commented:

“I like the variety. I like doing a bit of research to write a blog or something or a display or something like that. Sometimes we sort things out and have a look at objects.” (Volunteer B, 2nd July 2015, *pers comms.*)

Variety of tasks and access to objects seemed to be the key focus for the volunteers:

“I like having a variety. I haven’t been involved too much in what they do over there [sorting boxes in the stores]. I’m more often doing desk work. I spent a lot of time about a year ago doing work on the catalogue and things like that.” (Volunteer A, 2nd July 2015, *pers comms.*)

Access to objects is a significant part of volunteer experience in heritage more generally (Vogelpoel, *et al.*, 2013). There was little evidence of the volunteers using blogs themselves, although one did describe a magazine-like website that sounded like it may be a blog. The response for most of the group however was that there was low awareness of how to access blogs about archaeology:

“No. I don’t know what’s out there! I don’t know [how to find them].” (Volunteer B, 2nd July 2015, *pers comms.*)

Comments also seemed to indicate that there was a time pressure due to other commitments and that browsing content online was low on the list of places to experience archaeology:

“I get Current Archaeology, but I never read it. I look at the pictures, or I never look at it... She’s [one of the other volunteers] quite good. She does read hers and then she mentions it. And I think, would have enjoyed to have read that!” (Volunteer A, 2nd July 2015, *pers comms.*)

The printed magazine format seemed to be the most popular way to find out about archaeology:

“No, I don’t read blogs generally. I do read archaeology magazines though.” (Volunteer D, 18th July 2015, *pers comms.*)

However, most of the volunteers read the blog that they were involved in producing and commented that they had enjoyed finding out about archaeology in this way. This may indicate that there is potential to provide a space for volunteers to experience other online spaces within which to engage with archaeology, and that the HCT team could facilitate this.

E.4.2 Skills development

Several of the volunteers felt that participating in the Hampshire Archaeology blog had contributed to developing skills, and had resulted in increased knowledge about the archaeology of the area:

“I learnt loads. We’ve come across some amazing trauma, just by doing that project really. By opening boxes. And also, it’s just fun to learn new things.” (Volunteer B, 2nd July 2015, *pers comms.*)

“I have learnt a lot and been able to develop my research skills too.” (Volunteer E, 25th June 2015, *pers comms.*)

Skills development, and use of existing skills is an important factor in volunteer experience (Brewis, *et al.*, 2010). As well as learning skills such as research, the opportunity to work with the archives themselves was a strong motivator:

“And it’s really fascinating to be behind the scenes as well.” (Volunteer D, 2nd July 2015, *pers comms.*)

This seems to indicate that future social media use could incorporate an emphasis on access to collections. The volunteers enjoyed writing the blog posts and were proud of their contribution to the articles:

“I’ve written quite a few blogs.” (Volunteer B, 2nd July 2015, *pers comms.*)

“I do enjoy doing it. I did a lot of cemeteries. I got a bit bored of cemeteries though.” (Volunteer A, 2nd July 2015, *pers comms.*)

For many, it was the first experience of writing for a public audience, and this seemed to be something that most had recognised as a valuable skill to have gained:

"I have helped my husband with stuff to go on a newsletter... And I've done one or two things for the parish magazine." (Volunteer A, 2nd July 2015, pers comms.)

The experience of copy-writing was enjoyed all round, with comments such as this statement by volunteer B highlighting this enjoyment:

"Under time pressure! You know, Dave [Curator of Archaeology] will say something like: today you've got to get that. And then you know you've got to right, skim read the report, get what you can out of it, you know, write it. 500 words! You know, It would actually be [a training experience]! To make it accessible. Because the idea is that you are reaching people who are on the edges of being interested." (Volunteer B, 2nd July 2015, pers comms.)

This enjoyment seems to be a central motivation for continuing to volunteer in the archaeology stores, which is supported by research into the topic (Orr, 2006), and is something that future social media use could emulate. The challenge of condensing the knowledge that the volunteers had gained into an article format had led to consideration of the nature of the archaeology, and some comments pointed to this being an experience that was valued:

And you have to try and find something that's a little bit different about your site. Like the most interesting find. Something that will photograph well. That might not be that representative of the site itself, but it makes a good story. Otherwise it's just a picture of a few skeletons in the ground. (Volunteer A, 2nd July 2015, pers comms.)

"Thinking of ways to present the site that you have been reading about can be challenging. I like to look at things from a different angle. To find the entertaining aspects of the topic." (Volunteer C, 18th June 2015, pers comms.)

The volunteers had not been involved in uploading the articles to Wordpress. This task had been carried out by the CoA, and there was a certain amount of mystery associated with this part of the process:

"I don't do any of the posting it. Someone has to do that. I write it, and select the illustrations. And then all the rest just happens." (Volunteer B, 2nd July 2015, pers comms.)

When asked whether they would be interested in being more involved in the uploading process, the volunteers all replied that they did not think that they would enjoy the task. In response to *Would you like to use the blog yourself?* this is a typical response from volunteer B:

“No, not really. Because I like the research bit. It’s just a mechanical process isn’t it really? I guess you have to manipulate it, sort it out on the page I suppose. It’s skilful, but no, it doesn’t appeal. It’s editing.” (Volunteer B, 2nd July 2015, *pers comms.*)

If social media were to be used on a more regular basis by the team, the editorial process would need to be kept to a minimum, or be undertaken by paid staff, and the user experience would need to be easy and quick.

E.4.3 Technical skills development

The Wordpress articles that the volunteers have been writing include images that have been created alongside the text. The photography seemed to be something that the group were interested in, although only as a way to achieve the desired end result. There did not seem to be much evidence of a desire to develop photographic skills:

“I’ve had lots of training and things through Wiltshire [Museum]. They used to be quite good at sending their volunteers on training. Photography and things. I enjoyed that.”
(Volunteer A, 2nd July 2015, *pers comms.*)

“I’ve never done much photography, like most people. I’d like to do it if I got the chance.”
(Volunteer A, 2nd July 2015, *pers comms.*)

“Yeah, Dave’s shown us how he does that. He produces a better picture than I can! He just does it once. We’ve had a go at that.” (Volunteer B, 2nd July 2015, *pers comms.*)

Incorporating photographic skills development into a workflow for using social media may be appealing to volunteers. When asked if they had personally photographed the objects that appeared in their articles, volunteer A responded:

“Yes. Although, quite often what is more likely to happen is that I do the writing and then Dave finds the photos afterwards. But sometimes I have gone through a whole load of transparencies for the site and talked about a few of the transparencies and put them through the scanner to get some pictures.” (Volunteer A, 2nd July 2015, *pers comms.*)

The time involved in digitising materials was commented on:

Sometimes you have loads and loads and loads of transparencies to go through.
(Volunteer A, 2nd July 2015, *pers comms.*)

Feeling about this could be improved if the impact of the digitisation were more positive on the collections themselves. The volunteers commented that an activity that they had spent some time conducting as part of the preparations for the articles was digitisation, as volunteer B says:

“Scanning, obviously slides. So going through the archives of pictures, and that also has you know built up the database here. Things that are photographs.” (Volunteer B, 2nd July 2015, *pers comms.*)

Volunteer B commented that the digitisation as part of the article preparation was creating a digital record of the sites that the articles covered:

“And then, yes, so we’ve now got another database on there which is now, site by site. And we’ve got a site which we’ve normally written a blog for and you’ll have the photographs that you’ve taken, you know scanned in, so there’s a hotchpotch. Because you don’t have time to do the whole lot. But a hotchpotch. You know online. So the stuff is there... It’s not sophisticated. It could be I guess. It could be an overview of what is in the collection.” (Volunteer B, 2nd July 2015, *pers comms.*)

This seems to represent a significant opportunity for the archaeology stores, to extend the legacy of the work being done for the blog posts, to improve the digital records of the sites. This could be shared via social media and would be a good way to acknowledge the contribution that the volunteers make to collections interpretation.

E.4.4 Research online

The Web was used in a limited capacity by the volunteers as part of their research for the blog posts, but most work was conducted using archaeological reports, both published and unpublished:

“Yes, I wouldn’t normally use Wikipedia, but you can’t think of a word or anything. But sometimes just to jog your memory of the period of somethings. Sometimes I can get hold of the academic journals. Occasionally. Online. I suppose. Or I go down the end to some of the older journals there. We’ve got a good set of the earlier versions, you know the antiquarians.” (Volunteer A, 2nd July 2015, *pers comms.*)

“Sometimes I do look up some of the references to see if there’s anything extra. There seldom is.” (Volunteer E, 25th June 2015, *pers comms.*)

The act of searching for evidence for the posts was seen to be an enjoyable part of the process:

"Maybe that's why it takes me so long. Looking at the additional stuff. Looking at that."

(Volunteer A, 2nd July 2015, *pers comms.*)

Supporting this kind of serendipitous experience of information gathering occurring on the Web could potentially be an entertaining add-on to the volunteer experience, and could aid long term retention of volunteers (Hyde, *et al.*, 2014).

E.4.5 Access to the collections

Some of the volunteers indicated that access to the archival materials was as, if not more, important for their experience as a volunteer than the artefacts. The contextualisation of the objects seemed to be of central importance:

"It's a good thing that we've got a lot of the excavation reports and that we've got a lot of journals and things." (Volunteer A, 2nd July 2015, *pers comms.*)

I'm just sort of finding out about that [OASIS and grey literature]. I was doing something for Dave I think. Because actually doing the blogs was how. That's something new that we've been doing here. And actually that's how. (Volunteer B, 2nd July 2015, *pers comms.*)

When asked what they had particularly enjoyed, one volunteer commented:

"It's the blogs. And that's good because it takes you to all these different sites. We started off just doing burials but its expanded now to other things. And that has involved exploring some grey literature. I can't remember what for now. So I'm learning that there are those things out there now." (Volunteer B, 2nd July 2015, *pers comms.*)

The blog posts had been a positive experience it seems from the interviews, because they offered a way into the collections that offered a rich, multi-faceted experience.

There was an awareness that the archives needed to be more accessible, and the experience of researching to write a blog post was identified as a way to achieve this:

"The reports are usually quite a long time afterwards. When I was young when I dug a lot. I would say that I always had that experience. I would dig. Love it. Find things. But one of the sites I worked on still isn't published. It was the same then. I don't think probably I ever read an excavation report properly. Until I came here." (Volunteer B, 2nd July 2015, *pers comms.*)

This experience could be replicated online through social media. The ADS online grey literature collection for example could offer a test bed to see if the research experience of the HCT volunteers could be replicated in a less involved format online to develop digital research skills, as well as to improve the interpretation of the collections.

The volunteers had not been given advice on the audience for the blog, but had decided that it was for a general audience, rather than a more specialised audience such as themselves:

"I would say it's more for people who are new to it." (Volunteer B, 2nd July 2015, pers comms.)

"So I mean you don't – it doesn't start from real basics. I mean you assume that they are people who would know what Anglo-Saxon is, although with the prehistory you would put a little date range in if you were talking about the Bronze Age or something. And with the early ones we used to do a really brief thing about – you know if it was barrows, you'd do a really brief introduction about the Bronze Age and barrows. And what they were. And then get into the specifics of the monument that you were talking about. Not everyone wants to go into things in much detail!" (Volunteer B, 2nd July 2015, pers comms.)

The copy was being written for an audience that had an interest in archaeology, but the volunteers assumed that they were not an audience, despite evidence from all of the interviews being that they enjoyed reading it. This is a positive phenomenon as it shows that the blog is appealing to both general audience as well as an audience made up of archaeology enthusiasts such as the volunteers. This is evidence of the high quality of the work that the volunteers are doing.

One of the volunteers commented that the blog could potentially be an entry point into the collections, to encourage visits to museums or to the stores:

"And also at the end of the blog, or whoever's written it, usually Dave, adds at the bottom, you know, where you can see those items. What museum they're in. so you've got that next step. And you can go to the museum, and you can see the objects that we've been talking about so people are invited to take that next step." (Volunteer B, 2nd July 2015, pers comms.)

This connection between real world collections and digital content could be made explicit in social media use by including signifiers for the physical collections (perhaps including a location of the genuine artefact in the metadata of an artefact image).

E.4.6 Acknowledging contributions

All of the volunteers expressed pride in the work that they had produced:

“Well we have emailed round the local history people. And my husband always looks at them. Because he usually goes online before me and he usually mentions that there’s another one up.” (Volunteer A, 2nd July 2015, *pers comms.*)

“They thought that the blogs were useful as a succinct – the comments were really nice. And implying that it was a really good – um –accessible sort of collection. Making it more accessible. And the fact that those little bogs were quite a good way in. so you know: “oh so they’ve got the Mount Pleasant Anglo-Saxon stuff there!” (Volunteer D, 18th June 2015, *pers comms.*)

“Yeah, yeah, all of my family. All my friends. When it first started I said, you might want to have a look at this, its quite interesting. My dad reads it. You know, loads of people now. And local people who are my friends say, you know, I never knew there was so much. Every Monday.” (Volunteer B, 2nd July 2015, *pers comms.*)

“Yes! One of my friends sent it to her daughter’s husband’s fathers, who’s an ex-professor. And he’s very into archaeology. And his first comment was: “gosh this looks very professional and I shall enjoy reading this.” And that was lovely. And you think. Ooo. People are reading this. It’s lovely.” (Volunteer B, 2nd July 2015, *pers comms.*)

The blog seems to represent a noteworthy outlet through which volunteers can express their contribution to HCT. This fits with research into volunteer motivations (Holmes, 2003). This seems also to indicate that acknowledgement of contribution could be incorporated into social media activities, but also that it could be a notable method to build advocacy in the volunteer scheme more generally.

E.4.7 Expertise of curator

Throughout all of the interviews, one theme was recurring. The expertise of the CoA was acknowledged several times and his part in the editorial process of the blog posts was seen to be an essential part of the process. When asked if they read the other blog posts, one volunteer commented:

“Yes. Because Dave will sometimes add in things. He sometimes adds funny comments under the pictures. And makes it fun. You know. A funny one about archaeologists in the seventies and their beards! It was really funny.” (Volunteer B, 2nd July 2015, pers comms.)

The additional insights offered by the CoA were clearly valued highly by the group:

“He [Curator of Archaeology] knows so much. He knows the real gem sites and where there’s so great stuff. It’s just easily coming.” (Volunteer B, 2nd July 2015, pers comms.)

The editorial process for the Wordpress blog means that the volunteers do not know when their content is going to be published, or exactly how it will look in its final form. This seemed to be a positive thing for most of the volunteers, as volunteer B commented:

“He [Curator of Archaeology] always – when he needs one written you know, we all get busy, and then you do something else for a while for a couple of weeks, because they’re done. They’re ready. He stores them up. You might have written them four weeks ago and then it will appear on Monday. So you’re wondering, will it be this Monday?” (Volunteer B, 2nd July 2015, pers comms.)

By maintaining control over the editorial process, the CoA has created anticipation around the blog, and this has improved the experience for the volunteers. This ‘buzz’ could be replicated for all social media use, and can be achieved by augmenting content with additional insights. This analysis indicates that the curator’s perspective has significant value and this could be acknowledged in social media use.

E.4.8 Audience development through sharing online

After explaining to the volunteers that sites such as Wikipedia could reuse the images if they were licensed differently when added to the Wordpress blog, one volunteer reacted:

“So they’d like the witches bottles ones [blog posts] then? I loved those! I didn’t know anything about it. Lovely introduction! Yes, and also to inspire other people to be interested in it. It’s all just sitting here. You know, just sitting here doing nothing. And if other people are inspired to think, oh wow!” (Volunteer B, 2nd July 2015, pers comms.)

E.4.9 Social experience

Two aspects of the volunteers’ experience with the Wordpress blog were notable. Firstly, the volunteers seemed to enjoy the social experience of preparing the article and discussing this

research with fellow volunteers, and this is in line with research into volunteer motivations (Edwards, 2005; Babbidge, 2009; Heywood, 2010; Deery, *et al.*, 2011; Bennett & Parameshwaran, 2013; Coleman & Nankervis, 2015):

“Yes. People talk about them. I like to see the pictures or something like that.” (Volunteer A, 2nd July 2015, *pers comms.*)

“I haven’t done one recently because I’ve been doing lots of other things. Yeah, quite a lot of the burial ones [were written by me]. And we were all doing different sites and the same time. And that’s great because then you talk about it together.” (Volunteer B, 2nd July 2015, *pers comms.*)

E.4.10 Personal connection

The second notable impact of taking part in the preparation process for the blog posts was the personal connection that the volunteers had with the collections. This was based on different types of connections, such as a location:

“It can be fascinating to see what comes out of a box. We talk about what we have discovered. The slides can be great fun. I recognise the locations sometimes. And, as you know, recently my own street featured in an aerial photograph from some work. That was great fun!” (Volunteer D, 18th June 2015, *pers comms.*)

Or an emotional connection:

“I want to be working with the objects themselves.” (Volunteer C, 18th June 2015, *pers comms.*)

Or be based on a memory of an activity:

“There’s several sites that are now stored here that I dug. And I was archiving the slides from a site for Dave, and I was archiving pictures of myself, from when I was twenty! Just! Ah! Really weird! I’m in the archive! It was a bit weird!” (Volunteer B, 2nd July 2015, *pers comms.*)

E.4.11 Realised the potential of the Web

Involvement in the blogging experience at HCT seemed to be positive for all of the volunteers. One volunteer reflected on the experience:

“I tell you what it has done. All this doing things on the Internet. I used to be a little bit bookish and a bit – ah – the Internet can’t replace books. But it’s actually aught me about disseminating knowledge via the Internet. That it’s such a great – provided it’s done well – it’s such a – it is brilliant for reaching people – a wider audience.” (Volunteer B, 2nd July 2015, pers comms.)

In saying this, the volunteer is indicating that the experience of volunteering is not only significant on an individual level, but that the personal contribution to community and societal level experiences of the collections is also an important factor. Future social media plans could consider this aspect of the motivations of volunteers.

Appendix F Museums Practice Article

Beale, N. (2013) Wikipedia for Regional Museums, *Museums Practice*, 17th June 2013. Available at: <http://www.museumsassociation.org/museum-practice/wikipedia/17062013-wikipedia-for-smaller-museums>

In the original article, the words that are underlined are URLs to online resources.

F.1 Wikipedia for Regional Museums

Nicole Beale

From its humble beginnings in 2001, Wikipedia has grown exponentially, and to date (May 2013) the multi-language website boasts over 4 million articles, with 19 million named user accounts. The site is one of the most visited on the Web, coming 6th in [Google's ranked list of most popular websites](#) (in 2011, Wikipedia achieved 410 million unique visitors), beaten only by Facebook, YouTube, Yahoo, Live, and MSN. The key to Wikipedia is that anyone can create and edit content, but all content must be evidenced with sources, modelled on the original format of the paper-based encyclopaedia form. Participation numbers are high; [currently](#) there are 300,000 active Wikipedia users who have edited more than 10 times, and nearly 130,000 users who have edited something on the site within the last month.

The large museums, libraries and archives are engaging with the Wikipedia community on a piecemeal basis; setting up projects at an organisation level to reap the benefits of this great resource. But how can smaller organisations engage with Wikipedia? The larger institutions have specialised IT teams and dedicated marketing departments. What if you are part of a small team of staff and volunteers?

There are plenty of examples of projects and events that can be adapted to suit regional, and specialist museum needs, and the needs of the communities that they serve. This article brings those examples together in one place and lists four things that you can do right now, and four things that you can plan for the future, to better use Wikipedia to support the work that you do.

F.2 Four things you can do right now

F.2.1 Task 1. Become a Wikipedia Editor

Wikipedia's greatest challenge is motivating readers of content to become editors of content. The site has a huge readership, but the percentage of users who are actively contributing to the site is very low. The sustainability of Wikipedia relies on contributions from people like us, who can improve and augment content, creating links and references to the objects, buildings, events and archives that we hold.

Wikipedia may have lots of information in it, but it has always been conceived of as a place that people pass through. It is a conduit, through which a user gets to further information and knowledge. Wikipedia cannot hold all of the knowledge in the world, but it could link to some of that knowledge. There is information that can never be in Wikipedia, but that is within our museums' collections, or our archives, or our libraries' shelves, and this is where you come in.

The biggest contribution that any one person can make to Wikipedia is to sign up for a user account and to edit an article. Wikimedia, the organisation behind Wikipedia, can provide training for members of your organisation to start to contribute to Wikipedia. The Wikimedia project to provide Wikipedians-in-Residence is the best place to begin to request training. These individuals are highly motivated, and skilled users and advocates of Wikipedia. Generally based in large galleries, museums, libraries and archives, they can be contacted through the [Wikipedian in Residence](#) website. I can't recommend this option enough. I recently organised a visit to our [university department](#) by [Andrew Gray](#), then British Library Wikipedian in Residence, along with representatives of the Southampton Wikipedia community. The [workshop](#) that they ran was inspiring, as well as being practically useful.

F.2.2 Task 2. Use Wikipedia referencing structure

Wikipedia has a strict rule, all articles must be validated. This means that any content on Wikipedia must have recognised references to evidence the veracity of claims being made. These references can take many forms, and present a great opportunity for regional museums. To find out what kind of an influence Wikipedia has in your museum's area of expertise, use this online tool to visualise page visit figures for Wikipedia articles: <http://stats.grok.se/> Not only is this a great indicator of people's browsing habits in your area of interest, giving you hints as to which

articles to add useful references to, but this can also be used as a way to bring traffic to your own online resources.

Take for example a museum based in Southampton, Hampshire. When we use the stats tool to search for articles about two similar heritage buildings in the city, we find that the article "[Medieval Merchant's House](#)" was viewed 4 times more often than a page about "[Southampton Tudor House and Garden](#)". The lesser viewed page has less information on it than the Medieval Merchant's House. The lack of information means that there is a lack of links out to other websites. Using this information, staff from the Southampton museum could perhaps contribute to improving the Tudor House page by providing more information about the history of the house, creating references to relevant Historic Environment Records, or related Tudor objects in the county's online collections database. These references are links, and will help people to find this Wikipedia page, or to find the linked websites through this Wikipedia article.

F.2.3 Task 3. Engage with your local Wikipedia community

Chances are that in your area there is a group of Wikipedia editors (Wikipedians) who meet regularly. Most cities and larger towns have Wikipedia chapters meeting and deciding on locally-focused drives for editing. These groups generally welcome support from other organisations. Check the [UK Wikimedia chapter website](#) to find out whether there is a group meeting near to you.

You could offer to host a Wikipedia meet-up at your museum, or run a Wikipedia event. One of the most popular forms of Wikipedia events is an editathon. An intensive editing session where a group meets and focusing on a topic for improvement in Wikipedia and together adds and edits content. In May 2013, the University of Oxford, Bodleian Libraries ran an editathon for Wikipedia pages relating to [Queen Victoria's Journals](#). The [day-long event](#) incorporated an exhibition visit, with a talk and an editing session; Introducing participants to the Queen Victoria Journals online resource. Check out the [Wikipedia Loves Libraries](#) pages for more information on how to get involved in editathons.

Other types of events that you could support through your museum include competitions that result in improving records. [Wiki Loves Monuments](#), was awarded the Guinness World Record of the world's largest photographic competition, with entrants from all over the world taking part in international and national awards, but there is currently no UK based branch of the competition. Now that's an opportunity!

F.2.4 Task 4. Get to know GLAMWIKI

The [GLAMWIKI](#) project aims to create relationships between Wikimedia and galleries, libraries, archives and museums. The group runs events, including an [annual conference](#), and is a great support network, as well as source of inspiration for project ideas.

F.3 Four things you can do in the future

F.3.1 Task 1. Enable Wikipedia to use your museum website

If you work on your own museum website, and you have a collections database that is accessed online, you might want to consider adding to any objects the option to copy [Wikipedia Citation Code](#). This is a short snippet of Wikipedia styled code that allows anyone writing a Wikipedia article to easily reference a particular piece of online content. The [Powerhouse Museum](#) is a great example of this. Read Seb Chan's excellent [blog post](#) on how it works.

F.3.2 Task 2. Engage with Wikipedia in your own museum

Increasingly, museums are using Wikipedia inside their buildings. Ways to do this include using Wikipedia articles to supplement labelling for exhibitions. Tablets displaying related Wikipedia content can be set up next to display cases. Or locations of Wikipedia articles in the form of URLs can be displayed allowing visitors to use their own mobile devices to scan quick links. [QR tags](#), as used by Derby Museum and Art Gallery, are a quick way to do this, although they are not the most attractive option!

F.3.3 Task 3. Link with Wikipedia outside of your museum

The hugely successful [MonmouthpediA project](#) embarked on a large scale attempt to improve content relating to Monmouth on Wikipedia, and involved the use of signage throughout the town that linked to particular articles using QR tags. Since the project started, over 550 articles have been created, and there are over 1000 QR tags up within Monmouth. You could try this approach on a smaller scale, providing heritage buildings of interest with QR tagged signage.

F.3.4 Task 4. Host a Wikipedian at your museum

The [Wikipedian in Residence](#) programme is ongoing. You could consider having a Wikipedian work with your museum for a few weeks to encourage Wikipedia use and improve coverage of particular topics of interest.

F.4 Finally...

Despite their global successes, the Wikimedia team is friendly and responsive to individual contact. There is often Wikimedia funding to set up projects, so if you have an idea, contact them.

Appendix G Day of Archaeology blog posts

In the following series of blog posts, all of the photographs were taken by the author of this thesis.

G.1 Where art meets archaeology: finding artefacts for an art exhibition of excavations at Calleva Atrebatum

July 24, 2015

Hampshire Cultural Trust Museum Archaeology, Romano-British, Excavation, Roman, Finds, Curation, Day of Archaeology 2015, Archives museum, Roman, Iron Age, Finds, Artefacts, University of Southampton, Hampshire, Archive, Silchester, hampshire-cultural-trust, tiles, pot, samian

Today I'm working at Hampshire Cultural Trust with Dave Allen. I'm lucky because my visit times with the regular weekly volunteer day at the Archaeology Stores, managed by the Curator of Archaeology, David Allen.

To find out more about the work of David and the team, visit their excellent blog, which has a new post every Monday.

Hampshire Archaeology blog: <https://hampshirearchaeology.wordpress.com/>

Nicole Beale

Sarah is a volunteer at Hampshire Cultural Trust and has been working with Lesley (who is not in today so we couldn't get a snap of her!) to prepare a display on some of the material from 1970s and 1980s excavations at *Calleva Atrebatum* (Silchester).



Sarah – A Trust volunteer

The pieces will be on display at the Willis Museum in Basingstoke, another Trust managed museum, from the 15th to the 29th August and will accompany a special exhibition '*Silchester: Life on the Dig*' which is made up of works by Silchester's Artist in Residence for 2014, Jenny Halstead. The exhibition will be on display in numerous other locations in the south, but the Silchester objects that Sarah has been selecting will be exclusive to the Willis Museum.

Sarah and Lesley need to choose a representative sample of objects, but also to identify objects that are appropriate for display, because they have an interesting feature, are not too fragile, and in the case of some of the tiny coins, large enough to see!

They picked out a selection of coins, there is also a glass bead that will be included in the display.



Coins! Lots of coins!



I don't know what I love more, the coins, or the envelopes that the coins are stored in

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Lovely coins



The glass bead

Sarah is holding a whetstone that is a fragment of sandstone, originally used as a roof tile, and then reused as a whetstone to sharpen chisels.



Sarah is holding the whetstone



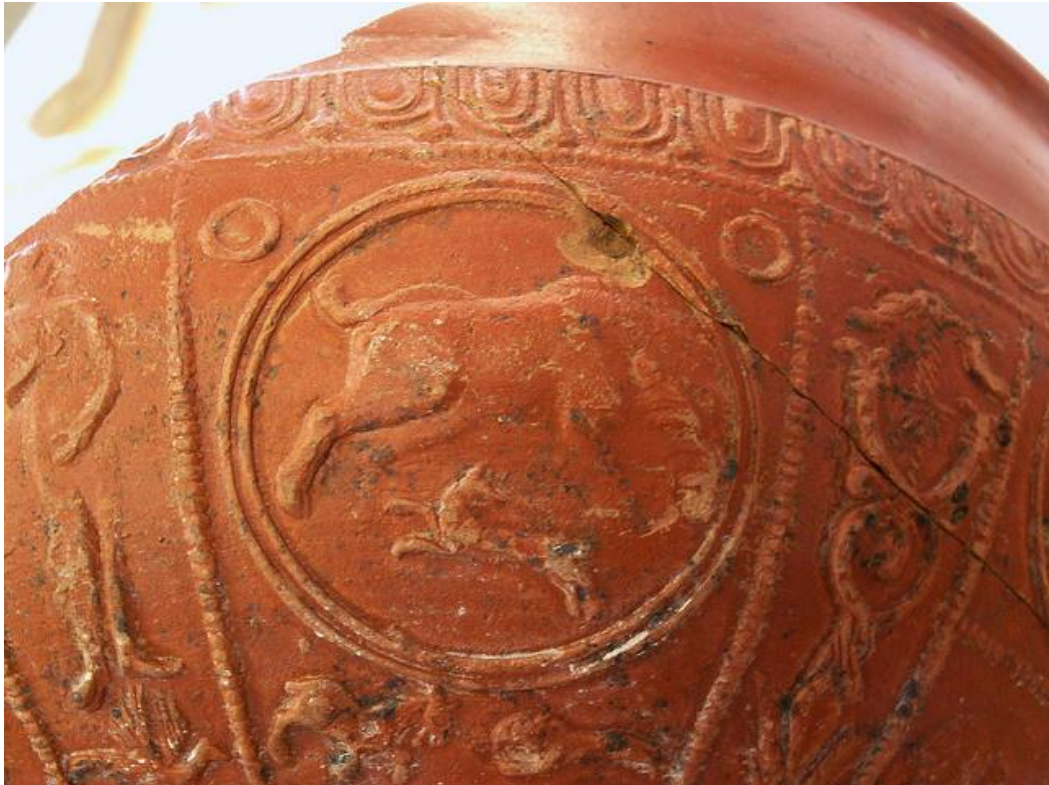
The whetstone

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The Samian bowl is very attractive and caught the eye of both of them when they were selecting items. It has all sorts of animals, including a deer, a goat, a hare, a boar, a bird, a dolphin, around the outside of it, and Sarah and Lesley thought that it would be fun to find out a bit more about the decoration. The bowl was made in Lezoux in the 2nd century AD.



The Samian bowl



A boar and a hunting dog?



A hare

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The pair also found some nice details on some of the tiles in the stores, including one that has a clear dog print on it.



Some of the tiles and brickwork from Silchester



Naughty dog

Finally, just before re-packaging the items to be sent over to the Willis Museum, Sarah needs to type and print labels that will go on display alongside the objects. This task can be quite time consuming as it is nice to be able to provide a little contextual information for each object, and so some research must be done for some of the less common artefacts.

The objects will be on display at the Willis Museum in Basingstoke: <http://hampshireculturaltrust.org.uk/willis-museum>

—

Nicole Beale

Where art meets archaeology: Finding artefacts for an art exhibition of excavations at Calleva Atrebatum by Hampshire Cultural Trust is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

G.2 Taking the iron age to the romans: researching iron age finds for an open day at Rockbourne Roman Villa

July 24, 2015

Hampshire Cultural Trust Museum Archaeology, Education, Romano-British, Iron Age, Excavation, Roman, Finds, Day of Archaeology 2015, Archives museum, Roman, Iron Age, workshop, Excavation, Hampshire, Archive, Open Day, Rockbourne Roman Villa, hampshire-cultural-trust, rockbourne, villa, stores, family, sorting, lyndhurst

Today I'm working at Hampshire Cultural Trust with Dave Allen. I'm lucky because my visit times with the regular weekly volunteer day at the Archaeology Stores, managed by the Curator of Archaeology, David Allen.

To find out more about the work of David and the team, visit their excellent blog, which has a new post every Monday.

Hampshire Archaeology blog: <https://hampshirearchaeology.wordpress.com/>

Nicole Beale

Two of the Trust's volunteers, Peter and Jane, have spent the morning working through a collection of artefacts from a late Iron Age site near to Rockbourne.



Peter and Jane checking objects against the archive inventory

The site was excavated in the mid-1970s as part of a British Gas pipeline being installed, and our intrepid volunteers have been doing some detective work to try to make connections between the objects from the stores here at Chilcomb and the paper archive which was published some time ago.



Objects need to be located and then checked. This is also a great opportunity to re-pack some of the more fragile objects.

Rockbourne Roman Villa is run by the Trust and this weekend will be hosting a family fun day. The event organisers want to celebrate the area's Iron Age connections, and so the team at Chilcomb have been set to task to find objects to showcase on the day.

In the first few boxes, they had already found some great objects to be taken up to Rockbourne for visitors to see.



Lots to work through!

In one of the boxes, Jane unpacks a huge tankard. It's much larger than we had all expected and lots of jokes about the serious business of beer-drinking in the Iron Age ensue.



Jane finds an Iron Age tankard



The huge tankard



Unpacking the tankard

Next, they unpack fragments of a kiln lip. On the underside there are clear finger-marks, left from where the clay had been quickly shaped.



The kiln rim

The pair spend some time focusing on the profile of a Late Iron Age large pot that is in several parts, and manage to piece it back together. It will provide a great prop for showing younger visitors how archaeologists can infer pot shapes from diagnostic sherds.



Hang on a minute, I think there's a good profile here...



Does this go here?



Now we've got it!

Tucked into one of the boxes is a nice example of a spindle whorl and also a small box which contains a bronze pin, probably from a brooch.



The brooch pin (you can just see the spindle whorl under Jane's right hand)



A big pot!



Still plenty left to unpack and check



Peter and Jane

We'll create labels for all of these objects and then transport them up to Rockbourne in time for the event on Sunday. Do come along if you're in the area.

More about the event: <http://hampshireculturaltrust.org.uk/event/festival-british-archaeology-experience-iron-age>

—

Nicole Beale

Taking the Iron Age to the Romans: Researching Iron Age finds for an open day at Rockbourne

Roman Villa by Hampshire Cultural Trust is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

G.3 Researching the human remains at Hampshire Cultural Trust

July 24, 2015

Hampshire Cultural Trust Museum Archaeology, Romano-British, Iron Age, Post Medieval, Medieval, Early Medieval, Anglo-Saxon, Prehistory, Excavation, Science, Roman, Finds, Osteology, Bronze Age, Curation, Neolithic Archaeology, Human Remains, Science, osteology, Hampshire, Skeleton, Danebury, Bones, hampshire-cultural-trust, weyhill farm

Today I'm working at Hampshire Cultural Trust with Dave Allen. I'm lucky because my visit times with the regular weekly volunteer day at the Archaeology Stores, managed by the Curator of Archaeology, David Allen.

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Hampshire Archaeology blog: <https://hampshirearchaeology.wordpress.com/>

Nicole Beale

Cynthia is working with Garrard to select samples for dating, to find out more about the human remains from the Danebury environs. Today they are working on the bones from an Iron Age cemetery, Suddern Farm. The work is part of a project with Oxford University, University of Glasgow and University of Leicester, and is ongoing.



Garrard and Cynthia look at the remains from the Danebury environs

Garrard points out that there is a visible healed fracture on the radius of the left wrist of the individual that they are looking at.



Garrard points out the healed fracture

Garrard is working on an individual from Weyhill Fair that was found under the foundations of a building. There had been very little information about the individual because the remains were under a floor and did not have any other means of dating associated with them.



The work area at Chilcomb HQ

Hampshire Field Club funded the radio-carbon dating and Garrard is assessing the materials which will make up part of the report covering this research.



Garrard



Cynthia

—

Nicole Beale

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G.4 Stories from bones: 3d printing bones for public engagement and making educational resources

July 24, 2015

Hampshire Cultural Trust Museum Archaeology, Community Archaeology, Education, Iron Age, Medieval, Anglo-Saxon, Digital Archaeology, Science, Finds, Osteology, Day of Archaeology 2015, Grants and Funding, Archives, Photography museum, Skeletons, digital archaeology, Human Remains, Photography, ARK, University of Southampton, osteology, Bones, public engagement, Basing House, 3D modelling, 3D printing, hampshire-cultural-trust, Stories-from-Bones, LP-Archaeology, paperwork, 3-d modelling

Today I'm working at Hampshire Cultural Trust with Dave Allen. I'm lucky because my visit times with the regular weekly volunteer day at the Archaeology Stores, managed by the Curator of Archaeology, David Allen.

To find out more about the work of David and the team, visit their excellent blog, which has a new post every Monday.

Hampshire Archaeology blog: <https://hampshirearchaeology.wordpress.com/>

Nicole Beale

Final post of the day! Goodness me its been a packed one!

I left the Archaeology Stores of Hampshire Cultural Trust near Winchester and am now down at the University of Southampton delivering some human remains from the site of Basing House near Old Basing in Hampshire to the osteo-archaeology lab. We dig at Basing House every year, but we also do lots of exciting research over the winter and autumn months.

This afternoon, Ellie Williams has been working with me to design an education session that will be used by the learning team at Hampshire Cultural Trust. The work is part of a larger project called Stories from Bones that is supported by the Public Engagement Network at the University of Southampton.

The project which has been organised by Nicole Beale, Sonia Zakrzewski, Martin Browne, and Dave Allen, is an interdisciplinary collaboration between the Bioengineering Research Group, the Department of Archaeology, and Hampshire Cultural Trust.

Stories from Bones has resulted in some exciting findings about the human remains from Basing House and the environs. The team have worked with students in the two departments with mu-vis, a centre for computed tomography, to CT scan and then 3D print a misaligned femur as part

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of an effort to work with the Trust to develop interpretation panels and educational materials for public engagement.

We've been doing lots of neat stuff as part of this project, including printing bones in lots of different sizes to test using them for different kinds of educational purposes. Yvonne Zanker, an undergraduate student who worked on the CT scan data with us took this snap of one of our smaller 3D prints.



Stories from Bones – tiny print

The eagle-eyed of you will notice in the image below that the 3D print is slightly smaller than the original. 5% smaller in fact. This is because the print is the maximum length that the printer could cope with!



Stories from Bones 3D print and original femur

We're working closely with Hampshire Cultural Trust on some interpretation panels that will go on display in Hampshire museums, alongside the app, 3D prints and the original artefact.



Stories from Bones app

We've also been taking Stories from Bones on tour. Here's an image of the set-up at Winchester Science Festival. It was great to get people's responses to the prints.



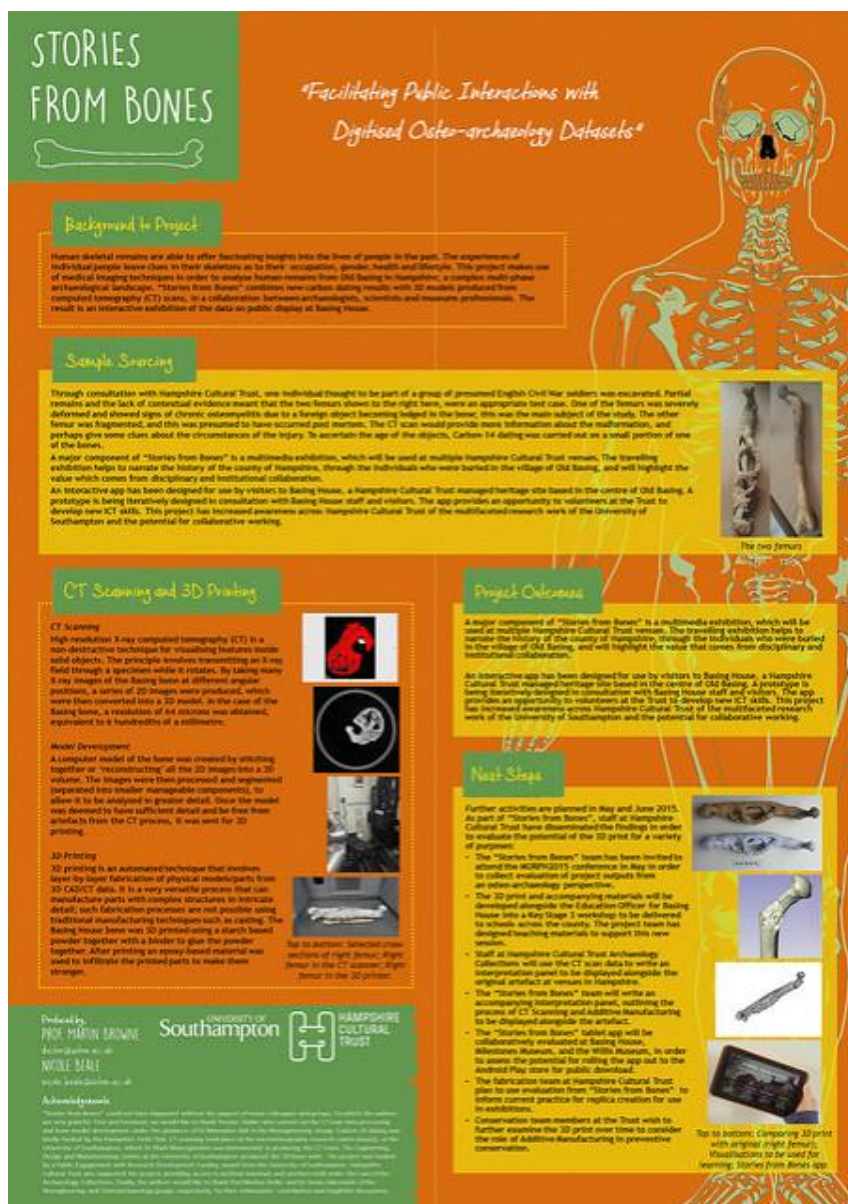
Stories from Bones on tour

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Yvonne and the 3D print

There is a poster about Stories from Bones available to download [here](#).



Stories from Bones poster

Ellie has been recording the bones from Basing House, measuring them and taking some high-resolution images so that we can make some learning resources. There is a partial juvenile cranium from Basing House that we are going to use.

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Ellie checking the educational materials we're putting together

We have also selected two adult male crania from Anglo-Saxon Great Chesterford, which are part of the teaching collection here at Southampton. We'll be using these as part of the education session as well because they are excellently preserved and will provide good examples.



Ellie photographing one of the skulls

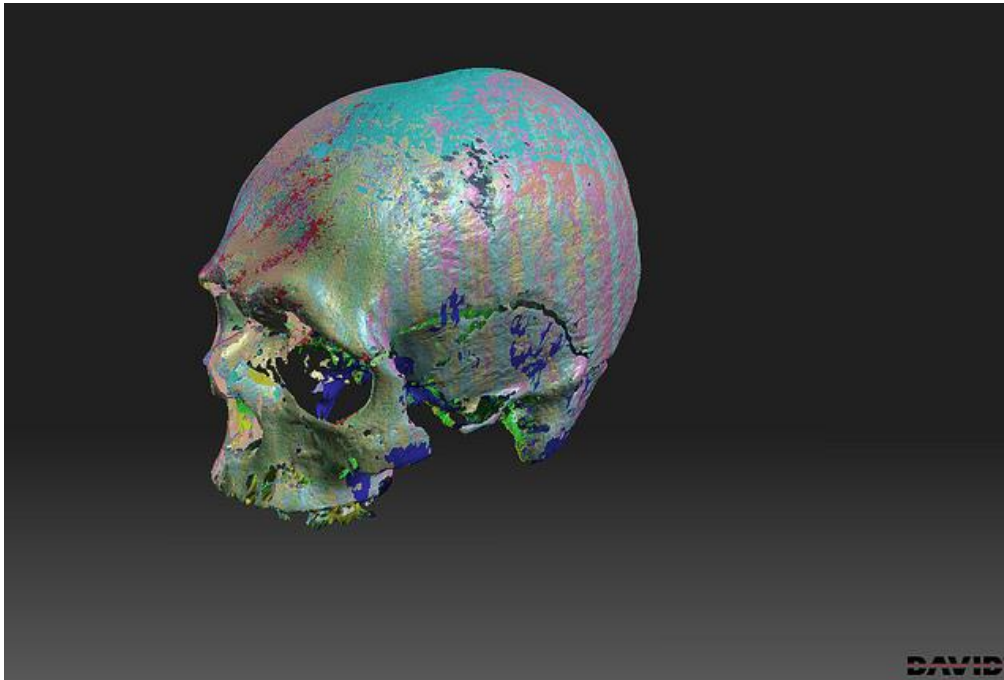
The digitisation work today is a nice follow-on from the work that Ellie and colleagues have been doing in the past few weeks.

Over three weeks, Ellie, Sarah Stark, Thomas Dhoop, and a team of interns, worked day and night to reorganise and digitise Southampton's important Great Chesterford collection. As part of this, key skeletal examples were chosen for structured light scanning and 3D printing.

This will form an important part of a teaching and outreach collection. And has already helped in the development of the Stories from Bones education materials.

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Here are some screenshots of the data:



Screenshot of the partial scan data – Image by Thomas Dhoop and Sarah Stark



The finished dataset, ready for 3D printing – Image by Thomas Dhoop and Sarah Stark



Notice anything interesting with this example's teeth? – Image by Thomas Dhoop and Sarah Stark

Sonia blogged about the intern

programme here: <https://generic.wordpress.soton.ac.uk/archaeology/2015/07/01/bioarchaeology-osteology-southampton-interns-bosi/>

I'm going to sign off now as the rest of the afternoon is dedicated to final checks of equipment and paperwork before the Basing House dig begins on Monday.

We're very excited to be using the excellent ARK this year and so I want to play around with making a sub-module so that we can link images, RTIs, and 3D photogrammetric models of our special finds to the rest of the records. We'd like also to share the results of the 2014 and 2015 field seasons online using ARK, so I'm going to be working with Gareth Beale who is based at the Centre for Digital Heritage, University of York, to make that happen this autumn. If any of the lovely LP-Archaeology gang read this, input is always gratefully received!

—

Nicole Beale

Stories from Bones: 3D Printing bones for Public Engagement and Making Educational Resources by Hampshire Cultural Trust is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Appendix H Research protocol

The documents included in this research protocol are listed below in table 18.

Document	Notes
Research Protocol	-
Consent Form	-
Ethics Screening Checklist	-
Interview Schedule (Non-institutional)	As some of the research was conducted outside of the UK, separate interview schedules were prepared for institutions in the USA and Canada. These were identical to the interview schedule included here, apart from the name of the institution being included in the document.
Participant Information Sheet (Non-institutional)	As some of the research was conducted outside of the UK, separate participant information sheets were prepared for institutions in the USA and Canada. These were identical to the participant information sheet included here, apart from the name of the institution being included in the document.
Risk Assessment Form	-

Table 18 - Research Protocol documentation

Student Research Project Ethics Checklist Nov 2011

This checklist should be completed by the student (with the advice of their thesis/ dissertation supervisor) for all research projects.

Student name: Nicole Beale

Student ID: 20748795

Supervisor name: Yvonne Marshall

Discipline: Archaeology

Programme of study: PhD

Project title: Understanding the impact of the Web on collection management in museums.

ERGO Number: ERGO2143

		YES	NO
1	Will your study involve human participants?	X	
2	Does the study involve children under 16?		X
3	Does the study involve adults who are specially vulnerable and/or unable to give informed consent?(e.g. people with learning difficulties, adults with dementia)		X
4	Will the study require the cooperation of a third party/ an advocate for access to possible participants? (e.g. students at school, residents of nursing home)		X
5	Does your research require collection and/ or storage of sensitive and/or personal data on any individual? (e.g. date of birth, criminal offences)		X
6	Could your research induce psychological stress or anxiety, or have negative consequences for participants, beyond the risks of everyday life?		X

7	Will it be necessary for participants to take part in the study without their knowledge and consent at the time? (e.g. covert observation of people)		X
8	Will the study involve discussion of sensitive topics? (e.g. sexual activity, drug use)		X
9	Will financial inducements (other than reasonable expenses or compensation of time) be offered to participants?		X
10	Are there any problems with participants' rights to remain anonymous, and/or ensuring that the information they provide is non-identifiable?		X
11	Will you have any difficulty communicating and assuring the right of participants to freely withdraw from the project at any time?		X
12	If you are working in a cross cultural setting, will you need to gain additional knowledge about the setting to work effectively? (e.g. gender roles, language use)		X
13	Are there potential risks to your own health and safety in conducting the study? (e.g. lone interviewing in other than public spaces)		X
14	Will the study involve recruitment of patients or staff through the NHS?		X
15	Does the research project involve working with human tissue, organs, bones etc that are less than 100 years old?		X

Please refer to the Research Project Ethics Guidance Notes for help in completing this checklist.

If you have answered NO to all of the above questions, discussed the form with your supervisor and had it signed and dated by both parties (see over), you may proceed with your research. A copy of the Checklist should be included in your eventual report/ dissertation/ thesis.

If you have answered YES to any of the questions, i.e. if your research involves human participants in any way, you will need to provide further information for consideration by the Humanities Ethics Committee and/or the university Research Governance Office. This information needs to be provided via the Electronic Research Governance Online (ERGO) system, available at www.ergo.soton.ac.uk.

CHOOSE ONE STATEMENT:



I have completed the Ethics Checklist and confirm that my research does not involve human participants (nor human tissues etc).



I have completed the Ethics Checklist and confirm that my research will involve human participants. I understand that this research needs to be reported and approved through the ERGO system, before the research commences.

Signature of student:

Date:

...18/3/13.....

Signature of supervisor:

Date:

.....

FACULTY OF HUMANITIES

OUTLINE OF PROPOSED RESEARCH WITH HUMAN PARTICIPANTS, TO BE SUBMITTED via ERGO FOR

ETHICAL COMMITTEE APPROVAL

STUDENTS PLEASE NOTE: You will need to discuss this form with your Supervisor. In particular, you should ask him/her to advise you about all relevant ethical guidelines relating to your area of research, which you must read and understand.

ALL RESEARCHERS PLEASE NOTE: You must not begin your study until Faculty of Humanities ethical approval and Research Governance Office approval have been obtained through the ERGO system. Failure to comply with this policy could constitute a disciplinary breach.

1. **Name(s):** Nicole Beale
2. **Start date:** 30/03/2013 **End date:** 01/05/2013
3. **Supervisor (student research only):** Yvonne Marshall
4. **How may you be contacted (e-mail and/or phone number)?**

07956077995 nicole.beale@soton.ac.uk
5. **Into which category does your research fall? Delete or add as appropriate.**

Undergraduate/Masters/MPhil/PhD/IPhD/Staff Research

6	Title of project Understanding the impact of the Web on collection management in museums. ERGO number: ERGO2143
7	Briefly describe the rationale for carrying out this project, and the specific aims and research questions My aim is to put together a picture of how the New Media and Web Strategy implemented in 2009 by the Smithsonian Institution has been received within the organisation by staff of the Smithsonian. I am also interested in how this group responded to the process of designing and implementing the strategy. Colonial Williamsburg has a Web strategy that incorporates income generation. This strategy has also been recently implemented and the details of the response to this strategy by staff will also be useful to my research.
8	What is the overall design of the study? My PhD research focuses on how organisations charged with the care of collections can use the Web to create connections to safeguard objects and also improve access to those items. I am developing a methodology which will be trialled next year with a group of local authority museums and trusts in the South East of England. In order to support this process I am conducting a series of interviews with individuals from museums which have already implemented strategies for using the Web to support working with communities they serve. It is my hope that these interviews will inform and improve both the development of the methodology and the process of implementation.
9.	What research procedures will be used? One hour semi-structured interview with staff members of the Smithsonian Institution and the Colonial Williamsburg organisation to discuss the implementation of the strategy. The interviews will be recorded (audio only) and then transcripts made of the interviews. As soon as is possible recordings from the interview will be transcribed. Content analysis using an interpretive approach will be carried out on the data collected. NVivo software will be used

	for indexing of this data, with a view to identify patterns and to categorise major elements such as terms, themes, concepts and semantics.
10	Who are the participants? Staff at the Smithsonian Institution and at Colonial Williamsburg. Contacts at each organisation will identify interviewees and provide an interview timetable.
11	How will you obtain the consent of participants, and (if appropriate) that of their parents or guardians? N.A. All applicants are adults.
12	Is there any reason to believe participants may not be able to give full informed consent? If yes, what steps do you propose to take to safeguard their interests? N.A.
13	Detail any possible discomfort, inconvenience or other adverse effects the participants may experience arising from the study, and how this will be dealt with. None.
14	How will it be made clear to participants that they may withdraw consent to participate at any time without penalty? The information sheet for participants will state that they may withdraw consent at any point, and I will reiterate this verbally at the beginning of the interview.
15	How will information obtained from or about participants be protected? Audio and transcripts from the interviews will be stored on a password protected network drive on the University of Southampton network. Transcripts will be coded with signifiers rather than names of institutions or individuals.
16	If this research involves work with children, has a CRB check been carried out? N.A.

Participant Information Sheet (Face to Face)

Study Title: Understanding the impact of the Web on collection management in museums.

Researcher: Nicole Beale

Ethics number: ERGO2143

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

This research is part of an RCUK (Research Council UK) funded PhD being carried out by Nicole Beale at the University of Southampton, UK. My PhD research focuses on how organisations charged with the care of collections can use the Web to create connections to safeguard objects and also improve access to those items. I am developing a methodology which will be trialled next year with a group of local authority museums and trusts in the South East of England. In order to support this process I am conducting a series of interviews with individuals from museums which have already implemented strategies for using the Web to support working with communities they serve. It is my hope that these interviews will inform and improve both the development of the methodology and the process of implementation.

Why have I been chosen?

This study aims to put together a picture of how the use of technologies, such as social networking platforms and mobile devices using Web-based resources, have been received within your organisation. I am also interested in how this group responded to the process of designing and implementing the resources.

What will happen to me if I take part?

The interview will be semi-structured, which means that although I have some questions to ask in relation to the use of the Web by your organisation, these are flexible and we may incorporate other topics of interest into responses. The interview will last one hour, during which breaks are possible.

Are there any benefits in my taking part?

The results from the interview will inform the case study that I am writing which reviews the use of the Web by your organisation. This will add to your organisation's knowledge

of the use of the Web and will also inform the research that I am carrying out as part of the overall PhD.

Are there any risks involved?

There are no risks involved in this interview.

Will my participation be confidential?

Any data collected as part of this interview will be stored in compliance with the Data Protection Act. The interview data will be kept on a password-protected University of Southampton laptop and transcripts will be data coded, thereby storing user and organisation IDs rather than names of participants and institutions, in order to anonymise data used. This will be linked anonymity, which means that whilst clear steps are taken to meet the requirements set by the Data Protection Act, there is a very small risk of participant identification, for example from comparing final report content, even once the data is anonymised. All participant data will only be used on the University of Southampton's systems and raw data will not be distributed to third parties, but may be shared within the supervisory team for Nicole Beale; namely Dr. Yvonne Marshall, Dr. Silke Roth and Dr. Graeme Earl. Results, such as some summaries or statistics may be made publicly available.

What happens if I change my mind?

Clearly state the right to withdraw at any time without their legal rights (or routine care if a patient) being affected.

Participation in the interview is voluntary. You have the right to withdraw from the interview at any stage.

What happens if something goes wrong?

Access to your data is restricted to the researcher and her supervisory team and only possible via the researcher. Data for the study is held on a dedicated server, accessible through secure authentication only. Should you wish to view any data relating to you, it will be kept for the duration of the study only, you may ask for it at any time. To do so, contact the School Office (Faculty of Humanities, University of Southampton) quoting the Ethics Reference number found at the top of this information sheet. In the unlikely case of concern or complaint, you can contact the Chair of the University of Southampton, Faculty of Humanities Ethics Committee Prof Ros Mitchell (02380592231, rfm3@soton.ac.uk).

Where can I get more information?

Appendix H

Should you require any further information about this study, or have any questions following the interview, you can contact the researcher, Nicole Beale by email: nicole.beale@soton.ac.uk or telephone: 02380592000.

INTERVIEW SCHEDULE (*FACE TO FACE: 1*)

Study title: Understanding the impact of the Web on collection management in museums.

Researcher name: Nicole Beale

Staff/Student number: 20748795

ERGO reference number: ERGO2143

During the Interview

Duration

The interview should last for no more than one hour. Halfway through the interview, the Interviewer will ask the Interviewee whether they would like to have a comfort break.

Recording

The audio of the interview will be recorded by the interviewer. The recording will be set to run before the interview begins, and stopped after the interview ends. The recording equipment is a pen and so is discrete, and the interviewer will make minimal notes during the interview.

Introduction

The interviewer will wear a name badge during the interview and confirm the name and position of the interviewee at the beginning of the interview. The interviewer will introduce herself and talk through the information sheet with the interviewee, giving them time to understand the study and the planned interview.

Interview Questions

The wording of the following questions is flexible, but the major topics for discussion will be adhered to.

1. Perhaps you would like to tell me about your experience with your organisation's use of the Web.
2. Were you involved in the design of these Web resources?
3. Does your institution have a Web use strategy?
 - a. If so, were you involved in the implementation of the strategy?
 - b. What kind of an impact do you think that the strategy has had on the work that you do as part of your role here?
 - c. How do you think it might change were the process and then the strategy itself to be designed again?

4. What kind of an impact do you think that these Web resources have had on the work that you do at your organisation?
5. How do you think you might change the use of the Web at your organisation?

Procedure

The interviewer will be pro-active throughout the interview, to ensure that the participant has fair and equal opportunity to respond to questions. The interviewer should not dominate the discussion.

Finishing the interview

At the end of the interview, the interviewer will thank the interviewee, and confirm again that they understand what will now happen with their data, in relation to the Information Sheet that they were provided with at the beginning of the study and the Interviewees will also be reminded that the contact details for the researcher are available on the information sheet.

Post-Interview

All interviewees will be emailed within three days of the interview to thank them for their time and input. As soon as is possible recordings from the meeting should be transcribed by the researcher.

CONSENT FORM (*FACE TO FACE: 1*)

Study title: Understanding the impact of the Web on collection management in museums.

Researcher name: Nicole Beale

Staff/Student number: 20748795

ERGO reference number: ERGO2143

Please initial the box(es) if you agree with the statement(s):

I have read and understood the information sheet (insert date /version no. of participant information sheet) and have had the opportunity to ask questions about the study.

☐

I agree to take part in this research project and agree for my data to be used for the purpose of this study

☐

I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected

☐

Data Protection

I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study. All files containing any personal data will be made anonymous.

Name of participant (print name).....

Signature of participant.....

Date.....

RISK ASSESSMENT FORM

To be completed in accordance with the attached guidelines

Activity:

Interviewing staff at Colonial Williamsburg and Smithsonian Institution.

ERGO Number: ERGO2143

Locations:

Various museums and offices with staff from the Colonial Williamsburg and Smithsonian Institution in Washington DC and the surrounding area.

Potential risks:

Travel between museums and lone working.

Who might be exposed/affected?

The interviewer and the interviewees.

How will these risks be minimised?

My husband is a nominated contact during the interview period and will be in the same city. I will call him at the start and end of each interview so that he knows when I am arriving and leaving offices/museums. Interviews will only take place within locations identified as being associated with the organisations with whom the staff are employed and will take place during working hours. Public transportation will be used to travel to and from each location, and due care and attention will be paid during these trips. All interviewees have been introduced to the interviewer through a recognised staff member. Interviewees will not be required to leave their place of work.

Risk evaluation:

Low / Medium / High

Can the risk be further reduced? ~~Yes~~ / No

Further controls required:

Date by which further controls will be implemented:

Are the controls satisfactory: Yes / No

Date for reassessment:

Completed by:	Nicole Beale		18/3/13
	Name	signature	date
 Supervisor/manager:			
If applicable			
	Name	signature	date
 Reviewed by:			
	Name	signature	date

Appendix I Social media audit at HCT

The evaluation in this appendix is focused on the methodological approaches and objectives of social media campaigns and activities that have been used at Hampshire Cultural Trust (HCT) to achieve organisational aims. This research is informed by a nuanced understanding of the local museum in contemporary society as identified in Chapter 3 and 4 of the thesis.

This appendix provides the initial foundation of a framework within which social media activities could be developed. The evaluation of social media use by HCT reported in this appendix is informed also by approaches to evaluating the use of information technologies for engagement in public services and in the third sector (Whyte, 2008; Curtis, *et al.*, 2010; Luyet, *et al.*, 2012; Escobar, *et al.*, 2014; Lee & van Dolen, 2015; Zhang, *et al.*, 2015).

1.1 Moving to trust status – threats and opportunities

The move to trust by LAMAs is highly relevant to the research described in this thesis because it is an activity that has increased in the past few years as a response to uncertainty in the sector. In 2011, nearly half of local authority museums were considering a move to trust status (Newman & Tourle, 2011: 14). This shift in regulatory body is recommended within the sector as being an opportunity for organisational change with increased community involvement, staff empowerment and shift of focus from failing to succeed in addressing multiple local authority needs to succeeding in addressing more focused direct service user needs (Winckwood Sherwood, 2010: 19, 26, 30).

A study of a trust status group of locally focused museums with archaeological archives is still relevant to local authority managed museums however. This is because reductions in funding across local government services mean that LAMAs are not considering a move to trust will still experience significant transitions to working practice, through the necessity resulting from resource reduction and so organisational change more broadly is an important consideration for this thesis.

The Communities and Local Government Committee (CLGC) sees trust status as a way to encourage creative engagement (6th December 2012, Q 280), and provide solutions for citizen needs (6th December 2012, ev. 79, para 2.2). Trust status is being promoted as a solution for local authorities struggling with ever-reducing funds. This perceived freedom for creative responses to

organisational challenges (Goodman & Dingli, 2013: 11), and is also a key driver in the adoption of new technologies and innovation in technology use in the sector (Andriopoulos & Dawson, 2009: 29).

The archaeological archive at Chilcomb House continues to be cared for by the same employees, but there is an additional collection, previously Winchester City Council's (WCC) Museums Service, that is made up of materials from the city of Winchester and its environs. The Winchester collection is still housed in its original location, and staffed by the same team as pre-November 2014. There are plans to amalgamate the collections digitally, but these have yet to be realised. This is predominately because HCC and WCC have used different systems to organise their digital data. Today (July 2015), the HCC and WCC collections, and the buildings within which they are housed, are leased to HCT. This represents an opportunity to inform plans to combine collections.

HCT is a large organisation, and this means that it has the capacity for experimentation. It cares for several different types of sites and museums, and has centralised support departments. Because of this, the community museums have skills available to them that may not be present in a single local government museum. However, there are still very few people within the organisation who are able to support complex Web-based projects. In the past, the organisation has had access to the information technology team within HCC, and information and communication technology (ICT) systems, including the HCCAMS website were managed centrally through this department. Moving forwards, the Trust will have to commission resources such as websites as it will no longer be part of the HCC ICT procurement and support system. The examination in this appendix evaluates Web use to date. Due to the change to trust status in the organisation that occurred towards the end of this research, the conclusions will consider the possibilities for HCT as a trust, rather than as a local authority managed group of museums. As with most municipal museums, HCT manages the buildings that the museums are held within, and as with most local museums the majority of these buildings have not been built for purpose (Tuck & Mirmolavi, 2015: 15). This means that there are additional pressures relating to maintenance of collections (Tuck, *et al.*, 2015: 11). The collections under HCT's care are predominately derived from the county of Hampshire and a significant proportion of the collections are archaeology. These factors mean the HCT is representative of many of the problems experienced by local museums.

Despite the change from council to trust, HCT focuses on goals that are in line with government goals. HCT has three major aims for the arts and heritage of the county of Hampshire and the surrounding area of Solent. These aims can be summarised as (HCT, 2014a):

1. Inspire pride in heritage for local people and admiration of heritage for visitors to the area.
2. Create and support regeneration economically in the region and generate income.
3. Improve lives by assisting learning and achievement.

These aims are in line with nationally stated goals of ACE within the organisation's strategic framework for 2010-2020 which are that "*Excellence is thriving and celebrated in the arts, museums and libraries*" and that "*Everyone has the opportunity to experience and be inspired by the arts, museums and libraries*" (ACE, 2013: 39). These aims echo other local government museums' objectives (Beale, 2011). The aims also highlight the importance of extending the reach of museums to engage with the widest possible audience and also the need to develop innovative ways of deepening this engagement. HCT is stating an approach in their strategic goals that acknowledges the importance of sustainability and also flexibility, and these themes are ones that will be returned to throughout this thesis.

In recent years there has been an upward trend in confidence by museums staff in the sector generally (Newman & Tourle, 2011; Evans, G., 2012, 2013). Museums professionals increasingly believe that the quality of service offered by museums will improve (Evans, G., 2012: 18). However, this increase in confidence is tied into a shift in perceptions of local museums that must be organisations managed away from local government (*ibid.*: 19). This appendix examines whether this is the case at HCT.

The change in perceptions has resulted in many local authority museums moving from local government managed to trust managed (Steel, 2013). The move to trust frees museums from local government agendas, whilst still maintaining close ties with originating government councils (Babbidge, *et al.*, 2006: 4). In 1999, under the Best Value Regime local authorities were encouraged to review the potential of improving service provisions through considering different models of management (Winckworth Sherwood, 2010: 6). The preferred model was that of the non-profit distributing organisation (*ibid.*: 9). As a consequence of this, some local authorities saw charitable trust status as a way to improve community involvement and to increase the number of potential funding streams (Gray, 2010). The numbers of independent museums in the UK demonstrates the increasing popularity of this option. In 2006, there were only twenty-three museum trusts (Mason, 2006). Half of these had occurred between 1996 and 2006 (*op cit.*). By 2011, there were over 1,200 independent museums (DC Research, 2010: 28).

The relationship of local authority museums that become trusts with the rest of the UK heritage sector is worthy of study. This is because trusts that have some from local authority managed museums have changed from being a public service. The trend in trust seems to point to local museums being at the forefront of innovation in technology use, because they are not constrained by barriers experienced by other types of museums that are locally focused. This thesis examines why this is not the case.

The expectation is that a trust-run local museum would be freed from the relationship with local government aims to deliver public good in a more flexible manner. In addition to this, more direct management structure unconstrained by centralised mechanisms for procurement and implementation of technology could result in faster response time. This kind of change would represent a substantial shift away from the perceived barriers to local museums for delivering services to audiences that have a lasting impact. Local museums that have transitioned from local government to trust should have eliminated many of the factors that conventionally support excuses about failures to succeed in achieving major objectives.

However, trust-run museums that were previously local authority run previously are at higher risk of failure in many respects. This is because they will still have to rely predominately on local authority funding despite being independent from local government. Research that looks at the benefits and pitfalls for culture, library and leisure organisations transferring to trust, has found that trust managed organisations that were previously local government managed will experience difficulty in accessing skills needed for management as boards can only have a limited number of local authority representatives (Winckworth Sherwood, 2010: 19). This means that specialisms must be found from elsewhere. Smaller trust-run organisations could often find that there is an over reliance on small numbers of staff and volunteers and that administration may require a higher proportion of resources due to the de-centralisation of assets.

These vulnerabilities are exacerbating the failure within local museums to develop digital capacity. Most trusts include representatives from the local authority and maintain close links back to the local government in order to overcome these negative impacts. These board members and ties with the government provide valuable insight into the aims and objectives of local and national government agendas. Although trust status means that local museums are able to set their own strategic aims, these will be based on local government agendas. This is because core funding is often still gained through regional government budgets.

Local museums that have moved from local authority management to trust can make more of their unique position. They can react more fluidly to changes in local community needs as they are not restricted by centrally decided missions. But this must be facilitated by the development of resources that can support the embedding of new processes of technology use that are not technologically determined. This thesis makes a contribution to this resource.

As unique models for a local museum, independent trusts can tackle more provoking topics that are important to local communities through the use of heritage, despite local government agendas. It is for these reasons that the intended shift from local authority to HCT represents an exciting opportunity for this research.

1.2 A new agenda for HCT

There are 18,000 units of archaeology (some of which are made up of several component parts) in the HCC archaeology collections cared for by HCT. Of these, only 4% are on display in museums run by HCT. The remaining 96% is in storage at the facility managed by HCT in Winchester (HCT, 2015b: 24).

The new Collections Development Policy was agreed in July 2015 (HCT, 2015b). It puts forward an ambitious plan for the archaeology collections. As well as committing to reviewing the collections in order to reduce storage requirements, digital imaging and Internet access are stated to be key priorities (Tickle, 2015: 23, 2.1.8.). On the ground, this means that HCT will need to conceive a way to support the one archaeology curator to work through the units stored at Chilcomb in a way that maximises the digitisation of, and dissemination online, of those objects wherever appropriate. This PhD investigates how these activities can be embedded into the current daily practice of current staff, as there is no provision to buy-out staff time to enable this work. This will require that digitisation and online dissemination is incorporated into current work, such as exhibitions design, collections access activities, and collections care. This thesis is timely as it informs the planned change in practice.

Although practically there has not been much change to the way in which the archaeology collections originally under the care of HCC are housed and accessed to date, it is very likely that this will soon be reviewed as part of HCT's commitment to become financially independent from its supporting councils by 2025 (Owen, 2013a: 6). This will only be possible if there is a substantial change in the way that HCT spends money and the way in which financial support is gained. As part of this change, it is likely that expenditure on resources such as storage facilities for objects

will need to be justified against measurable gains to communities and individuals from those objects. There is an urgent need therefore for the archaeology collections under HCT's care to have a clear statement of purpose and to evidence impact in all areas of HCT's major aims.

Until July 2015, there was an online collections database of objects held at the county store. This collections database included a limited selection of objects from the archaeology collections. The objects that had been digitised had been added on a piecemeal basis, often tied into a particular project, or the research of a curator at the Museums Service. For instance, over 100 photographs of teapots held at the Alton Museum had been uploaded onto the database. The database received few visits, and was not linked from any other online instance of the archaeology collections. This database is currently unavailable, as HCT moves the online pages of the HCCAMS to a new style in keeping with HCT's branding, and it is unlikely that it will come back online in the same form. There is therefore an opportunity to revisit the way that HCT presents objects online.

There are a few other instances of HCT archaeological objects occurring on the Web, and a representative sample of these will be discussed throughout this appendix. The general approach however to online sharing of objects by HCT has been low-key, and carried out on a piecemeal basis. Uses of social networking platforms for instance have been implemented at an individual rather than institutional level.

For the archaeology collections cared for by HCT, there is a need to identify ways to streamline the work carried out by the team in order to ensure that staffing levels, greatly reduced in the past few years, can cope with increasing demands for return on investment. Research commissioned by the Hampshire-Solent Alliance in 2011-2012 to examine the ways in which stored collections were being managed in the county with a view to identifying key priorities, an impending crisis in storage space for archaeological archives at HCT (Shepard & Howell, 2012: 15, 29) in the next five years. There are also some additional large collections of artefacts stored at other sites, such as worked stone at Basing House, a museum and outdoor heritage site managed by HCT. These archives are in addition to the archaeological artefacts cared for by HCT that are not associated with archives. Such as stray finds handed in by metal detectorists and legacy object collections gifted to HCC. Digital archives are deposited according to Archaeology Data Service (ADS) standards, the national body that preserves digital archaeological data in the UK. Around 80% of the archives have been published and most of the records in the accessioning system used at HCT (MODES XML) have the publication references added to them. There are very few images in the MODES XML records. Online, very little of the body of archives is represented. There are a limited number of archives online searchable through the ADS website *ArchSearch* (2014), but

these have been submitted by commercial archaeology units, funded by organisations like English Heritage. HCT has not submitted any archives post-accession to the ADS. The archaeology collections of HCT are therefore disparately located physically, but also digitally disconnected.

On the Web more generally, there are very few instances of HCT archaeological artefacts or indeed archives. There is metadata about the archives online, accessible through the Archaeology and Historic Buildings Record (AHBR) (2014), which is the Historic Environment Record (HER) for HCC. Records within the online AHBR database are not easily findable without using the AHBR search interface, and there is no way to link to search results as the online search uses an Oracle database server (Wheatley & Gillings, 2002: 229) to recall records but these are displayed with neither static nor dynamic URLs and so conventional approaches to linking Web-based content are usable.

I.1 The Digital Collections Officer

The Digital Collections Officer (henceforth DCO) began her career at HCT as a Marketing Officer, brought in to support the development of a Big Theme in 2013. HCCAMS began to focus efforts on 'Big Theme' programmes with the launch of *Soldier's Journey*, which aimed to make the most of the 1914-1918 World War I (WWI) Centenary celebrations in 2014. The Big Theme programmes began with *Soldier's Journey* as a way to bring together cultural heritage organisations in the Hampshire and Solent area. This was part of the move towards becoming a Trust in 2014 and in addition to HCC, also involved WCC and Southampton City Council (SCC). The project partners have a pre-agreed programme of Big Themes (*DinoFest* in 2015, *Royal Blood* in 2016 and *Jane Austen* in 2017) that will use a similar approach to that established with the 1914-1918 theme. In many ways, the Big Theme has shaped the current role of the DCO.

I.1.1 Using Big Themes to drive collections exhibiting

The Big Theme for 2014, *Soldier's Journey*, included exhibitions, events and a digital online presence in the form of a website (Hampshire's Big Theme 1914, 2015). The website contains a collection of photographs, digitised by the DCO for *Soldier's Journey* and a timetable of events relating to the Big Theme. There is also a page entitled 'Contribute' that encourages users to contribute details of events relating to the WWI Centenary celebrations, or contact HCT via an email address with contributions to the research being carried out about the First World War in Hampshire. The DCO acted as the website administrator for the *Soldier's Journey* website. The objectives of the Big Theme shaped the digital content produced by the DCO. The Big Theme website is in fact a Wordpress blog, but it is structured in such a way that the major features of a

blog, such as posts appearing in chronological order, are underplayed. The content selected for the website by the DCO was chosen for its visual interest. 56 photographs were identified by the DCO and then digitised in order to include them on the website, they were not necessarily used because they represented a particular aspect of the Big Theme programme (such as tying into an exhibition at one of the Council's heritage venues). Each photograph is accompanied by a brief description, the accession number, a map of the location if possible to infer from the object record, and a Disqus (2014) comment box displaying any comments that have been made and inviting comments with the statement:

"Have a story about [record name], or simply want to tell us what you think?"

The DCO also organised the contribution of 33 featured articles (these are actually blog posts) that were contributed by numerous staff members across the partner organisations, and also wrote 10 blog posts that advertised exhibitions and events that were part of the Big Theme programme. This content points to the DCO's role in the Big Theme website focusing on the importance of highlighting real world events and on providing contextual information about artefacts and events relevant to the Big Theme through narratives. All of the featured articles are in the form of stories.

I.1.2 Social media is free

The current terms of grant for the HLF, an organisation which has funded a substantial portion of heritage projects in the UK since 1994, for all types of funding state that the digital outputs of a project must be "*usable*" (Heritage Lottery Fund, 2013a) and free of charge for non-commercial uses for at least five years from project completion. The terms of grant also state that digital outputs must be licensed for use by others under CC licence Attribution Non-commercial (CC BY-NC) (Heritage Lottery Fund, 2013a; 2013b; 2013c). This commitment to opening up content produced digitally illustrates the need for skills in the sector to design content that can fulfil these requirements. The HLF is an important funder for community focused heritage projects and is the organisation's approach to digital content is very relevant therefore to the local museum. The HLF recommends that organisations use social media as a way to provide online content without needing bespoke design of tools and platforms. The report highlights a number of possible tools, such as Facebook, Flickr and YouTube (imagemakers, 2011). This is a signifier of the approach to the Web sponsored by the organisation, namely that:

"A lot can be achieved with very little investment, especially if enthusiasm and specialist digital knowledge is available within an organisation and its volunteers." (ibid.: 7).

In this statement, the HLF is buying into the rhetoric of social media; that it is a low-cost solution which is successful with community buy-in. This is reflected in the DCO's approach to the use of Wordpress for the Big Theme website, and in current activities.

I.1.3 Skills gap

There is also recognition in this statement of the need for user input for the success of digital resources, and the need also for skills within the organisation. This is a key issue for the successful adoption of Web solutions for local museums. HCT has a dedicated DCO, but many local museums must rely on volunteered knowledge or support networks outside of the organisation. Digital media is believed to have potential to extend the reach of heritage projects funded by the HLF and to engage new audiences (Abramsky & Souter, 2013: 2). But HLF funding applicants express concerns about the increasing emphasis on digital resource creation, with exclusion due to lack of access to digital technologies, negative effects on the value of the heritage being digitised, and an inability to implement projects quickly enough to keep up with innovation in technologies (Opinion Leader, 2011: 90-91) being major barriers. These fears are played out in the activities of the DCO at HCT. The DCO is well aware of the need to communicate with audiences through social media, but states that there is a need to ensure that more staff use social media, commenting:

"I think that if you could get every single person in the organisation using it, so that, whatever – so that they got a better understanding of their audiences." (Ellis, L. 11th June 2015, pers comms.)

These challenges have resulted in concerns about the future of local authority museums (Kendall, 2013c). Outreach programmes are resource heavy, relying on staff to deliver services away from the museums, and in many instances particularly in the case of the diversification of space-use, museums are hiring specialist practitioners in to facilitate events. This is not sustainable long term. One of the problems with this is that the free national museums for the past fifteen years has led to organisations that are charging for entry to evidence a clear benefit to visitors in direct competition to a 'free at entry' option. If a museum must be paid for, it must offer an experience that compares to other paid for leisure and learning activities (Vicente, *et al.*, 2012: 663). The accepted model for requests for fees in the sector is to place an emphasis on the need to keep the museum open. Pleas for money are often accompanied by explanations of running costs. There is a public understanding that museums are non-profitmaking, but in mirroring models from profit-making organisations, confusion is inevitable. Services such as shops and cafes further exacerbate

this uncertainty of purpose and for local museums, this can manifest as a failure to meet expectations of visitors.

An example from research by the Social Care Institute for Excellence highlights the impact that lack of awareness of the affordances of social media can have on attempts to improve experience of sociality online (Aldridge, *et al.*, 2012: 21). Aldridge *et al.* describe an elderly woman who was supported by a care provider to use Facebook in an attempt to improve her digital participation (*ibid.*). The woman made 1,000 friend requests to users on Facebook that she did not know, but that the platform presented to her as potential friends. This action resulted in a warning from Facebook and in abuse from invitees who did not know her (*op cit.*). In this instance, the social platform was isolating the user by offering a potential form of sociality that she could not understand. This example indicates that social media cannot be understood away from the study of digital inclusion and access to technology.

In the heritage sector the use of social media has risen considerably in recent years (Clayton, *et al.*, 2014: 41). Yet, in cultural heritage and historic environment sector research IT and digital skills ranked third in the list of skills lacking in new entrants to the sector, after specialist skills and work skills (Trends Business Research, 2013a: 52). Despite the purported digital skills gap, social media uptake seems to be increasing. This is both exciting and worrying. The number of heritage organisations that can be communicated with online is increasing, but the lack of skills in the sector for the responsible and effective use of Web technologies is reported to be increasing. From this, we can assume that there either the social media use of independent heritage organisations such as local museums does not require digital skills, or that social media use is ineffective.

Commissioning is of increasing popularity this is because the level of specialism in local museums is greatly reduced due to reductions in staffing levels (Evans, G., 2012, 2013). It is also preferred due to pressure on local museums by governing bodies to deliver on objectives that are of increasing complexity (Tlili, *et al.*, 2007). These objectives often require several specialisms for delivery that are no longer available in-house (Fusion Research & Analytics, 2012: 6). This increased reliance on commissioning is evidenced by interviews carried out at HCT, discussed in Chapter 4, 5, 6 and 7 of the thesis and in Appendix I and Q. It can also be seen in analogous studies, such as Morse and Munro's recently published findings from interviewing paid staff at regional museums services about commissioning trends (2015).

I.1.4 Evidencing impact

At HCT, the DCO works to create digital content from the collections and to make that content available through the Web. The major concern for the DCO is the need to increase visitor numbers to exhibitions and venues run by HCT. This is compounded by the need to increase income to ensure the long-term survival of HCT. The issue of return on investment is therefore at the forefront of all digital activities for the DCO, and is evidenced in the following statement. On being asked whether there is a disparity between the way that museums currently cater for local audiences and the way that they serve tourists, the DCO responded:

“All museums are struggling, wherever you are, aren’t they? And so that whether that is improved by getting bums on seats, people through the door, to prove to councils that ‘keep the museum open’ if you’re free. Or to keep buying.” (Ellis, L. 11th June 2015, pers comms.)

There is a clear need for the DCO to be able to evidence impact, and this is borne out in the need to maintain and increase visitor numbers, as this is an easily quantifiable impact. There have in recent years, been several studies into the ways in which museums can quantify their impact on society without relying on visitor numbers as the major indicator (Tait, 2008), although most of the work along these lines relies on people attending events in the real world. Much work has been done on the impact of activities such as object handling on health and well-being (Ander, *et al.*, 2013a; Camic & Chatterjee, 2013) as these do not necessarily rely on physical visits to museums. However, there is a much smaller body of literature that advises on how to evidence the impact of non-analogue experiences with museums, such as haptic experiences with objects (Romanek & Lynch, 2008) and for online experiences with objects in collections (Baggett & Gibbs, 2014).

The UK Government sees local authorities as being integral to the delivery of cultural policy (Gray, 2004). Local museums are a key place for people to experience heritage, but the relationship between local government and local museums has meant that local museums have not been able to focus on providing a major contact zone for heritage for individual or community needs (Pollock, 2007). Research has evidenced that, in the past, the key reason that local authorities allocate funding to arts and culture has been local economic development (Mansfield, 2014: 10-11). This undersells the potential of local museums, conceptualising them merely as Naylor describes as: *“map or guidebook to the surrounding area”* (2002: 495, cited in Phillips, *et al.*, 2015: 10).

Professionals working in local museums acknowledge that there is a far broader range of impact for local museums than those recognised by local authorities. These include environment, economy, education, society and communities, and health and wellbeing (DC Research, 2014: 6-11). In focusing on these concerns, local museums would be providing a “*critical site of public debate*” (Pollock, 2007). This can only be achieved by refocusing on the communities within which they are based (Heumann Gurian, 2006:75). These communities may not be place-based, but instead may exist within a space defined by the needs of shifting communities that align themselves to the locality. For instance, there are many community-led groups within social networking platforms dedicated to histories of particular settlements. These groups will have members that live in the settlement, but there will be several other members outside of the settlement, who self-identify with that settlement for many different reasons, such as genealogical links or childhood memories associated with holidays (Paasi, 2002, 2013; Shields, 2006; Allen & Cochrane, 2007; Jessop, *et al.*, 2008; Agnew, 2013). In fact, in platforms such as Facebook, many groups acknowledge this variation in motivation for participation. Three active Facebook groups for one borough provide an example of the breadth of incentives: *Isle of portland past and present* (2014) focuses on people from the area and much effort is spent identifying forgotten individuals and lost buildings from digitised personal photographs, *Portland Windmills* focuses on the history and protection of two windmills under threat from quarrying (2014), and *You’re over 30 and from Weymouth when...* celebrates the town through contemporary photographs combined with childhood memories (2014). Engaging with the breadth of personal connections represented in these kinds of social media groups could enable local museums to fulfil a more expansive range of community-motivated aims than those that are currently recognised by the institutions that govern them. At HCT, the use of social media would need to evidence impact from the outset.

I.1.5 Barriers to connecting collections (leveraging existing digital assets)

One of the major problems for HCT is coping with the already existing websites and online resources that pre-date HCT. Despite being maintained, these are currently not considered as assets by HCT staff (Ellis, L. 27th June 2015, *pers. comms*). One such latent digital asset is the *Heritage100* website (2013a). The website came out of the Hampshire-Solent Museums Alliance, established in 2011 as a way to “*inter-connect*” (Owen, 2013b: 5) collections from several organisations (Hampshire County Council, Isle of Wight Council, Mary Rose Trust, National Motor Museum Trust Beaulieu, Portsmouth City Council, Southampton City Council and Winchester City Council) because of the need to rationalise storage of objects. The partnership resulted in a joint

collections centre initiative, the Engine Room Project, which is still in its planning phase, and which aims to bring together collections in order to:

“...make a myriad of connections and transform our ability to generate stories for customers to enjoy in the physical and digital environment” (Owen, 2013b: 5).

The timeliness of this thesis research is emphasised by the establishment of the Engine Room Project in 2011. As this thesis has evidenced, engaging with the social potential of the Web can support the aims of joining up narratives around the collections and this thesis will therefore contribute to the design phase of the Engine Room Project.

The most significant project carried out by the Alliance to date is *Heritage100*. This project also resulted in the most substantial online presence of HCT in addition to the Big Theme websites. The *Heritage100* website is still online although no longer maintained. The project ran from 2011 and aimed to bring together several regional and local museums within Hampshire and the Solent area in order to digitally collate objects from disparate collections into one location, the *Heritage100* website (2012a). *Heritage100* was funded by Renaissance in the Regions, and as a flagship project for the Alliance it provides a useful point of reference for approaches used by the Alliance to fulfil missions of the museums services they represent, in particular the need to ensure the longer-term sustainability of the services whilst supporting local regeneration (ACE, 2015a).

Heritage100 aimed to make connections between objects held in different locations, and during the period that it ran there was an effort to work with creative practitioners to develop collaboratively derived interpretations of objects as well as to collect reactions to the collections and to heritage of the region more generally. This work resulted in video content shared online via the *Heritage100* YouTube channel (2013b). Viewing numbers online of these videos is low; three years on most videos have less than 50 recorded views, although public showings of the videos at the time of the project are not included in the YouTube uploads. Viewing of historical video footage of towns and cities in the region added to the channel from the Wessex Film and Sound Archive at Hampshire Archives and Local Studies however were considerably higher, often reaching over 3,000 views, which seems to evidence that there is a high interest in original footage rather than creative interpretations of archival materials. However, this thesis focuses on the archaeology collections of HCT, and the nature of these collections is such that it is necessary in almost all instances to contextualise objects with further information in order to explain their relevance within a narrative. HCT must identify methods to increase interest in video content that is ‘new’ as opposed to ‘old’.

I.1.6 Embedding legacies from cultural commissioning

Southampton City Council's forward plan listed *Heritage100* as a resource that is significant as a part of the Service's offer to researchers and enthusiasts:

"With the availability of online databases 24/7 people can, from their own armchair, consult, comment on and contribute to our collections on line, for example within the Heritage 100 collaborative project." (Southampton City Council, 2013: Appendix B, B1.7)

However, contributions to the website were short-lived and did not extend beyond the life of the project. The *Heritage100* project had collaboration at the heart of real-world activities but these were not translated onto the online portion of the project. Roadshows were commissioned and held across the county in 2013 to encourage engagement with objects and collections. The cultural commissioning meant that events were characterised by intensive periods of activity. However, there is a disconnect between the improvised and quick-moving nature of the creative practitioners' work and the static stand-alone digital objects on the website. This is fairly representative of many smaller local museums' use of contracted practitioners and the Web. It is difficult to join up Web use with these intensive real-world events, especially when external parties are contracted to carry out the work. This approach of external commissioning is increasingly popular in local museums and so it is important to review the legacy of such activities online. For instance, comments collected by artist Dee HoneyBun as part of her work for the *Heritage100* project were not included on the *Heritage100* website, or on social media managed by the partner organisations. Some photographs are still available online, via the artist's portfolio website (HoneyBun, 2013), but the archive from the events has not been made available. Figure 40 overleaf illustrates some of the feedback that the initiative collected.

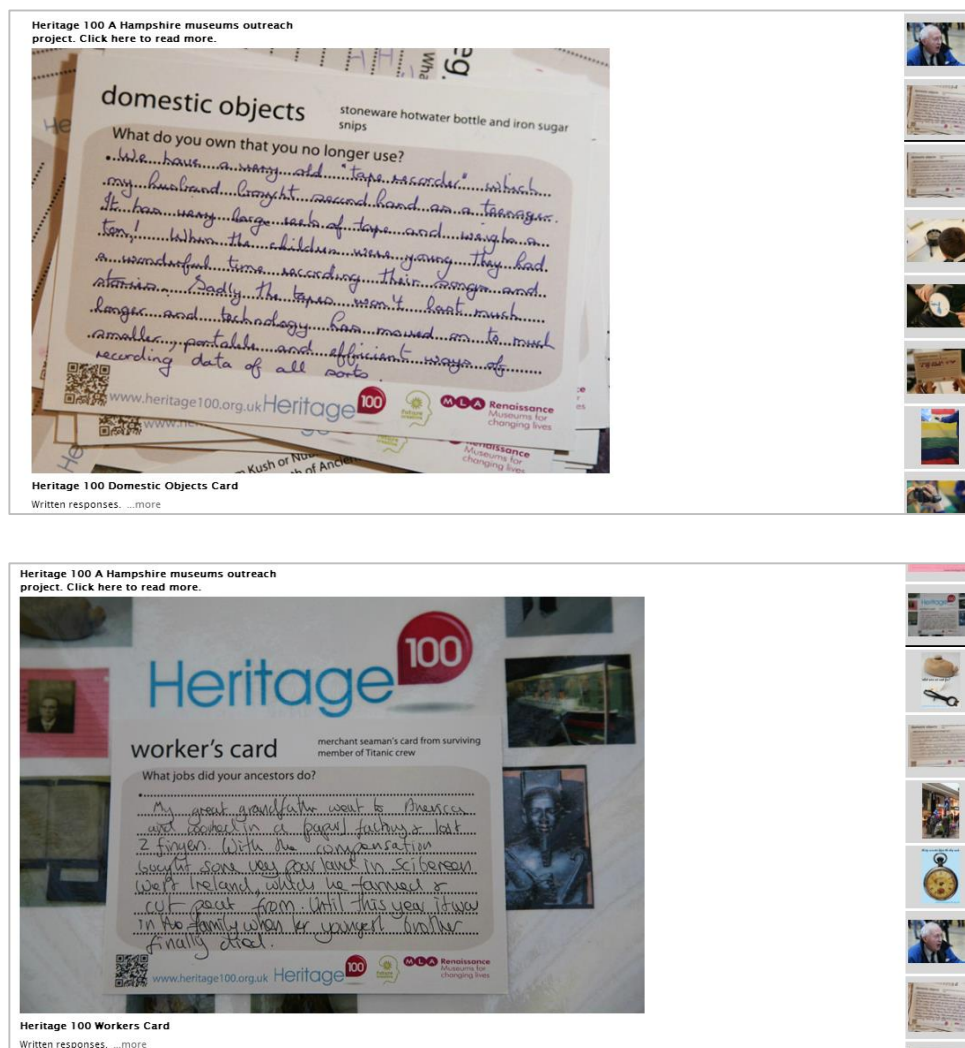


Figure 40 - Screenshots from Dee HoneyBun (2013).

For several of the Heritage100 roadshows, museum representatives facilitating events took photographs of participants and objects that they had brought to show and tell meetings. The *Heritage100* website embedded the Disqus (2014) comments plugin into each page. Disqus is a social networking platform for discussion forums allows for the embedding of comment feeds into posts on websites. The roadshows were intended to encourage collaboration, but the technical skills of staff and the structure of the website meant that digital content from these events was added to Disqus comments associated with news pages about the roadshows (*Heritage100*, 2012b), and was not connected to any other content in the website. This has prevented the discovery of this content by users of the website. The digital content could provide valuable feedback to the Alliance as it serves as an expression of personal notions of heritage by people living in Hampshire. Angela's comment below, submitted alongside two photographs of the object, serves as an example of the significance of this content:

“Angela with her original nintendo 'game and watch' ...This one and two others we bought in Singapore in 1980 for son and daughter. We bought them when we were on holiday there. It is the first Nintendo - it is called a 'game and watch'. The kids played them constantly. As we are a forces family, we are always on the move, travelling from continent to continent.” (Heritage100, 2012b)

I.2 Digitising Creates the Digital Offer

At HCT, very few staff members are involved in social media use and to date there has been little training to enable staff to use social media. The DCO recognises the contribution that social media can make as a barometer for audience attitudes (see Marwick & boyd, 2011 for a discussion of this) about an organisation, the use of Twitter for research into television audiences illustrates the significance of social media as a tool (Harrington, *et al.*, 2013). The DCO also wishes to use social media to facilitate a change in the way that HCT manages the collections in its care:

“You know, informing collecting, what we collect. You know, what it is that people think we should be valuing... It would be much better to collect the stuff that people think reflect their lives.” (Ellis, L. 11th June 2015, pers. comms)

In recognising that there is a potential for social media to contribute to understanding what people want from the collections themselves, the DCO is echoing work being carried out in the area of big data analysis, where social media content is being used to examine social patterns (Bruns & Stieglitz, 2013) or to predict reactions to events (Larsson & Hallvard, 2011; Lotan, *et al.*, 2011). However, HCT does not currently have the capacity to carry out any analysis on the contribution of social media to understanding the concerns of audiences beyond cursory study of Google Analytics (2013) and Sprout Social (2013) to see how content being shared is accessed. This is contributing to analysis of social media use, and is also impacting on programming future digital content for the social media accounts that HCT manages, but does not inform programming more generally.

In the past few years, local museums have developed new approaches to improving audience engagement and to increase reach and impact on the communities within which they are based. One of the biggest barriers to engagement is the distance of a local museum to its audiences. Locally based visitors are more likely to visit a local museum than people living further away (Boter, *et al.*, 2005; Brook, *et al.*, 2010). In response to this, education and outreach staff have increasingly travelled out of museums to visit schools (Morris Hargreaves McIntyre, 2008) as teachers are under increasing pressure to arrange ‘trips’ without leaving site (Evans, G., 2013).

Outreach to organisations such as homes for the elderly and hospitals has also increased (Rhoads, 2009; Ander, *et al.*, 2012; Ander, *et al.*, 2013b; Chatterjee & Noble, 2013; Vogelpoel, *et al.*, 2013;), and the sector has found new uses for objects held within collections. Programmes which focus on mental health and well-being evidence that the types of artefacts often found in local museums are more suited to activities such as reminiscence for dementia patients than those found in national museums (Ander, *et al.*, 2013a; Paddon, *et al.*, 2013). More generic objects are replaceable and are often part of local museums' collections in multiples which means that they can be handled more readily. All of these moves to improve the impact of the museums' collections on audiences has resulted in staff and objects from local museums are spending less time within the building of the museum.

A key concern for the DCO is the creation of online content that is visual, and this is obstructed by the lack of digital images of objects in the collections:

"Because we don't have a huge amount of high quality images. We've got a lot of stuff digitised. We've got photographs digitised, to high quality. But objects, we don't have a lot of good quality photography." (Ellis, L. 11th June 2015, *pers. comms*)

As a response to this, the DCO is embarking on a programme of photographing objects from the collections. Currently, the photography is tied closely into the Big Theme for 2015, which focuses on dinosaurs. As HCT does not have many dinosaur related objects in the collections, the DCO has been photographing collections from the Natural History collections. The collections are being photographed on a piecemeal basis and there is no attempt to photograph comprehensively. Images are being created by a contracted photographer, with the understanding that the digital files can be used but non-commercially.

The museums sector has long struggled to find its way through the complications of the impact on ownership of the digitisation of content (Baron, 1996; Sundt, 1999). The issues surrounding legacy licensing for digital content (Crews, 2012) are a major barrier to online sharing of content for museums. This is further compounded by the increasing use of user generated content by many museums (Weilenmann, *et al.*, 2013) for engaging with audiences through social media. This also the case at HCT, where images of archaeological artefacts have been taken by various different photographers as part of accessioned archives, but may not be available digitally in a format that can easily be shared online, or indeed have enough information associated with digital files to enable online sharing. Luckily, many of the images of artefacts that are held in the stores have been taken by staff in the archaeology collections team, predominately the CoA and the

conservators, and so these would be much easier to make available online under suitable licenses for sharing via social media.

I.3 The Marketing Officer

The Marketing Officer (henceforth MO) has been with HCT for one year. She joined HCT under a Graduate Internship Scheme and was employed on the work relating to the Big Theme for 2014, *Soldier's Journey*. The MO moved across permanently to the Marketing Team at the end of her internship and now works as part of a group of six people. The Marketing Team is made up of several specialisms, including social and digital media, and is model present in many larger regional museums/museum groups. Museum marketing publications have changed over time from being focused on educating visitors and the importance of visitor studies, to the diversification of sources of revenue and in gaining new audiences (Rentschler, 2011: 16), evolving from a period of professionalisation to a period of entrepreneurship (*op cit.*).

This issue of catering to the audiences that have easily found their way to the social media accounts of HCT is one that needs to be addressed. There is an assumption that the current audiences are the ones that must be catered for, rather than there being a need to extend the reach of the accounts beyond these audiences. The MO describes the way that the Marketing Team currently use social media, in the context of the most recent Big Theme, *DinoFest*, which uses dinosaurs to bring in younger audiences:

"Yeah, you kind of have to make the decision of who you're going to aim at, and who's going to come to it – what you main decision and kind of what your main aim is, with DinoFest, we knew we need to get people into venues, we knew we needed to be up on retail, we needed to be up on visitor figures, and we knew we needed to be up on basically making money, and so we looked at who are the people who are going to do that, and what's commercial, and it's going to be for families and so when we – we're going to have to target it to be that way." (Smith, L. 8th September 2015, *pers comms.*)

There is a clear concern at HCT that the incorporation of collections data will result in the intellectualisation of the social media experience. This fear of the need to 'dumb down' when engaging with audiences online has been manifest in the museums sector for some time (Bayne, *et al.*, 2009). As the MO describes the content that can be included on a Trust managed social media feed:

“...it can’t really be this heritage-y, um academic thing, you know we’re not going to get enough people, and we need to, it needs to appeal to the masses.” (Smith, L. 8th September 2015, pers comms.)

However, work by curators actively promoting the incorporation of online resources into object interpretation, proves that this does not necessarily need to be the case. For instance, Bremen puts forward that social tools online, such as Wikipedia (Bremen, 2011: 121), can in fact be successfully incorporated into exhibitions with little or no ‘dumbing down’. The lessons learned from this kind of approach can inform the design of content for the outreach activities of museums also, such as the Facebook page. The aims and strategies of the Marketing Team, played out in the team’s use of social media, is not aligned to other concerns for HCT, in relation to collections care and access to collections.

I.3.1 Multiple sites, multiple audiences

The MO sees the main HCT website as the key destination for all users:

“It’s in too many different places, and that’s the great thing about the online collections resource. On the Hampshire Cultural Trust website, is that you can go to one place, and in that one place you can go and find all the collection items that are online, that have been digitised. So it’s all in one place, rather than having to go to seven or eight different websites and then seven or eight different social media pages, rather than the overarching one. And then nineteen different venue pages. And you’re just like, Oh my goodness!” (Smith, L. 8th September 2015, pers comms.)

Maintaining control over content and over the feeds of the numerous social media accounts that exist for HCT is a key concern for the marketing team:

“But then there’s, so there’s this worry that if we all individuals have their tiny blogs here and there, then we’d have a lot of stuff. That’s what happened with the social media pages, where like Facebook pages were popping up everywhere, with like no guidance, and it became a bit unruly to control. And it became, yeah, it just becomes like a bit of a monster that couldn’t be sorted really.” (Smith, L. 8th September 2015, pers comms.)

Currently, the Facebook pages for Trust venues are not controlled by HCT, although the marketing team plans to audit existing accounts in order to better understand the situation. The *Hampshire Archaeology* Wordpress blog (2014) is considered by the MO to be a bit of an anomaly:

“Yeah, at the moment, that archaeology blog works really, really well because it’s the only one and it’s the one that kind of, it’s behind the scenes of um that niche, and stuff. But I don’t know how well it would work if we had a behind the scenes blog of every collection, kind of group. So if that had one for Natural Sciences, if they had one for Social History. So if they had one for every single one, I don’t know if it would become too much.” (Smith, L. 8th September 2015, pers comms.)

The marketing team are very supportive of the *Hampshire Archaeology* Wordpress blog, but are not keen to enable other curators to carry out the same activity:

“But if we have lots and lots of blogs, it then becomes so over saturated that there’s just, just too much going out, in too many different places.” (Smith, L. 8th September 2015, pers comms.)

Within the space of the local museum itself, there has been a noted diversification of use, with museums hosting events such as weddings and other celebrations and supporting group meetings for activities such as yoga and playgroup, although this has occurred less in museums in comparison to other arts and cultural institutions such as libraries and arts centres. In fact, local museums are better suited to this kind of diversification of use of space than other types of museums as they do not tend to care for objects with high monetary value. There are less often objects in local museums that are considered to be irreplaceable than there are in other types of museums. Whilst this does not detract from the value of objects held within local museum collections as vessels for heritage, it does mean that on a practical basis, areas within local museums can be made available more easily for less conventional activities that might put objects at higher risk, such as those that incorporate food and drink for example. But with the increasing pressure from local authorities for these museums to evidence impact, and the decrease in funds that are made available for this impact, these outreach programmes are not going to be enough to save the local museum from extinction.

I.3.2 Exhibition trends and exhibiting Hampshire collections online

At HCT, there is a clear attempt to replicate approaches adopted in national museums and this is impacting on audience expectations of the venues and staff at HCT. For HCT, exhibitions are the major way in which people access collections. A programme of temporary exhibitions that take place in multiple venues encourage visits to permanent exhibitions and inspire outreach sessions that take the collections to the audiences, predominately through school workshops and family friendly events.

In the 2012-15 plan for the museums service for HCC, the temporary exhibitions were described as being central to the Council's aim for Destination Hampshire (Hampshire County Council, 2012: 29), as a way to encourage visitors to the area and to encourage economic investment. HCCAMS had been designing travelling exhibitions which complement the trend to provide entertaining snippets of heritage for a few years, and has also hosted some 'blockbuster' exhibitions from national museums. These large, multi-institutional touring exhibitions make use of internationally popular themes to attract new audiences to organisations (Department for Culture, Communities and Rural Affairs, 2010: 3). To date, these exhibitions have had little technological component to them. A few interactives have been developed to support displays, and some images and text was prepared and shared via popular social media platforms, Facebook and Twitter. But no substantial digital content was offered online.

In 2010 there was a key-change moment for museums exhibitions in the UK. The significance of this change has yet to be recognised. The British Museum worked in partnership with the BBC to put together an exhibition entitled *The History of the World in 100 Objects*. The *History of the World* served as a showcase of the extraordinary collection under the care of the British Museum, and also served as a reiteration of the notion of the museum as a place where the whole of humanity can be examined through objects. The project was made up of several components. Other museums were encouraged identify objects in their own collections, which were submitted to a central website, the archived pages are still available (BBC, 2013). The collection of representative objects by the British Museum resulted in a large collection of good quality digital images and descriptions of over 1,000 artefacts. This project heralded a significant change in the way that museums in the UK designed exhibitions.

The British Museum, alongside many other larger museums, adopted a narrative approach to exhibitions (MacLeod, *et al.*, 2012). A story was told through objects with a linear sequence. The major exhibitions leading up to the *History of the World in 100 Objects* had been referred to as the "*great ruler series*" (MacGregor, 2008: 9), focusing on the impact of one central person through history. Francis argues that the narrative approach used today in museums allows for a dynamic visitor experience (Francis, 2015), but at the expense of the reach of an exhibition. Francis uses literary theory to illustrate how two recent exhibitions at the British Museum, *Grayson Perry: Tomb of the Unknown Craftsman* and *Haji: Journey to the Heart of Islam* have evidenced that the British Museum's narrative approach to exhibitions can support multiple perspectives, but warns that narrative exhibitions have been developed from a literary tradition (Francis, 2015).

By tying programming to Big Themes, HCT is mimicking the narrative approach of the British Museum. But in doing so, is excluding potential audiences (McLeod, *et al.*, 2012) through presenting a *fait accompli*. When we consider the potential that the Web offers for multi-vocality, it is essential that we recognise the conventions of narrative as a way to separate a story from the history of the storyteller. Local museums must recognise the significance in declaring their political and social development as institutions as part of the staging of an exhibition. This is as relevant online as it is in the analogue world.

For the *History of the World*, there was an also an emphasis on the value of the objects, not as aesthetically significant, but as “*signals from the past*” (MacGregor, 2010: 3). The *History of the World* website currently has 5,677 objects, submitted by individuals, schools and museums. These objects act as user-generated signals, individual contributions were facilitated by uploading events. These were run by museums and supported by the BBC and the British Museum. Hampshire Museums Service uploaded only two objects to the website. Under the location ‘Hampshire’, the History of the World website has 104 objects. It would seem from this, that there is a substantial interest in the region for sharing user-generated content digitally with museums online, and this enthusiasm could be leveraged by HCT.

I.4 Campaigns Drive the Digital Offer

This entrepreneurial era in marketing for museums is a result of the shift in museums towards democratisation (Rentschler, 2011: 15). However, this interpretation is based on key journals in the arts sector (Rentschler, 1998; 2002), and so may not fully incorporate attitude changes in the era of high levels of Web and social media use by public institutions. The increase in the adoption of less official channels of communication by departments and individuals in organisations such as the UK Government (Shadbolt, *et al.*, 2012; Shadbolt & O’Hara, 2013; Bates, 2013; Jetzek, *et al.*, 2014), has an influence on the expectations of audiences for museums (see for instance Hausmann, 2012; Amtzis, 2014). Research has suggested that consumers are empowered by social media because they can communicate not only with companies, but with one another (Mangold & Faulds, 2009: 358). This idea of empowerment of the consumer is borne out in much of the academic literature around the impact of social media on the marketing and business world (Mangold & Faulds, 2009; Muk, *et al.*, 2014; Becker & Nobre, 2014; Dollinger, 2014; Su, *et al.*, 2015; Hudson, *et al.*, 2015; Killian & McManus, 2015; Öz, 2015). Marketing professionals working in the museums sector must keep up with this sea-change in marketing with multi-channel communications and providing many different audiences simultaneously with content that fits

their requirements, as well as responding appropriately to expectations of participation with the museums themselves.

HCT is currently going through a transition, and the Marketing Team are a large part of the new form of the organisation. The MO comments that the HCCAMS:

“...its transitioned from being a culture where there is no really marketing in the company and everybody had to do their own thing, to being a team where we solely have to own everything and we’re having to pull everything centrally and everything’s quite changing quite a lot at the moment and the way in which people are working is changing quite a lot...” (Smith, L. 8th September 2015, *pers comms.*)

The change to Trust has clearly prompted a rethink and the Marketing Team see themselves as working to centralise the work of the many venues and collections to one unified offer:

“...we ‘re learning and implementing kind of what’s going to work and trial and error, seeing how things are going to work and how we’re going to implement a brand across all of these venues that already have an identity um but we need to appear as Hampshire Cultural Trust as one brand.” (Smith, L. 8th September 2015, *pers comms.*)

This attitude is in line with the museums sector more generally, with funding for training from the Arts Council England (ACE) for regionally focused museums now being meted out by regional hub organisations. This structure, with major partner museums, which are larger and organise the sub-funding of programmes in their region through designation development funding and strategic support funding (ACE, 2014a: 3), is likely to lead to more centralised methodologies for delivering services, and in the way that training is received. This will therefore affect approaches to activities such as marketing in the local museums that have not been identified as hubs.

The MO has a clear idea about the remit of the role of the Marketing Team. Currently there is very little intersection between instances of HCT’s collections digitally online and the current social media accounts and website managed by the Marketing Team. The social media accounts are used predominately to advertise events and the website as a reference for visitors looking for venue information and to present a cohesive Trust to the public. One of the major issues for the MO is the nature of the followers of the social media platforms being used, Facebook and Twitter, as being made up of very different demographics. As the MO comments, there is an awareness of the potential positive benefit of combining the online collections database with the social media feeds:

“But in terms of future, it would be good to kind of blend the collections items and the events stuff more, but at the moment, it’s quite difficult, because they’re quite different audiences, so you; Being on one platform is quite difficult to put stuff out because it gets perceived very differently by different audiences.” (Smith, L. 8th September 2015, pers comms.)

There has been a fundamental misunderstanding in the way that local museums have been designing interventions through social media. The lack of participation on social media could signify needs rather than being representative of technical barriers (Mossberger, *et al.*, 2013). Absence of participation could be representative of real world barriers to participation rather than showing disinterest in participation. At HCT this is evidenced in the use of Facebook to advertise events because surveys of current page users have shown a demographic believed to prefer feeds that market family-friendly programming rather than content about collections.

The disconnect between the objects held in the stores and on display at HCT’s venues, and the digital content being created and shared via social media by the Marketing Team is a key area for focus. The MO explains this divide:

“...we actually do mostly our team is about doing promotion of events and exhibitions that are currently on, or up and coming rather than any work about the collections items that we have that aren’t on display, or that kind of thing.” (Smith, L. 8th September 2015, pers comms.)

One issue may be that the MO and the rest of the Marketing Team do not see their work as resulting in digital content for HCT. The social media accounts are treated as billboards that are transient in nature. The DCO approaches the social media accounts as exhibitions that are permanent and have longevity to them.

The focus, for the MO is on attracting visitors to venues. This is carried out via social media through the medium of campaigns, predominately driven by the Big Theme for the year, but also as a response to user interactions. The MO’s work is very audience-focused. User-generated content is encouraged and when received, is seen to have a positive impact on the general brand, as this description of a user submitted video of a visit to a venue illustrates:

“... it was like really, really cool and they sent it to us on Facebook and it meant we could share it and its more content that we, its proof that we don’t have to make our own

content and say, look how good it is, come, we can just share other people's and it shows it for themselves." (Smith, L. 8th September 2015, *pers comms*.)

I.5 The Curator of Archaeology

The Curator of Archaeology (henceforth CoA) at HCT has worked with the collections for over fifteen years. During observation at the archaeology stores, it is clear that his knowledge of the archaeology of the area and of the archaeological archives is substantial. The team that cares for the archaeology collections has taken many forms over the years. Currently, the CoA is a role that works as part of a group of curators who are based at Chilcomb House, near to Winchester. The HCT curators care for the collections that are in storage at the site as well as those that are on display at the various venues managed by HCT. Other curators include a Curator of Social History, a Curator of Fine Art and a Curator of Natural Sciences.

The centralised organisation structure of the HCCAMS, and now of HCT, means that the role of 'curator' has maintained a traditional form (Heinich & Pollak, 1996; Foley & McPherson, 2000; O'Neill, 2007). The CoA is the only staff member who focuses on the archaeology collections, although other centralised teams are called on to support particular activities, such as conservation. In the period of Renaissance, discussed in Chapter 3 of the thesis, there were 2.5 keepers and a conservator dedicated to the archaeology collections. The role of the curator has developed to be less about caring for objects to being more about the active part of production of presentations of objects (O'Neill, 2007: 15). In line with the rest of the museums sector, this predominately takes the form of temporary and permanent exhibitions.

At HCT, it seems that the tasks carried out as part of the role of curator at HCT are the bare-bones of a more traditional curatorial role with a focus on care and practice rather than discourse and production. This due to much of the additional responsibility that many curators of smaller museums find necessary being out-sourced to support teams, such as the learning team who manage the education and outreach programme. At HCT, these teams are the decision-makers for much of the public-facing work of the organisation, and the curators therefore often find themselves as support staff to these teams. This give-and-take relationship works well for many kinds of tasks, but the curators are currently an under-used resource.

The curators at HCT look after the objects under their care, but are not responsible for collections conservation. This is carried out by a centralised team of conservators. The curators play a part in identifying objects that are appropriate for upcoming exhibitions, but often do not play a direct role in the design of exhibitions. These are designed and staged by the centralised exhibitions

team. The curators research into object histories and archaeologies and provide biographies on request to other teams within HCT, and ensure that objects can be accessed through requests from researchers. Although the curators often photograph and augment digital object records, therefore taking part in the digitisation of objects, they do not actively digitise the collections. This is carried out by the Digital Collections Officer (DCO) who creates digital content from across all of the collections. The curators write information tailored for many different audiences, but this is generally at the request of the exhibitions team, or the learning and outreach team, who design and deliver the schools and family-oriented programmes for venues. The curators have very little direct involvement with marketing and communications, which is carried out by the central marketing team. Day to day decisions about the objects are made by the managers of the venues.

I.5.1 Understanding the archaeological archive

The CoA describes his major concerns as being about: “...*looking after the collections, and its use of those collections...*” (Allen, D. 25th June 2015, *pers comms.*), and this is the key focus of all of the activities that are carried out on a day-to-day basis. This seemingly straightforward statement contains within it a multi-faceted role that includes several responsibilities. The CoA manages a legacy collection of archaeological archives as well as standalone artefacts, as well as accepting into the collection newly created archives from ongoing archaeological work. HCT finds itself to be increasingly unusual in its ability to continue to accept archives. Many local authorities have stopped taking objects as part of an archaeological archive, due to lack of space and funds for storage of collections.

The situation for the care of archaeological archives in England is certainly at crisis point. In some counties, the responsibility has moved away from the local authority to a local society, and in some instances, there is no allocated repository at all. In 2012, a survey by the Federation of Archaeological Managers and Employers (FAME) estimated that there are approximately 9,000 archaeological archives in England that are being held by archaeological practitioners because there is no store or museum that will accept them (Smith & Tindall, 2012: 101). For example, in the South East area, within which HCT falls, research by the Society of Museum Archaeologists (SMA) in 2012 found large gaps in areas where no museums were collecting archaeological archives. In Bracknell Forest, Slough, Windsor, Maidenhead, Wokingham (all previously covered by Reading Museum), Kent and Medway there is currently no option for depositing archaeological archives (Edwards, 2012a: 18).

To elaborate on this, the work by the SMA to review current practice in the deposition of archives to local authorities contains several alarming findings, which are based on reports from the field. This record for Chertsey Museum in table 19 overleaf illustrates this point:

Museum:	Chertsey Museum
Area details:	Runnymede
Further details:	We do not have the space to store lots of boxes which invariably cannot ever be displayed and no-one ever wants to look at!
	This museum is NOT accepting archives.
	There is no archaeological curator at this museum.

Table 19 – Society of Museum Archaeologists, Map of Collecting Areas. Record for Chertsey Museum, August 2012 (Baxter, 2013).

Note the comment from the museum justifying the current status:

“We do not have the space to store lots of boxes which invariably cannot ever be displayed and no-one ever wants to look at!”

This type of reaction to archaeological archives shows a chronic underestimation of the value of the resource. At HCT, the situation is much more positive. The CoA at HCT has been very active in the development of guidelines for archaeological curators, being a key member (including the role of Chairman in 2010-11) of the SMA. He has informed the development of key evaluations of the current state of archaeological archives in England (Brown, 2003, 2011; Edwards, 2012a). The CoA at HCT has a clear idea about the importance of ensuring the availability of archives, as is evidenced in this statement:

“I think that the sort of parallel strand is the PS5, PPS5, that you know, archives are produced, archives are for everyone to use, and must be available and accessible, and you know it may be the language but it, that’s been missed by those who are – just what a resource it is.” (Allen, D. 25th June 2015, pers comms.)

There is acknowledgement here however, that there is a challenge in presenting archaeological archives to the public. At HCT, a substantial portion of this challenge is the ability of the organisation to cope with increasingly digital mediums that make-up part of the archives. Other local authorities have begun to explore alternative ways to deal with the digital parts of the archives. For instance, Plymouth City Council (PCC) has recently mandated (Plymouth City Council, 2012: 4) that all born digital content that forms part of an archive must be deposited with the ADS. PCC also plans to extend this centralised digital deposition to all written documentation associated with an archaeological archive, at the depositor end. This is a significant shift in the way that archives are dealt with by local authorities with Historic England Approved Status as organisations that are accepting archives.

Recommendations agreed by the SMA as part of ongoing research into the current situation for the deposition of archaeological archives include the following statement:

“Promote the potential of archaeological archives as a resource for engaging all communities.” (Edwards, 2012a: 9).

It is this particular recommendation that provides a focus for the findings for this thesis, and this research intends to contribute directly to the achievement of this aim. The move by PCC to encourage that the digital component of an archive be planned from the outset, and that it be maintained by a nationally recognised body, such as the ADS, represents a significant opportunity. The effect of this new model for the deposition of archives could be to free-up resources for curators of archaeology, in order that they can focus on emphasising the links between information held in local and national collections, thereby increasing the reach of the work that they do.

I.5.2 Access to archives and objects online

A significant part of the work of the CoA is ensuring that people can access the collections and the associated archival materials. As there is no large-scale digitisation programme at HCT, the majority of materials can only be accessed through appointments in person at the archaeology stores. The CoA is keen to improve this situation and works with a team of volunteers to digitise materials whenever possible within the rest of the daily tasks. These digitised materials are then stored at HCT’s headquarters and can be accessed by visitors to the site. Almost all visitors are researchers who have requested specific materials, although there are some exceptions, for instance university students visiting as part of a trip to see the headquarters more generally.

The diverse agendas of museums has been accompanied by increasing diversity of information sources. These are replacing much of the facilitation of knowledge-building activities of memory institutions such as museums, libraries, and archives. For instance, several Web-based experiences of increasing popularity challenge the previous monopolies of organisations such as libraries, universities and museums on knowledge creation (Daniel, 2012; Dempsey, *et al.*, 2014; FutureLearn, 2014; Google Books, 2014; HathiTrust, 2014; KhanAcademy; 2014). Local museums are struggling to keep up with these kinds of innovations.

Online, the archaeology collections for HCT have very little presence. The HCT website has a section dedicated to the archaeology collections, but information is very general, listing major excavation archives and finds held in the stores and suggesting that interested parties contact HCT for more information. The CoA has been working with graduate interns at HCT to maintain a Wordpress blog, *Hampshire Archaeology* (2014), which has been online for 18 months (as of October 2015). The CoA, with help from the core team of volunteers at the archaeology stores, publishes a new post every Monday. Each post describes an object or archaeological project cared for by HCT, and includes the accession number for the relevant artefacts or archival materials, some images illustrating the description, and one or two suggested titles for further reading. The blog does not have very high readership, but is regularly updated with content.

I.5.3 Online collections but lost objects

The CoA is interested by the potential of digitising images of objects, and is aware of organisations that have benefitted from sharing content digitally through online collections databases. The CoA describes the situation of objects from HCT's collections appearing online thus:

"...quite a lot of the collections are 'online' if you can find them... the digital side of things... is literally it's all over the place. In that you think you've exhausted the ceramics pages, and all of a sudden you'll press a key and you know, as you say 200 teapots will suddenly emerge and it's really by luck that you find them as much as by anything else. (Allen, D. 11th June 2015, pers comms.)

HCCAMS did not have a collections database. When it was shared online originally it existed as a standalone resource. This was later changed and the emphasis of the website was on accessing objects through themed collections. The online collections database which is still accessed by viewing objects organised thematically currently contains no objects from the archaeology collections. Social history (represented by objects such as purses, headwear, and fans) and fine arts (represented by selected topographical prints, photographs, and paintings) are represented

with some collections and there is a small selection of prints making up part of a herbarium held within the Natural History collections.

The online database for the Portable Antiquities Scheme (PAS) (2014), a DCMS funded project for public recording of archaeological finds, illustrates the potential for sharing of archaeological artefacts online. Submitted records have been used for numerous research projects, although to date there has been few attempts to present the data away from the database in formats such as online exhibitions. PAS data has more commonly been used to produce published reports and support desk-based assessments or research by students of archaeology (Portable Antiquities Scheme, 2015). The CoA perceives the online collections database of WCC, now a partner in HCT, as a good use of the Web to share collections. But there is little evidence of reuse of content from these pages. There no reuse of images from the Winchester museum collections website (2014) is evident through using TinEye (2014), a reverse image search plugin.

Within social media, the idea of curation has increasing popularity on the Web. Seen as emblematic of the information age (Christov-Bakargiev cited in Balzer, 2014: 9), the curator's role enacted through the many social media tools and platforms that rely heavily on social curation. In the cultural heritage sector the use of volunteer 'curators' to carry out tasks that are time-consuming is appealing (Noordegraaf, *et al.*, 2014). This trend to curation and crowdsourcing of tasks previously carried out by museum staff can be seen to be supporting inequalities on the Web.

The issue of social curation online gaining increasing popularity has caused ripples within the museums sector. Reactions are both positive and negative. Conversations from within the museums sector about the appropriation of the term 'curation' online emerged around 2010, when bloggers shifted from describing their collected content as 'collecting' to use the term 'curating' to express a way of sharing content online that had added value began to gain following. When positive coverage within blogs of this movement began to increase in 2010, there was a reaction from the museums sector by professionals to attempt to reclaim the term that had been so long synonymous with a professional museum skills set (Balzer, 2015; BBC News, 2015; The Daily Mash, 2015). Museums have their own vocabulary, which serves to describe objects, places, people and events through the lens of the narrator. The terms used by museums aim to categorise and present things within narratives constructed by curators. These include terms such as 'curate', 'conserve', 'exhibit', and 'collect' (Belcher, 2012; Fenton, A., 2012).

Online, on the Web, we see today an increase in the use of the term 'curate' to describe collections of content from distributed locations within one place. This trend in 'content curation' has been steadily on the rise since 2009, when the term first began to appear on blogs relating to marketing (Bhargava, 2009; Legrand, 2010; Carton, 2011; Kanter, 2011), and online publication (Williams, 2009). Curation online is an attempt to sift through the large amounts of information that is on the Web, to re-present content staged within new narratives. There are many content curation tools, who brand themselves as social media that aim to provide methods for finding and sharing information that is thematically linked. Tools are aimed at types of content, such as Scoop.it (2014) and OpenTopic (2014) which facilitate news curation, or Pinterest (2013) and Dribbble (2014), which support image curation, or Enginuity (2014) and zResearch (2014), aimed at curating Web searches through social sharing. There are also tools which aim to support the presentation of found content, such as Zeef (2014) and Pearltrees (2014) which are designed for exhibiting curated content.

Museums have been attempting to engage with this particular aspect of social media through taking activities that occur online within platforms and presenting recorded actions within the walls of the museum. Common approaches involve the facilitation of visitor curation through social media. In doing this, museums are affording authenticity to social media tools' approximation of models of curation as they occur online. An example of this is the 2013 *>LIKE IT!<* exhibition held by the Essl Museum in Klosterneuberg. *>LIKE IT!<* invited followers of the museum on Facebook (2014) to select favourite images and these were then curated to form an exhibition by a committee of guest curators selected from page participants. The images for selection were added to the Essl Museum Facebook page by the museum and participants were part of this Facebook page. Whilst this uncritical restaging of already existing content does not fairly represent the potential of the role of the museum in contributing to the critical analysis of social media on society, this does represent a significant gesture by a museum towards the potential of social media for participative models of exhibition design and staging. Curatorial skill is not being expressed through social media and participants are not afforded the opportunity to experience the potential of curation as an experience of heritage. This is not a criticism of the Essl Museum project as it is a positive example of the use of social media, but at HCT it would be problematic to embed the expertise of the curators into the activities of users, and this could present an issue as it fails to express the complexity of curatorial practice.

The digital content that is being created by people on the Web through constitutes a digital social history and this can be curated by all (Proctor, 2010). In claiming that any individual can engage

with the complexities of curating objects that have been born-digital in opposition to real-world objects which require expert curators, there is a knock-on effect of the devaluing of digital content. This seemed to be a real concern for the CoA and the DCO. Curators could be voicing a need to find mechanisms to cope with the sheer quantity of objects that are being created digitally, and could be supporting curation through mediating what Stimler calls “*citizen-curator*” work (2009, cited in Proctor, 2010: 40). It is telling that a popular metaphor for the Web today is that of the museum. On social media, it seems that everyone is curating. Local museums need to find a way to adequately express curation within a world of self-professed curators.

I.5.4 Protecting content over sharing content

The CoA highlights the general attitude of HCC when designing the original website, which was planned from a standpoint of protecting content, rather than of sharing content:

“And of course what’s been done with those [images of objects on HCT’s website] is that they’ve been topped and tailed in purple and orange.” (Allen, D. 11th June 2015, pers comms.)

This has implications for future plans for digital content sharing as the images that have been ‘watermarked’ would need to be photographed again as it is very unlikely that the original form of the images was preserved, and this would be very resource-heavy. The added complication for HCT is that the images were watermarked with HCC branding and this makes them unusable in the new form of the organisation.

In 1997, the Museum of Fine Art (MFA) in Boston outlined the potential for digital content on the Web for museums was as follows:

“There are two messages: first, get those images “out there”, and second, increase revenue by broadening accessibility to the Museum’s collection, while maintaining high standards in the use of MFA images.” (Sorkow, 1997: 166).

This sentiment was common within the arts and cultural sector at this time. MFA’s statement provides a comparison through which to consider a specific example, the impact of the need of local museums to identify revenue streams, in relation to the actual affordances of the Web.

In the above message by Sorkow, the MFA identified that there was soon to be a significant sea-change facilitated by the Web, and that museum collections would be coming out of storage. Less than twenty years later, there has been a huge shift in practice for curators and this has been

driven in part by the Web. But the 1997 paper could not have anticipated the additional complexity of Web 2.0. In the development of easy to use interfaces for editing and sharing digital content, the social Web has changed the ways that the Web has affected access to knowledge.

Digital content online is increasingly content that is being re-used. Online content has often been changed and repurposed by users, sometimes for totally unanticipated uses. On the Web today, the above statement is more problematic than early accounts predicted. Social media has been a driver in this revolution. MFA's plea to "...first, get those images 'out there'" (*op cit.*) is difficult for local museums. As examined in this audit, digitising contextual information relating to collections for sharing online is problematic. In addition to this, research into online revenue from digital images has shown that there is very little evidence that digitisation improves revenue. Studies show that libraries, museums and archives in the UK and art museums in the US have been unable to quantify the cost of the digitisation and to evidence any profit making through the provision of services online to charge for the reuse of digital images of objects (Tanner & Deegan, 2003; Tanner, 2004). This means that motivation for digitisation are hard to design for local museums that are answerable to governing bodies. Objectives must be measurable, and if there is no income generation from digitisation of collections, then impact must be evidenced in other ways. Traditional forms of visitor studies for evaluation of museum experience do not translate easily to measuring the reach of digital images, particularly those that have been openly shared online.

In relation to printed matter, it still makes sense for museums to make money from charging large publishers to use images, and this practice is still common for all types of museums. But online, the process for charging for digital images is complex. In fact, smaller museums are not making substantial income from digital images. The Art Stories project (2013) started in 2009 as a pilot supported by the Danish Agency for Culture, and aimed to investigate the potential of digital images of artworks shared freely online (Sanderhoff, 2014: 55-58). The project found that a collective agreement on copyrighted images was problematic as it needed copyright to be addressed at an individual level, request-by-request, not possible at more than a pilot level. The project organisers realised that the local museums were copying the larger museums' approach to charging for digital content (*ibid.*: 60). This approach is repeatedly evidenced in local museums adoption of technologies. There is little income to be gained from charging individuals for digital content, and there is much to be gained from making content available in a way that facilitates reuse.

The second part of MFA's plea (Sorkow, 1997: 166), for the maintenance of high standards of reuse of digital images online, is also highly problematic in today's manifestation of the Web.

Protective licensing of digital content will not necessarily protect images from being changed. But this is not necessarily of benefit to local museums. Social media provides a tool with which to enable this re-contextualising of digital content by users, and this can result in a more positive benefit to users than a high-quality digital image that cannot be freely reused. *VanGoYourself*, see figure 41 overleaf, challenges visitors to the website to recreate artworks using themselves as the central character (2014). The project is run by Culture24, supported by Europeana Creative and contains images from several museum and gallery collections.

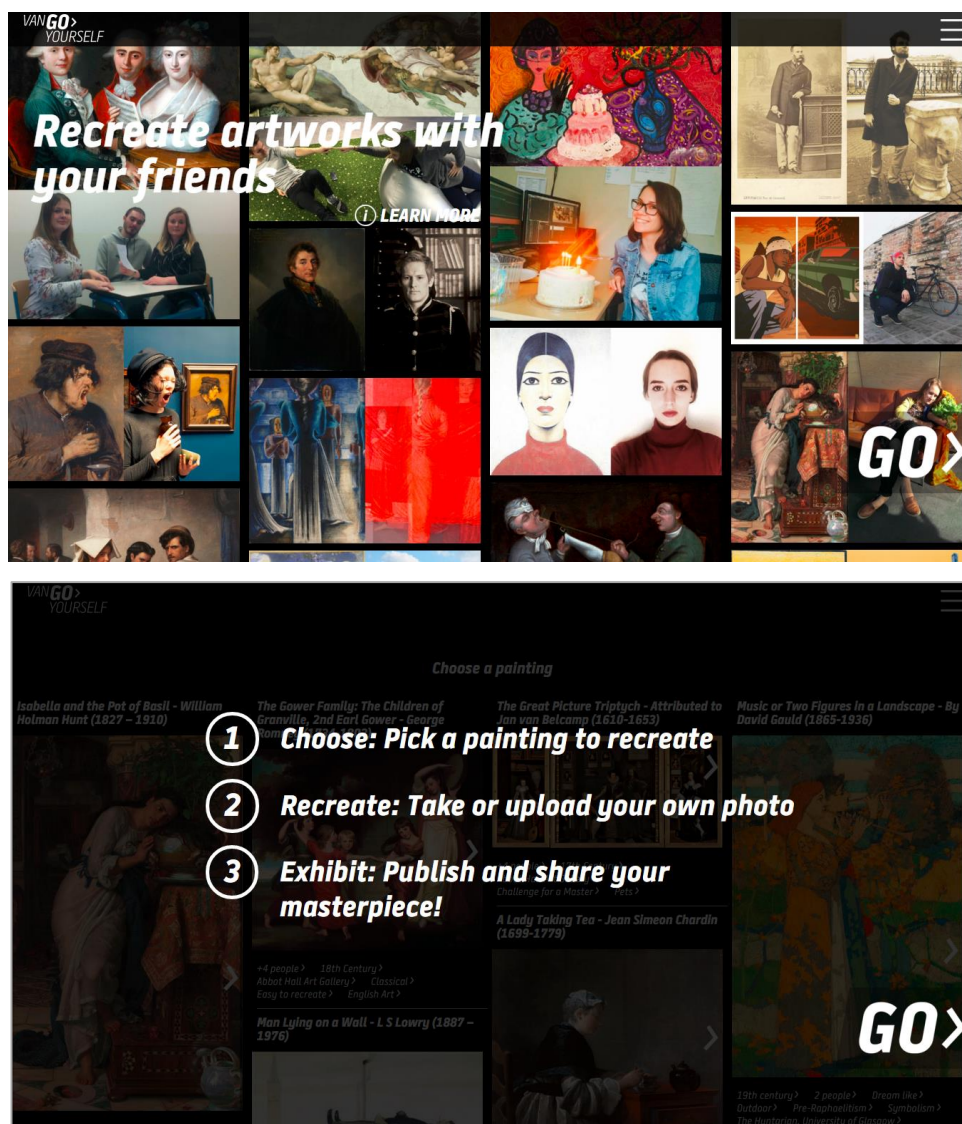


Figure 41 – VanGoYourself website encourages users to submit new, derivative versions of artworks (2014).

This project has resulted in numerous experiences with artworks within which considerable time and effort has been spent by participants. This is evident from the resulting photographs. Long term impacts of an extended experience with an artefact are a key objective for museums. For most Web-based experience of digital content from collections, however, the impacts are less measurable. Digital objects are not experienced through self-contained websites such as this one,

which demands feedback in the form of new photographs. Most experience of museums online is through the one-way contact of content by a user. Within social media, in the current form of use by museums, the impact of this particularly hard to measure.

Social media could be seen to represent a move back towards to the MFA's 1997 perspective of the Web. Despite seeming to encourage creativity through playful use of digital content, social media generally function as restrictive rather than open systems. Within the most common social networking platforms for example, there are locked down areas that require user accounts, and there is an increased use of platform dependent media sharing. In this way, social media is reducing the ease with which content can be shared. It is not synonymous with the open ideology of the Web.

I.5.5 Skills deficit results in misuse of technology

HCC responded to the change in exhibitions trend examined above in the same way that most larger local authority ran museums reacted; by developing similar national museum inspired narrative-based exhibitions. For Hampshire Arts and Museums Service, this took the form of the development of the Big Theme programme. An annual theme supported by programmed events across multiple County Council-managed venues. The first Big Theme launched in 2014, occurring just as HCT came into being. The theme was inspired by the World War One Centenary, *Soldier's Journey*. HCT took the approach of creating a standalone website for the Big Theme, and this model has continued into the second Big Theme, *DinoFest*. The DCO reflects on the aims of the *Soldier's Journey* website (HCT, 2013), stating that there were two major objectives:

"One was to advertise the exhibition and to increase footfall and the other one was to increase access to it." (Ellis, L. 11th June 2015, *pers comms*.)

This was certainly achieved in the first part. Visitor numbers were high, and audience research showed that many people had come across the Big Theme website, and that it had motivated visits to venues. Online however, there is less evidence of engagement with the collections or the topic. There is very little interaction on the website between HCT and users.

Disqus was used in the *Soldier's Journey* website to elicit comments from visitors, but very little follow-up to any user submitted content occurred. Of the 44 comments in the Disqus forum for *Soldier's Journey*, 33 have been submitted by visitors (the remaining 11 are comments by the website administrator), and around 5 individuals are represented. Of the 33 comments, many of which are direct enquiries, only 7 have responses from HCT. All of the comments are attached to

digital images from the collections of the three Big Theme partners, apart from one comment which is a response to a competition run through the website. The following comments are all illustrative examples of the potential for discussions around the significance of heritage and the work of local museums. These are no responses to these comments, which is due to the high levels of resources required to operate discussion forums in a timely manner.

"I am writing a book about Schooling and the Great War and the militarisation of childhood. Would it be possible for me to use this and similar images? Are they subject to copyright?" (Barry Blades, 2014: Comment 717)

"Hi, I'm researching the Hursley Park Camp as part of the village's commemoration projects, would it be possible to get a copy of the card, and in particular the message from Hursley?" (Hursley Park history, 2014: Comment 84)

"What a great picture of the hospital. Why, oh why, was this magnificent building left to fall into disuse/disrepair, a plight that led to vandalism and ultimately its demolition...?" (Ray Turner, 2014: Comment 3760)

In fact, amongst all the comments on the Big Theme website, there are only two that do not request a response. This shows a very high level of engagement potential. HCT's use of the discussion forum tool is fairly representative of analogous sector's use of social media for communicating with stakeholders and building support. In the non-profit sector, research into the use of Facebook by charities for example shows that it is used to share information, but very rarely to enable supporters to get involved in work or events (Waters, *et al.*, 2009: 105). The sector acknowledges that a key barrier to improving social media use by non-profits is the availability of resources and the failure to achieve commitment, illustrated in Briones' study of Facebook and Twitter use by the American Red Cross (Briones, *et al.*, 2011). The lack of responses on the Disqus forums could be due to a skills gap at HCT, as it could be representative of a lack of appreciation of the resources required to maintain a social media tool such as Disqus. There is a need to recognise the potential themes from comments left in social media as starters for deeper engagement. Research into brand communities can inform the approach here, as these groups of specialised users are situated in the context of consumption of a service, although museums offer more than a single product, the brand community can facilitate information sharing between other users and the organisation, but this must be mediated by trust (Laroche, *et al.*, 2013).

A significant challenge for the adoption of social media as directed to specific problems experienced by local museums is the development of digital capability within the museums sector

(MTM, 2013: 37). As part of this, the need for skills for social media use must become a key focus. Current conceptions of skills development in the sector are summed up by a key commentator in the open movement, Merete Sanderhoff:

“Similarly, my position as an art historian occupying a job within the digital field makes me painfully aware that my professional qualifications only meet some of the real requirements of the job.” (2014: 26-27)

Sanderhoff believes that most of the people working with digital in the cultural heritage sector are *“DIY learners”* (*ibid.*: 28). The presence of this skills gap in local museums has led to a tendency to gain access to digital capacity through cultural commissioning (De Laurentis, 2006; Trends Business Research, 2013a: 52). This outsourcing is deferring the problem with an unsustainable model as commissioning requires high levels of funding, although it has received much support recently in the arts and culture sector (Bull, *et al.*, 2014). For social media however, there is an attitude that the required skills can be self-taught. This is apparent in the disparity between advice on commissioning ICT related resources such as website design and online collections management systems functionality offered by support bodies such as MA and CT (2014b, 2014c, 2014d, 2014e, 2014f), compared to the scarcity of advice regarding practical use of social media by these organisations. As discussed in chapter 3 of the thesis, much advice on social media use focuses on the potential impacts for marketing and communication, rather than on building digital capacity for social media use within the activities of the institution.

There are several communities that support the development of digital skills in the museums sector, and these groups are leading the way in the use of tools such as social media. These include the MCG (2014a), the MCN (2014a), Open data for Galleries, Libraries, Archives, and Museums (OpenGLAM) network (2014) and the Linked Open Data in Libraries, Archives and Museums (LODLAM) community (2014), and there are also noteworthy event-led communities such as the Museums and the Web annual conference (2014b), and MuseumNext (2014a), an annual best practice conference for digital technology in museums. The most significant research in the museums sector to date that attempts to identify the way forward for museums’ use of digital technologies is the Digital Research and Development Fund for the Arts (Digital R&D) (MTM London, 2013).

The first report from this project identified a top ten percent of *cultural digirati* organisations (MTM London, 2013). These organisations are believed to be leading the way for arts and culture use of technology in the UK. This report also found that support for innovation in digital directions

comes predominately from informal mentors and partners (*ibid.*: 40). Workshop attendance is low down in the list of potential sources of information. For smaller local museums, the events organised by the networks named above are prohibitively costly. The MuseumNext conference ticket for an individual attendee currently costs £500 (2014b). The networks identified above are of importance in providing advice for change, but cultural organisations claim that barriers to technology use are predominately derived from lack of funding that can be allocated to digital projects and lack of in-house staff time (*ibid.*: 37-38). As time is a major factor, the availability of conference and workshop outputs online is not necessarily a viable option for local museums. My own experience in local government museums is that there is little chance that paid staff in a local museum would be able to justify the time spent collating information from these events through interrogating several videos of presentations over other tasks. Because of this, a major output of this thesis is a booklet and accompanying website that condense this research into easy to read formats aimed at providing quick reference points for in-house research.

The cultural digirati are not named but local museums are unlikely to find themselves in the top ten of organisations using digital technologies. This is because their organisational make-up does not fit with the structure of the cultural digirati as identified by the Digital R&D research. For instance, the cultural digirati are twice as likely than other organisations to have digital expertise dispersed across the organisation (*ibid.*: 4). However, they can make use of the characteristics identified within cultural digirati to support the development of approaches to social media based on lessons learned from this top ten percent.

Identification of approaches used by the cultural digirati can be problematic because of the lack of time that local museums staff can spend on researching resources provided by these networks. Instead museums must rely on the digital support communities identified above to share information about new methodologies via mailing lists and blogs. Local museums need advice on ways to track down analogous projects and how also to identify lessons learned from projects in order to best use external experience to their benefit. This lack of time but acceptance of a need for case study examples is seen at HCT, as discussed in the thesis. The framework developed as part of the thesis must go partway to fulfilling this need.

Heritage100 and *Soldier's Journey* both highlight the importance of developing skills within the organisation in order that the implementation of social media is supported. The identification of skills required to leverage the tools being used needs to occur before implementation, in order to ensure that promised functionality, such as discussion forums, can be delivered from an organisational perspective. In the both of these examples, the identification of the tool has led to

the submission of user generated digital content in a format that makes it hard to extract and to re-use for the benefit of other people or for the collections.

Across the social media platforms, there is evidence of lack of resources to cope with the implications of the use of social media. For example, on the Facebook page there are some general news items that concern objects, such as this photograph that shows bronze tools returned by the British Museum due to be displayed at a Trust venue, the Museum of the Iron Age in Andover, see figure 42 overleaf. The post is not followed up with installation information.



Figure 42 – HCT Facebook photo and comment (2012).

Within the HCT website, the only objects from the archaeology collections that are represented as two of the ten 'Collections Highlights' objects that appear as the first menu item in the section of the website dedicated to collections (HCT, 2015c). These highlight pages have one to three medium resolution images (width of 600 pixels suitable for Web viewing) of the object and a 500 word description of the object. These highlights have obvious limitations as they do not link to any other online content or suggest further directions for finding out more about them. The CoA is enthusiastic about sharing digital content created from objects in the collection, and favours an approach that showcases particularly appealing objects. For him, the collections should be shaping the digital offer, by being the major focus for digitisation and for interpretation.

I.5.6 Augmenting volunteer experiences

The process of digitisation itself is one of the biggest barriers for local museums, and although many staff in local museums are involved in digitisation, it is not a priority for most. Changes to attitudes could be achieved through providing case studies, and this is outlined in Chapter 6 of the thesis, but ways to improve the pipeline for digitisation must be found to reduce resource levels

for projects of digitisation. One approach is to digitise in a piecemeal manner, embedding digitisation into other tasks that are considered as essential.

Volunteers can also play an important part in the digitisation agenda. In a 2012 SMA survey, which reviewed the situation for archaeology curators in England, results signified that volunteers are engaging with archaeology collections in high numbers. Almost 50% of all visits to the archaeology collections per year were by 'volunteer workers' (Edwards, 2012a: 71). In comparison to other types of collections, the numbers of volunteer visits more than double all other types of collection, such as local history or art collections (*ibid.*: 72). Although these figures are based on responses from a survey circulated to archaeology curators and the number of responses for figures from other types of collections was lower (*ibid.*: 71), there does seem to be a higher proportion of volunteer visits to archaeology collections generally. This is certainly the case at HCT.

As part of their everyday work, volunteers at the archaeology collections research into topics, using archival materials, objects, and publications such as monographs, which are held in the archaeology stores. There is also some use of online information, predominately Wikipedia (2014a), which volunteers use to gain an understanding of the context of information that they are collating. Almost all of the volunteers are happy to use MODES to search for artefact information, but there is less enthusiasm around adding new records to the system as this is quite complicated and there is a fear of making mistakes.

Volunteers digitise photographs and slides on a regular basis, and use desktop PCs to add information to MODESXML. The development of a reusable framework for digitisation that incorporated open licensing decision-making and online hosting and sharing options could provide a possible way forward.

I.6 Collections driving digital offer

Inspired by popular print publications about archaeology, such as the Current Archaeology magazine (2014), the Wordpress blog was initially created as a dedicated online space for the CoA to engage with new audiences online. The CoA describes the approach used in this way:

"And the big difference there is that we have not gone for the cataloguing side of things, we've gone for the magazine side. So we've gone for interesting information in a sort of page form um and are sort of just generating the pages and just feeding them in." (Allen, D. 11th June 2015, *pers comms.*)

The blog format was suggested to the CoA by the Digital Collections Officer, and was set up by a graduate intern who also wrote a brief guidance document for the CoA to use when she left HCT at the end of her period of internship.

For the first six months of the blog, the CoA had the support of the graduate intern to facilitate uploading of content. The intern also worked with another member of the internship scheme to produce a series of short videos which were uploaded to YouTube, with a programme of release dates over twelve months. The written guide to Wordpress, tailored to the specific blog installation, has enabled the CoA to continue to add content to the blog. The intern also connected the Wordpress blog to the Twitter and Facebook user accounts for HCT, so that a headline and URL are shared automatically to the walls of these platforms each time a post is published.

Since the intern left HCT, the CoA has had sole responsibility for the Wordpress blog. There has been a regular blog post each week, and the videos that were scheduled to be published on a regular basis are almost all now on the blog. There is an opportunity to consider future directions for the blog, particularly in view of the upcoming social media audit by the Marketing Team.

A potential use of the blogging format is the embedding of blog post creation into the routine care and maintenance of the collections. Currently, the CoA selects overarching themes and then identifies excavations or objects of interest from the collections that fit into the theme. For instance, the theme *Buried in Time* focuses on burials (human and artefacts). The CoA comments that: “...it’s just been like cherry-picking” (Allen, D. 11th June 2015, *pers comms.*) and when considering the way in which subjects for posts are selected responded: “You know I’ve probably I haven’t had to think for any real thing.” (Allen, D. 11th June 2015, *pers comms.*) Although selection has not been strategically aligned to any aims or objectives per se, the blog posts have provided a way to revisit particular archives.

Between 1st December 2014 and 12th October 2015, Hampshire Archaeology has published 49 posts that were under the theme of *Buried in Time*. In addition to this, there are 2 *Seeing the Light of Day* themed posts, 3 seasonal posts, 9 videos, and 1 miscellaneous post. Despite the themes being linked to major topics for archaeology in general and therefore through the archaeology collections of Hampshire, the blog posts are not currently driven by the everyday care of the collection, and the design of the programme for publication does not tie into any strategic aims or programme related activities.

For the CoA, the magazine format provides a way to restage something that has been occurring in the analogue world, the design of exhibition panels, in the online world. The blog posts are written for a general audience, and in much the way that an exhibition panel will have multiple levels of information, the blog posts are structured to give overall, general introductions to the topics, with more detailed information as the reader goes on, and further information available for keener readers in the form of references. The blog posts seem to be very popular amongst the volunteers, but not much work has been done to advertise the blog outside of the immediate referrals by volunteers and staff at HCT. The blog has been picked up by larger organisations twice, once shared via the Twitter accounts of the Current Archaeology Magazine (2015), and regularly copies a partial post with a referral URL appear on the Archaeology News pages of the Culture24 website (Miller, 2015a, 2015b, 2015c), the ACE funded charity that promotes culture through several online initiatives.

The CoA has commented that the actual content of the blog posts has been driven by his knowledge of the collections, there is a sense in which the blog has developed in an organic way, as an archaeological site, or artefact, occurs to the CoA, a post is planned by him, and then written by a volunteer:

“But probably the first easy round is sort of done. And you think, right, do we go round again. So in my mind, from the beginning, burials was a theme. That was what we started. The first burial was at Beaker next, and you know oh year Beaker, that will be a really good one, Bronze Age, and Jane had written up the other one. So once you’ve been through it, we’re now into the Medieval, um, so once you’re round, do you go round the block again? And um interspersed with that, there have been one or two seasonal ones, like Easter, um you know, you could do styles of pottery, you could do New Forest kilns, – “
(Allen, D. 11th June 2015, *pers comms.*)

The conversational tone of the blog, with its asides and comical interjections, means that there is a feeling of flexibility in the directions that it takes each week:

“It [the blog] was thematic, and that was pretty strong, and for the alternative ones, and it’s become a little more loose since then. I wonder whether anyone minds about that, I realize there are a few readers that they wouldn’t mind, as if it’s the next episode or something.” (Allen, D. 11th June 2015, *pers comms.*)

Although not acknowledged by the CoA, the blog has served as a way for volunteers to develop intimate relationships with the objects and archives that they write about. Each week one or two individuals are tasked with putting together a post, using materials gathered by the CoA.

The Wordpress blog was set up by the intern at HCT to automatically post updates to HCT's main Twitter account and Facebook page. As these social media accounts are not very heavily used this has led to the wall and feed being dominated by archaeology related content. The posts do receive feedback, but those most likely to have comments or replies are those posted by the intern or the Digital Collections Officer, who often picks up content for sharing, as these have more human readable titles. The image of a set of beads shared on the Facebook page with the title:

"Today's Archaeology blog post features the Portway East Saxon Cemetery in Andover: <http://wp.me/p4L6KJ-7s>" (HCT, 2015a)

Has one comment:

"I zoomed this up and I can see how beautiful and what these stones and beads are!"
(Robert George Garnham, 2015a)

The comment has no response, which is common with HCT's social media content, but it is representative of the potential of sharing aesthetically inspiring images from the collections. Figure 43 below shows this comment in context.

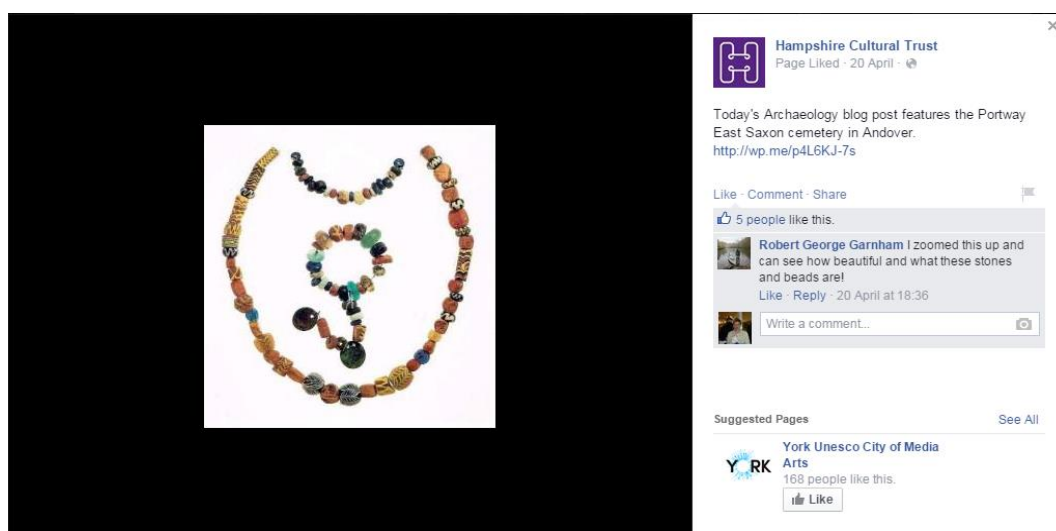


Figure 43 - Robert George Garnham's [robert.garnham.37] comment in context (2015a)

For the Curator of Archaeology (CoA) at HCT, the collections are the driver in shaping the digital offer from HCT. This is reflected in his use of social media to share information about the

Appendix I

archaeology collections, despite limitations on time and barriers to implementation of new digital ventures. The archaeology collections are represented online away from HCT's website through the Wordpress blog. This is maintained by the CoA, who writes content and facilitates volunteers in the archaeology stores to also write copy for the blog.

As the use of Facebook and Twitter by HCT has been on a piecemeal basis, the news feeds of the Facebook account have a high percentage of content created automatically by Wordpress from the *Hampshire Archaeology* blog.

Appendix J Example project proposal leaflet

J.1 Opening up your museum collections: Commons model

One way to open up your collections is to take part in the **cultural commons** movement online. This requires that you have some digital content available.

You don't need to have lots of content, just a few digital photos of artefacts, a short video of an excavation, or plans from the archives will be enough to begin with.

J.2 What is the commons?

Cultural commons on the Web is a relatively new movement that aims to provide openly licensed **digital content for people to reuse in creative ways**.

Uploading your content to an existing online collection is the easiest way to engage with the commons. Wikimedia Commons or Flickr Commons are well-established examples that you can use. Alternatively, you can add images to your institutional website, but with the licence information attached to the content.

You can read more about commons datasets by visiting one of the main Web-based resources for commons content: <https://commons.wikimedia.org/> and <https://www.flickr.com/commons>

J.3 Licensing

Firstly, you need to **make sure that your organisation owns the rights** to the content that you want to use. This content can be uploaded to the Web in many ways.

The important thing is that you **use open licensing to let people know what they are able to use this content for**.

For local museums in the UK, the rule of thumb is that you can consider open licensing for digital content if the content has been created by the organisation, is of something that is in the permanent collection, and if it is an original instance of the item (i.e. you cannot purchase the same thing elsewhere – like a copy of a book).

J.3.1 Kinds of licenses

There are a few different options that you can use to openly license your digital content.

Public Domain: Releasing your content under Public Domain means that it is completely open.

This is the highest level of openness possible for digital content. In most instances, this occurs when work was created before copyright was established or if the creator has been dead for more than 70 years. For example Shakespeare's plays. You can find the details about Public Domain licensing here: <http://creativecommons.org/publicdomain/> However, this is rarely possible with content that you will have from your collections. This is because there may be some copyright restrictions in other countries or specific intellectual property circumstances such as a work being orphaned from its original creator/owner.

For more information about the options for orphan works, see Korn, N. (2009) *In from the Cold: An assessment of the scope of 'Orphan Works' and its impact on the delivery of services to the public*, JISC Content, April 2009, Collections Trust: Cambridge. Available at: <http://www.jisc.ac.uk/media/documents/publications/infromthecoldv1.pdf>

You can apply for a license for orphan work through the UK Government scheme. This publication outlines the options: Intellectual Property Office (2015) *Orphan Works Licensing Scheme Overview for Applicants*, July 2015, DPS-002226/July15, Copyright and Enforcement Directorate: Newport. Available at: <https://www.gov.uk/government/publications/orphan-works-overview-for-applicants>

You can apply to the UK Government to license an orphan work: <https://www.orphanworkslicensing.service.gov.uk/apply/work/>

Creative Commons: This is a group of licenses supplied by Creative Commons (CC), a non-profit organisation that supports organisations and individuals to share digital content. This is a useful resource for licensing digital content from local museums. There are six different CC licenses that you can choose from:

Licence name	Short name	What you will normally see	Description
Attribution	CC BY		This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered. Recommended for maximum dissemination and use of licensed materials. This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms.
Attribution-ShareAlike	CC BY-SA		This license is often compared to “copyleft” free and open source software licenses. All new works based on yours will carry the same license, so any derivatives will also allow commercial use. This is the license used by Wikipedia, and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects.
Attribution-NoDerivs	CC BY-ND		This license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you.
Attribution-NonCommercial	CC BY-NC		This license lets others remix, tweak, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don’t have to license their derivative works on the same terms.
Attribution-NonCommercial-ShareAlike	CC BY-NC-SA		This license lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms.
Attribution-NonCommercial-NoDerivs	CC BY-NC-ND		This license is the most restrictive of our six main licenses, only allowing others to download your works and share them with others as long as they credit you, but they can’t change them in any way or use them commercially.

J.3.2 Options for implementation

To associate a license with content you need to specify when you upload the content under which license it is covered. Most sites, like Flickr Commons, will let you change the license once the content has been uploaded, but check this before you begin. If you are using your organisation’s website, to let people know which license you have released your digital content under, you can display a small symbol alongside your content, like those above.

J.4 Examples

There are some excellent examples of the reuse of digital content that has been shared by open license. The most common use for this kind of content is within blogs (websites that are updated regularly and tend to be more conversational in tone) run by individuals or organisations, some examples are listed below:

ResObscura: <http://resobscura.blogspot.co.uk/>

BibliOdyssey: <http://bibliodyssey.blogspot.co.uk/>

Public Domain Review: <http://publicdomainreview.org/>

Shorpy: <http://www.shorpy.com/>

There are many other examples of reuse of open license content. The Open Knowledge Foundation supports a network that promotes galleries, libraries, archives and museums, OpenGLAM. This network has several examples on its website: <http://openglam.org/open-collections/>

Creative Commons also shares case studies of the use of open licensed content:

<https://wiki.creativecommons.org/wiki/GLAM>

Collated GLAM Wikimedia categories: <https://tools.wmflabs.org/glamtools/baglama2/>

J.4.1 Aggregators and search engines

Europeana has partnered with over 3,000 libraries, archives and museums to share an index of open licensed digital collections: <http://labs.europeana.eu/data>

Crotos is a search engine (sort of like Google) that searches Wikimedia Commons and adds information from Wikidata (which contains the structured data from Wikipedia and related sites): <http://zone47.com/crotos/>

CC Search acts as a search engine for open licensed digital content from several collections including as Europeana, Flickr, Google Images, YouTube, Wikimedia Commons, and SoundCloud: <http://search.creativecommons.org/>

J.4.2 Museum content reuse examples

The Anubis Wikipedia article, which contains a rotating image on an Anubis mask that was submitted to Wikimedia Commons by Royal Pump Room in Harrogate, receives nearly 10,000 views per month (stats.grok.se, 2015c): <https://en.wikipedia.org/wiki/Anubis>

This is substantially higher than the viewings of an image of the same artefact that is on the page for the Royal Pump Room itself, which receives around 40 views per month (stats.grok.se, 2015d).

York Museums Trust has copied many of its images of objects from the online collections database to Wikimedia Commons. One particular success has been the Middleham Hoard article which was written by a Wikipedia editor with support from the Curator of Numismatics at Yorkshire Museum. In the past 12 months, the articles within Wikipedia that have included York Museums Trust images have been viewed over 2 million times (BaGLAMa, 2015).

Wikimedia Commons:

[https://commons.wikimedia.org/wiki/Category:Images from the York Museums Trust Online Collection](https://commons.wikimedia.org/wiki/Category:Images_from_the_York_Museums_Trust_Online_Collection)

York Museums Trust Online Collection: <http://www.yorkmuseumstrust.org.uk/collections/>

Middleham Hoard Wikipedia Article: https://en.wikipedia.org/wiki/Middleham_Hoard

Middleham Hoard Wikimedia Category:

https://commons.wikimedia.org/wiki/Category:Middleham_Hoard

Middleham Hoard Google Image Search: <https://www.google.co.uk/search>

J.5 Building advocacy

Two publications will be particularly useful if you are planning to make the move to opening up collections:

The Statens Museum for Kunst in Copenhagen has put together an anthology of essays that describes how opening up collections can improve the reach of museums, galleries, libraries and archives, Sanderhoff, M. (Ed.) (2014) *Sharing is Caring: Openness and Sharing in the Cultural Heritage Sector*, Statens Museum for Kunst: Copenhagen. Available at:

<http://www.sharingiscaring.smk.dk/en/>

The Powerhouse Museum in Australia have carried out useful work on business models for moving to open license, Bray, P. (2009) Open Licensing and the Future for Collections. In J. Trant and D. Bearman (Eds.), *Museums and the Web 2009: Proceedings*, Archives & Museum Informatics: Toronto. Available at: <http://www.archimuse.com/mw2009/papers/bray/bray.html>

J.6 Potential Wikipedia content for HCT

There are several Wikipedia articles that could be greatly improved by making digital content from HCT available. For example, the main article for handaxes has very few images of handaxes in it: https://en.wikipedia.org/wiki/Hand_axe

There is one photograph that has been added to the article that was uploaded to Wikimedia Commons by an individual:

https://en.wikipedia.org/wiki/Hand_axe#/media/File:Flint_hand_axe.JPG

The image has very little information associated with it and is out of focus. The caption reads *"Flint hand axe found in Winchester"*. The image has been reused several times in other places on Wikipedia. The page receives over 800 views per month on average (stats.grok.se, 2015a). HCT could contribute some high quality photographs of handaxes from the county.

Searching for 'Alton Buckle' in Google Images returns many images:

<https://www.google.co.uk/search>

Only two are provided by HCT. The majority of the rest are replicas that have been made by jewellers. These highlights the significant opportunities that exist to encourage creative reuse of HCT's digital content. There are several other opportunities. For example, the Anglo-Saxons article on Wikipedia receives over 10,000 page views per month (stats.grok.se, 2015b). There are several items that could be represented in this article. <https://en.wikipedia.org/wiki/Anglo-Saxons>

The Rijksmuseum in Amsterdam has the Rijksstudio initiative which provides high quality images and encourages reuse by sharing 200,000 artworks and setting up ways for this to happen:

<https://www.rijksmuseum.nl/en/rijksstudio>

The museum ran a design competition to encourage reuse of images. People made many different products, including handbags, underwear, condiment labelling, crockery, jewellery, and cushions. The Rijksstudio also encourages people to sell their personally designed products inspired by the collections on Etsy, which is an online community platform that provides tools to sell handmade merchandise: <https://www.rijksmuseum.nl/en/rijksstudio/131860--etsy/creations>

Appendix K Example project proposal webpage

Figure 44 below is a screenshot of the reference page for part of the Open Museums LOCCol approach that was used to discuss potential solutions with participants at HCT.

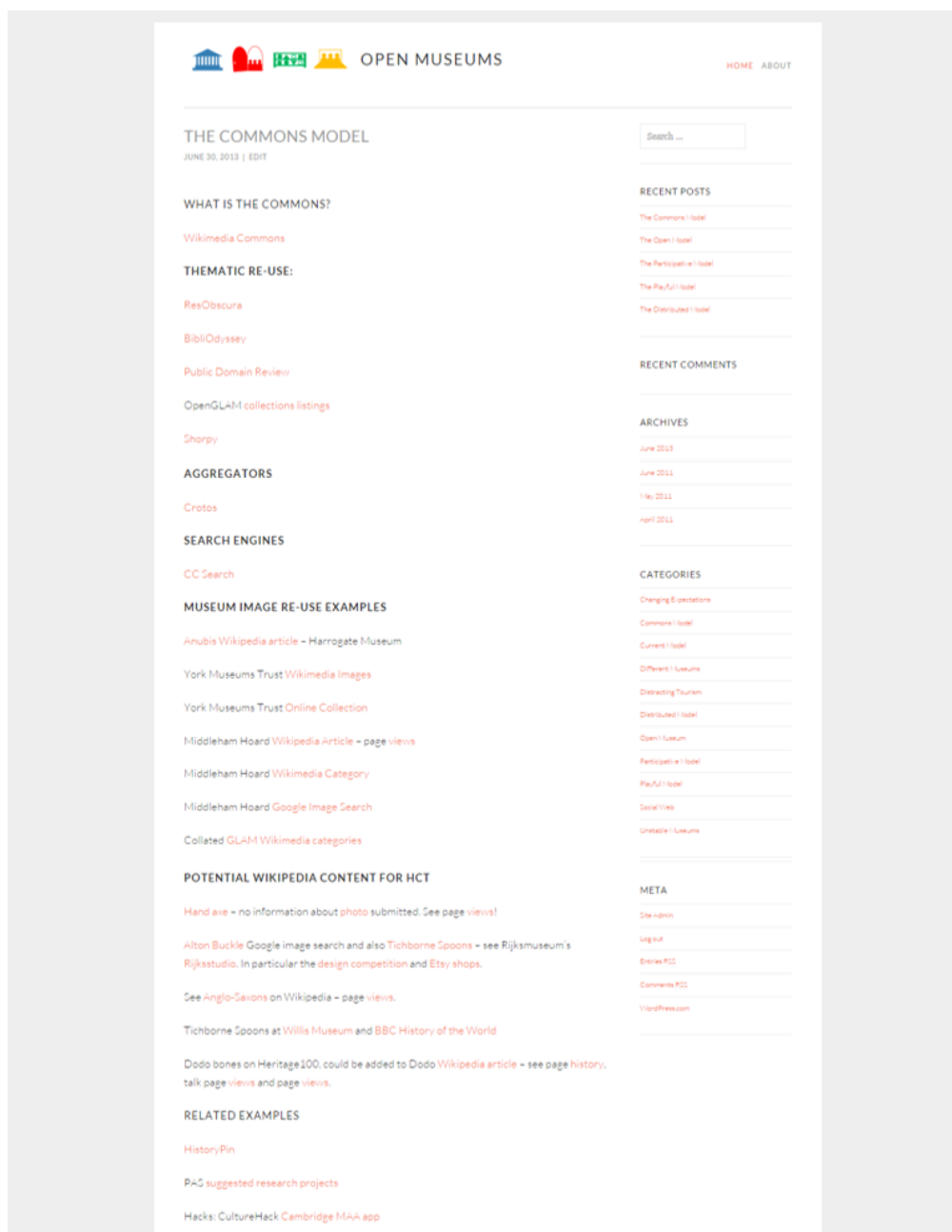


Figure 44 – Screenshot from localmuseums.org

Appendix L Screenshots of companion website

Figures 45 to 47 are screenshots of the MUSM framework as it appears on the companion website.



Figure 45 – Screenshot of localmuseums.org Museums Use Social Media Framework

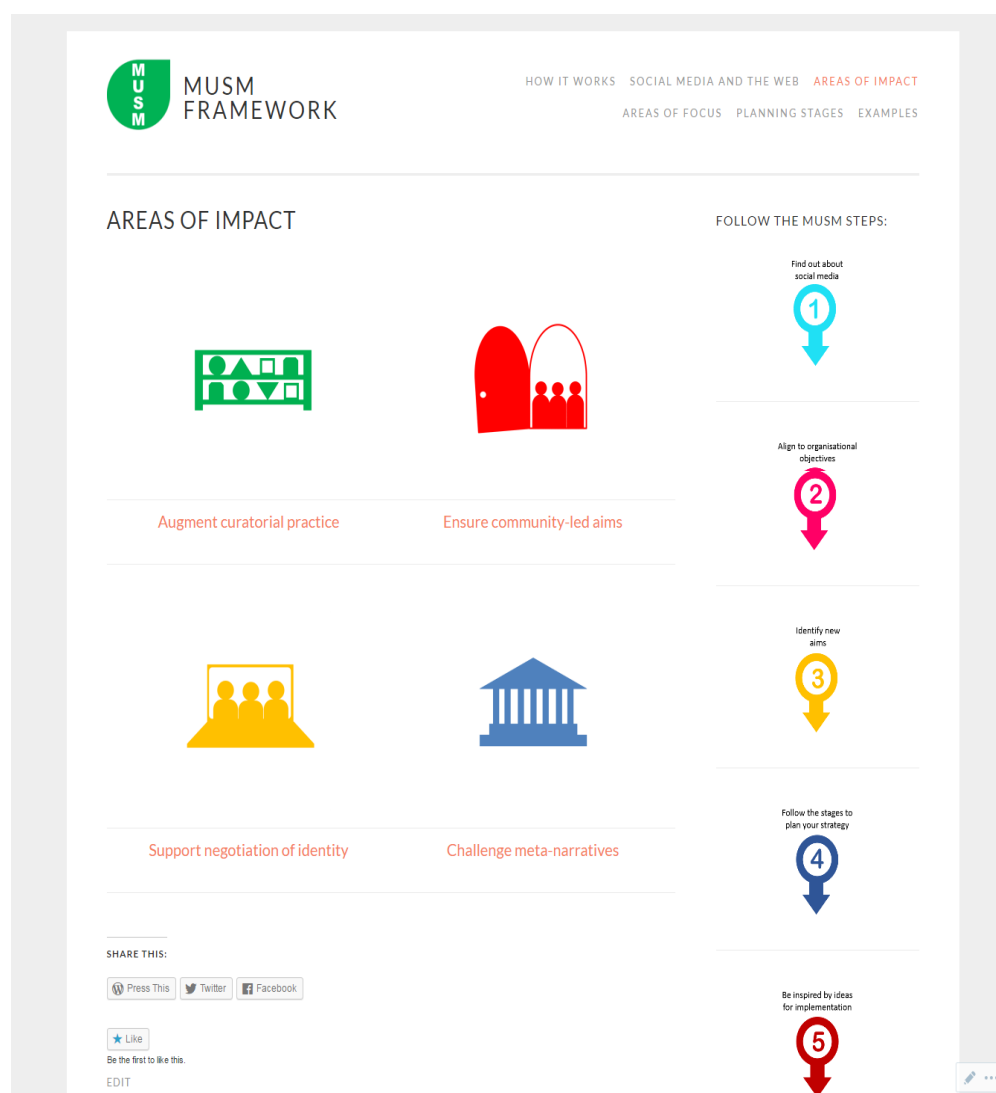


Figure 46 – Screenshot of localmuseums.org Areas of Impact

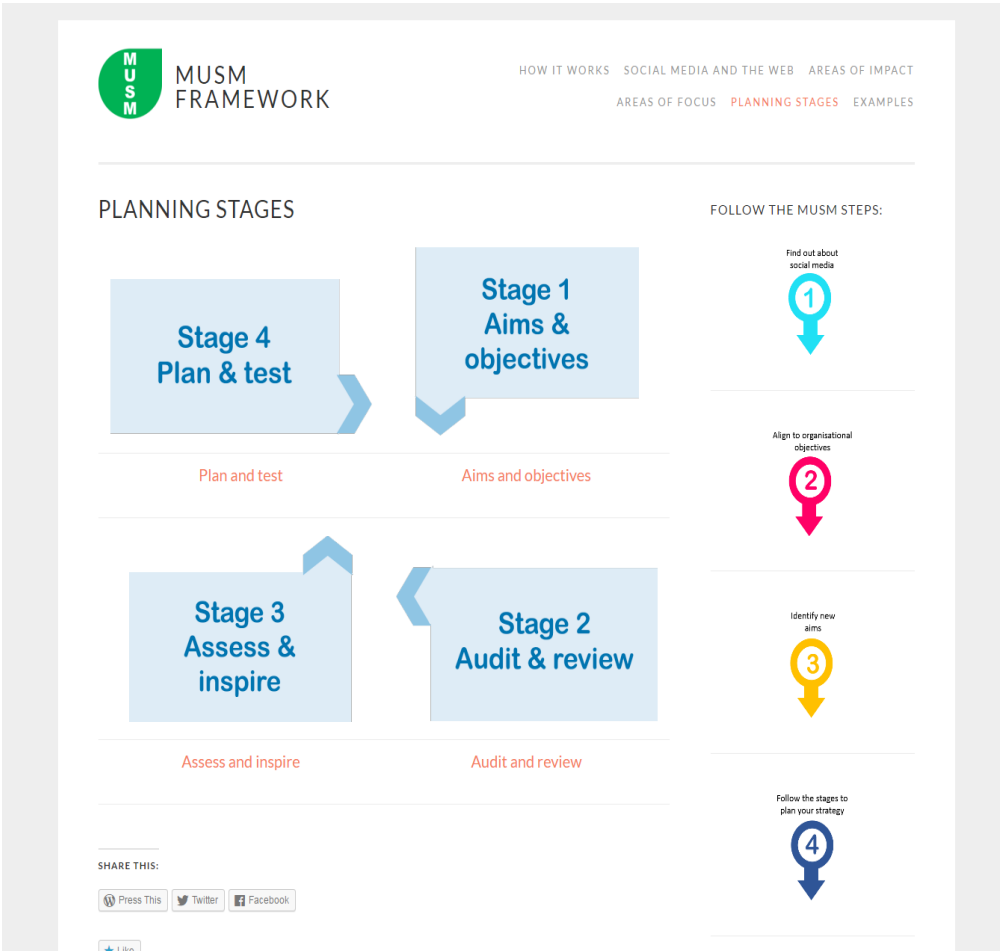


Figure 47 - Screenshot of localmuseums.org Planning Stages

Appendix M Review of conference proceedings: Social media use by museums

M.1 Museums and the Web, Archives & Museum Informatics, 1997-2014

Selected papers for each year reviewed:

Proctor, N., and R. Cherry (Eds.) (2014) *Museums and the Web: Selected Papers from MW2015, MWA2014 and MWF2014*, Archives & Museum Informatics: San Diego

Proctor, N., and R. Cherry (Eds.) (2014) *Museums and the Web: Selected Papers from MW2014 and MWA2013*, Archives & Museum Informatics: San Diego

Proctor, N., and R. Cherry (Eds.) (2013) *Museums and the Web 2013: Selected Papers and Proceedings*, Archives & Museum Informatics: San Diego

Proctor, N., and R. Cherry (Eds.) (2012) *Museums and the Web 2012: Selected Papers from an International Conference*, Archives & Museum Informatics: San Diego

Bearman, D., and J. Trant (Eds.) (2011) *Museums and the Web 2011: Selected Papers from an international conference*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2010) *Museums and the Web 2010: Selected Papers from an international conference*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2009) *Museums and the Web 2009: Selected Papers from an international conference*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2008) *Museums and the Web 2008: Selected Papers from an international conference*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2007) *Museums and the Web 2007: Selected Papers from an international conference*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2006) *Museums and the Web 2006: Selected Papers from an international conference*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2005) *Museums and the Web 2005: Selected Papers*, Archives & Museum Informatics: Toronto

Appendix M

Bearman, D., and J. Trant (Eds.) (2004) *Museums and the Web 2004: Selected Papers*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2003) *Museums and the Web 2003: Selected Papers*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2002) *Museums and the Web 2002: Selected Papers*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2001) *Museums and the Web 2001: Selected Papers*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (2000) *Museums and the Web 2000: Selected Papers*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (1999) *Museums and the Web 99: Selected Papers*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (1998) *Museums and the Web 1998: Conference Proceedings*, Archives & Museum Informatics: Toronto

Bearman, D., and J. Trant (Eds.) (1997) *Museums and the Web, 1997: Selected Papers*, Archives & Museum Informatics: Toronto

M.2 UK Museums on the Web – 2009 to 2013

Some Museums Computer Group (MCG) conferences are not represented online. In the instances of 2008, 2007, 2004, there is limited information in the form of blog posts. Whilst these were reviewed, for the sake of consistency, they are not included in this bibliography as they are not officially affiliated with the conference organisers.

Museums Computer Group (2014a) UKMW14 round-up: reports, tweets, slides and images, 0th November 2014, *Museums Computer Group*. Available at:
<http://museumscomputergroup.org.uk/2014/11/10/ukmw14-round-posts-tweets-slides-images/>
Accessed 1st December 2014 [Online]

Museums Computer Group (2014b) UKMW14: 'Museums Beyond the Web' Programme, 12th August 2014, *Museums Computer Group*. Available at:
<http://museumscomputergroup.org.uk/2014/08/12/ukmw14-programme/> Accessed 1st September 2014 [Online]

Museums Computer Group (2013a) UK Museums on the Web 2013: Session details, 24th October 2013, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2013/10/24/uk-museums-on-the-Web-2013-about-the-papers/> Accessed 1st September 2014 [Online]

Museums Computer Group (2013b) UK Museums on the Web 2013: 'Power to the people', 15th August 2013, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2013/08/15/uk-museums-on-the-Web-2013-power-to-the-people/> Accessed 1st September 2014 [Online]

Museums Computer Group (2012a) UK Museums on the Web: UKMW12 'Strategically Digital' Programme, 26th October 2012, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2012/10/26/programme-for-ukmw12/> Accessed 1st September 2014 [Online]

Museums Computer Group (2012b) UKMW12 round-up, 1st December 2012, *Museums Computer Group*. Available at: <http://museumscomputergroup.org.uk/2012/12/01/ukmw12-round-up/> Accessed 5th September 2014 [Online]

Museums Computer Group (2011a) UK Museums on the Web 2011: The innovative museum: creating a brighter future, 26th August 2011, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2011/08/26/uk-museums-on-the-Web-2011-2/> Accessed 5th September 2014 [Online]

Museums Computer Group (2011b) UKMW11 Blog Posts, 9th December 2011, *Museums Computer Group*. Available at: <http://museumscomputergroup.org.uk/2011/12/09/ukmw-blog-posts/>

Accessed 5th September 2014 [Online]

Museums Computer Group (2010a) UK Museums on the Web 2010, 9th December 2010, *Museums Computer Group*. Available at: <http://museumscomputergroup.org.uk/2010/12/09/uk-museums-on-the-Web-2010-2/> Accessed 5th September 2014 [Online]

Museums Computer Group (2010b) UKMW10 – Doing more with less: rising to the digital challenge in difficult times, 19th August 2010, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2010/08/18/uk-museums-on-the-Web-2010/> Accessed 20th September 2014 [Online]

Appendix M

Museums Computer Group (2009) UK Museums on the Web 2009: The everyday Web: situated, sensory, social, 25th November 2009, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2009/11/25/uk-museums-on-the-Web-2009-situated-sensory-social/> Accessed 20th September 2014 [Online]

Museums Computer Group (2008) UK Museums on the Web 2008: Integrate, federate, aggregate, 19th July 2008, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2008/06/19/uk-museums-on-the-Web-2008-integrate-federate-aggregate/> Accessed 20th September 2014 [Online]

Museums Computer Group (2007) UK Museums on the Web 2007: Web Adept, 22nd June 2007, *Museums Computer Group*. Available at: <http://museumscomputergroup.org.uk/2007/06/22/uk-museums-on-the-Web-2007-Web-adept/> Accessed 20th September 2014 [Online]

Museums Computer Group (2005) UK Museums on the Web 2005: The digital object, 21st April 2005, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2005/04/21/uk-museums-on-the-Web-2005-the-digital-object/> Accessed 2nd October 2014 [Online]

Museums Computer Group (2004) UK Museums on the Web 2004: Web enabled, 22nd April 2004, *Museums Computer Group*. Available at:

<http://museumscomputergroup.org.uk/2004/04/22/Web-enabled-museums-online-access-and-ability/> Accessed 2nd October 2014 [Online]

Museums Computer Group (2001) UK Museums and the Web, 2001, 15th November 2001, *Museums Computer Group*. Available at: <http://museumscomputergroup.org.uk/2001/11/15/uk-museums-Web-2001/> Accessed 2nd October 2014 [Online]

M.3 Museum Computer Network annual conference – 2003 to 2014

Between 2003 and 2009 there is limited reference to this conference.

Museum Computer Network (2014a) *Advancing digital transformation in the cultural sector: MCN 2014 – Dallas, Think Big, Start Small, Create*, Museum Computer Network: Dallas, TX. Available at: http://mcn.edu/wp-content/uploads/2014/11/MCN2014_ConfProgram.pdf Accessed 7th January 2015 [Online]

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Museum Computer Network (2013a) *41st Annual Museum Computer Network Conference, MCN 2013 – Montreal: Re:Making The Museum*, Museum Computer Network: Montreal. Available at: http://mcn.edu/wp-content/uploads/2014/09/MCN2013_Program_v17sr_rl_2013-11-06.pdf Accessed 7th January 2015 [Online]

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Appendix M

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January 2015 [Online]

Appendix N List of semi-structured interviews

The following individuals were interviewed in in-depth, semi-structured or free-form interviews.

All of the following interviews were audio recorded and then transcribed.

Hadley, P., 25th June 2014

Woods, A., 24th June 2014

Ellis, L., 11th June 2015

Ellis, L., 27th June 2015

Allen, D., 11th June 2015

Allen, D., 25th June 2015

Allen, D., 26th June 2015

Allen, D., 5th July 2015

Smith, L., 8th September 2015

The following individuals were interviewed in in-depth, semi-structured interviews. All of the following interviews were audio recorded but only relevant statements were transcribed.

Volunteer A, 2nd July 2015

Volunteer B, 2nd July 2015

Volunteer C, 18th June 2015

Volunteer D, 18th June 2015

Volunteer E, 25th June 2015

The following individuals were interviewed in in-depth, semi-structured interviews. The following interviews were not audio recorded instead, relevant statements were noted down for transcription post-interview.

Richter, J., 2nd April 2013

Davis, R., 2nd April 2013

Appendix N

Frankle, E., 2nd April 2013

Stevenson, A., 3rd May 2013

Wallace, R., 3rd May 2013

Jakobsen, N., 3rd May 2013

Appendix O Report: Understanding the context within which social media has developed

O.1 The invention of the Web

Since the invention of the Web in the 1990s, human behaviours have shaped the contents of the Internet and the types of interfaces with which people interact with the Web. The Web is today still closely tied to a discourse of social change, but awareness about how this can actually occur through the Web that now exists is less clear.

The substantial collection of research into the Web as a repository for the memory of the world is evidence of the recognition of the importance of the Web for the future of the archive (Robinson, 2012; Andermann & Arnold-de Simine, 2012). There is a sense that the Web is being seen to have a profound effect on the way in which humanity remembers, neatly summarized by Livingstone as the: “*mediation of everything*” (2009). There is also a sense that the Web is changing how we communicate (Brown & Hoskins, 2010: 88). This is a new ecosystem of memory where everything is intermediated and is seen to be evidence that the Web is having a significant impact on the production of knowledge at societal, local and individual levels (Carr, 2008).

Berners-Lee has commented that the Web has its basis in a desire to keep track of random associations from life (1995). Berners-Lee’s Web was based on a book that promised to draw together the “*...necessities of domestic life*” (Kemp Philp, 1894: 1). This idea of ordering everything through a technologically driven interface is reflected in work on the encyclopaedic museum (Cuno, 2011). This idea builds a myth that there is much benefit in bringing everything together under one roof, so that the world can be better understood. Except the Web does not do quite this. In the analogy of the universal museum, a building holds objects that are representative of cultures, events, individuals, or places. The Web do not bring together physical objects. Instead there is an additional degree of separation, as the Web brings together information about those things. The Web is more than the museum building with its collection, and it is more than the museum catalogue with its information about those collections. This kind of collecting online, through making links between information, is central to the major contribution that the Web makes to the model of the museum. For local museums however, these connections between objects must be augmented with sociality, as this is at the centre of local museums’ aims.

In the 1990s, the creation of content online using the Web looked as if it was going to become increasingly accessible, with user interfaces such as browsers improving rapidly and new tools and platforms for reading and sharing content coming online at a speedy pace. Websites such as GeoCities offered free Web hosting (Hansell, 1998). These kinds of resources led to a boom in the late 1990s in personal websites (MacGregor, 2012: 45), and this form of self-expression online reached its peak in 2000 (Bassett, 2007: 148). It seemed from the instance of the use of the Web, that the Web was going to be characterised by the projection of the self-online through playful negotiation. However, post-2000, social tools and platforms on the Web developed in a very different way to this initial chaotic enthusiasm for freedom of expression.

In the first few years of the Web, optimistic articles outlined a utopian future where the Web was actively realigning at a societal level by decentralising control (Negroponte, 1995b). A popular cartoon from the time shows a dog using a computer at a desk (Steiner, 1993). The caption reads: *“On the Internet, nobody knows you’re a dog”* (Steiner cited in Lessig, 2006: 35). The cartoon is still used to make a point about the freedom offered by the non-corporeality of the Web. However, the model of social media today means that it is increasingly difficult to be a dog online.

In the mid-1990s, there had been a rush on all types of Internet-based start-up companies, most of which used the domain .com in their URLs. This period of massive expansion online, during which there were high levels of investment and the American stock market rose dramatically is referred to as the dot-com era of the Internet. Between 1999 and 2001 the stock market bubble for the dot-com companies burst due to over-valuing of companies (Willoughby, 2000). Shares of dot-com companies plummeted (Konecny, 2013: 169).

Social media still makes use of the freeing rhetoric of the Web from the early 1990s, but it does not deliver on this promise. The strong link between the counterculture associations of early manifestations of the Internet with projects like the interest based forums of Whole Earth ‘Lectronic Link (WELL) and topically organised user communities. In 1985, WELL was created out of the Whole Earth Catalog (Pernick, 1995), which had been a printed magazine since 1968 which offered advice to people who wished to live independently, away from the majority (Kirk, 2007; Whole Earth Catalog, 2014). This fuelled the development of many of the social networking platforms and tools used today. These social projects are echoed in polemic surrounding today’s manifestations of social media, but contemporary social networking platforms with their emphasis on people rather than themes have lost some of the societal impact that these early forums enabled. In the early 1990s there was a belief that online communities were growing organically filling the gap that traditional communities no longer fulfil (Rheingold, 1993: 413-21),

following their disintegration in the modern and post-modern world. However, post dot-com bubble, the make-up of online communities changed dramatically to the more restricted technologically defined platforms and tools that we see today.

Early manifestations of the Web, with the first Internet relay chatrooms and Web forums had a focus on topic as the structural emphasis. Today, the majority of social networks are not organised around topic, but instead are made up of people who have similar cultural values (Ellison & boyd, 2013: 160). The topical model has been put aside in preference of the people as network model. Users do not want to feel that information is being filtered by highbrow themes, but instead they prefer the personalisation of the Web that is becoming more common. The Web has the potential to provide access to large amounts of information, but we would not want access to all of this information (Lesk, 1997). Many of us will attest from our daily use of social networking platform news feeds that this is indeed the case. Studies in the area of the Internet and society are beginning to argue that despite seeming to offer empowerment, social media are in fact reducing access to information through various factors. Work on the use of Twitter for the Canadian federal election of 2011 illustrates this. By interrogating tweets from all four major parties and evidencing preference for the collective element over personal expression (Gruzd & Roy, 2014). In this example, like communicates with like and there is very little communication away from the mainstream of any particular group's political leanings.

O.2 Web 2.0

The Internet continued to grow in popularity after the dot-com bubble burst and companies continued to be established post-millennium. However, the Web companies that emerged from the financial upheaval after 2005 had a new form. These new companies presented a more nuanced public role as socially aware organisations, with mission statements much closer to that of the Community Memory Project's counter-cultural ideology. But the nuanced role which echoed the earlier freedom of social websites such as GeoCities is not necessarily being enacted today in the form of social media that was eventually established.

The intention of the new version of the Web around 2005 was clear. The companies that had come out of the dot-com bubble all had common attributes (Song, 2010: 250), and these were described as Web 2.0 (O'Reilly, 2005). Web 2.0 is a meme for the parts of the Web that are driven by users rather than static website manifestations of the Web. Web 2.0 describes the social aspects of the Web and has a focus on inclusion. The idea of Web 2.0 was to develop a Web that was more open to sharing content and information and resources are structured in such a way

that users could add and edit content using interfaces aimed at non-programming specialists. Social media is a major element of Web 2.0. Despite the two terms being used interchangeably, social media represents only the social components of the Web 2.0 meme (Constantinides & Fountain, 2008).

The essential main components of Web 2.0 are present within many Web-based tools and platforms today, and the term is often used as a catch-all to refer to social media generally. Over time, in addition to the original components of Web 2.0 the Web has been augmented by further technical capabilities that improve the ability of tools and platforms to deliver on the Web 2.0 promise of collaboration and transparency. However, the progressive, counter-cultural outlook of Web 2.0, has been thwarted by the socio-cultural architecture of the Web; by the users themselves. Existing social hierarchies and consumer models mean that an open and transparent Web has not developed. For instance, companies reduce access to digital content by constructing pay-walls.

Social media has purported to go some way to reducing inequalities on the Web, and this is often equated to an orientation between social media and the Web 2.0 ideology. But there are substantial disparities within the social tools and platforms themselves that are used to access the Web.

The sociality of the Web, and the Web 2.0 meme are based in an ideology that was established in the 1970s in San Francisco. Projects that came out of the counterculture community of the Californian ideology (Barbrook & Cameron, 1996), such as the Community Memory Project (Felsenstein, 2013) and the Whole Earth Catalog (Kirk, 2001: 376). These projects were social networks manifested through technology and enabled by the technology to share knowledge and establish relationships to a degree that would not previously have been possible. It is this manifestation of social movement that social media uses today to underpin rhetoric around the contribution of tools and platforms to social change. However, the architecture of social media and the organisational structure of many of the larger more established social networking platforms and media sharing platforms means that it is hard for social movement to occur without support from the commercial ventures behind the tools themselves.

There are several ways that the Web is perceived to contribute to society. Chapter 5 of the thesis examines the affordances of the Web in further detail, reviewing literature that addresses the following potential:

- **Increase or decrease access to information about the world** (Gane, 2005: 475; Halavais, 2008: 3; Pariser, 2011; Simpson, 2012; Miniwatts, 2013; O'Hara, 2013; de Corrière & Taylor, 2014)
- **Build or block knowledge building**, through: individual awareness of consent (Andrejevic, 2012: 72; Falque-Pierrotin, 2014; Willis, 2014), facilitation of negative experiences through social media (Fuchs, *et al.*, 2013; McCaughey & Ayers, 2013; Hables Gray & Gordo, 2014; Veil, *et al.*, 2015), personalisation of Web content (Halavais, 2008; Bruns, 2012a; Masum & Tovey, 2012), which leads to the filter bubble (Pariser, 2011; Miles & Mangold, 2014), where we are (Goldman, 2008; Brin & Page, 2012; Jiang, 2014), and social behaviours (Diaz, 2008; Feuz, *et al.*, 2011; Rushton, 2013; Chamorro-Premuzic, 2014; Ipsos MediaCT, 2014b; Shultz, 2015).
- **Support or confound societal diversity** (Kaplan & Haenlein, 2010; Wikipedia, 2015a)
- **Perpetuate or break-down real world boundaries** (Lee & Liu, 2012; Nabi, 2013; Ofcom, 2013: 29; Office for National Statistics, 2013: 23; Tai, 2013; Ipsos MediaCT, 2014a: 2; UK Government, 2014e; Yalkin, *et al.*, 2014). The Web can contribute to community regeneration (Capita, 2012: 6; Housing Technology & Race Online, 2012: 4; Tech City UK, 2015: 5) and skills building (British Educational Suppliers Association, 2014; Quinlan, 2015: 52-53). The Web can compound digital exclusion (Flinn & Stevens, 2009; Dutton & Blank, 2011: 16; Loader & Mercea, 2011; Department for Work and Pensions, 2012: 29; Ipsos MediaCT, 2014a: 9; Ofcom, 2014: 38; Office for National Statistics, 2015a, 2015c; Sloan, *et al.*, 2015) and increase homophily of experience of others (Bruns & Burgess, 2012; Clune, 2013; Flaouna, *et al.*, 2013; Murthy, 2013: 35-37; Boyle, 2015; Hedman, 2015), whilst also acting as a countercultural signifier (Etzioni, 2004; Greif, 2010; Kennelly & Watt, 2012; Mazzocco, *et al.*, 2012; Henke, 2013: 118; August, 2014: 1162; Clemente, 2014: 5; Williams, 2015: 2), provide a platform for expression of the self and construction of individual and group identity (Beer, 2008; Wodak, *et al.*, 2009: 29-30; Pariser, 2011: 151; Papacharissi, 2012; Beer & Burrows, 2013: 55-7), and capital-enhancement for higher status users (Zillien & Hargittai, 2009: 274; van Dijck, 2013a: 69-70).

O.3 Social media and the ideology of the Web

The current use of social media by museums is linked closely with attitudes about the potential of social media. These are tied to the potential contributions to the Web identified above. Most specifically, the affordances of social media and its relationship with the ideology of the Web must be interrogated in order to develop a more nuanced description of social media for local

museums use. This contributes to understanding the potential impact of social media on the aims of local museums.

The very first instance of social media is generally traced to the Community Memory Project which took place in San Francisco between 1972 and 1974 (Levy, 1984). A teletype terminal was connected to a mainframe computer and installed a non-profit music shop. Users could find data on bulletins indexed according to user-provided keywords (*op cit.*). The terminal has been argued to be the first instance of a social networking system (Felsenstein, 2013). The project provides valuable insight into the ideology of the social networks that we use today. Community Memory evidenced that people wanted to carry out tasks on computers and was based in a belief that if part of a network, computers could strengthen community ties (Rosenzweig 1998: 2). The group behind Community Memory provided a way to reinforce countercultural connections (Felsenstein, 2013). This was tied to the Californian ideology (Barbrook & Cameron, 1996; Talbot, 2013: 25).

In Community Memory we can see conceptions of technology as social innovator that reappear throughout social media. These notions of technology changing society have resulted in the current condition of strong versus weak publics within the use of social media. The terminal was disguised within a naively styled cardboard casing and was in a non-profit community venue (Szpakowski, 1997), users of the terminal were self-confessed counter-culturalists (Resource One, 1974: 1). Community Memory intended to adapt human behaviour through the introduction of technology (Rossman, 1975: 8; Levy, 1984: 143), and this is echoed in today's attitudes about the potential of social media for social change with its alignment with counter-culturalist movements (Henke, 2013: 118). Social media today is still strongly associated with early adopters (Greif, 2010). Early adopters of technology such as social media are made up of the dominant class (Charters, 1992). This is seen in the emergence of the 1940s term *hipsters* to refer to people who, amongst other things, are ardent users of social media (Broyard, 1948; Kennelly & Watt, 2012; August, 2014: 1162; Williams, 2015).

In the narrative constructed around social media, the opposite has been promoted in several instances, as social media helps to support political protests and uprisings against oppressive regimes, and to fight prejudices experienced by minorities, as discussed in Chapter 3 of the accompanying thesis. However, the bias towards high social status remains in social media and it is driven by individualised behaviours (Castells, 2000: 383). The self-recognition of Community Memory users as counter-culturalists prevails today in the creators and early adopters of social media. This early-adopter mentality is a method of control of tools and platforms (van Dijck,

2013b: 70). In this model, super-users can affect the experience of many of information (Dean, 2010). Twitter for instance, is described by its co-founder as a utility that should “*fade into the background*” (McCarthy, 2009), much like the cardboard covered Community Memory terminal. Twitter is actually structured in a way that gives preference to particular users and content by selecting and organising content. The styling of Twitter as a utility conceals this bias. On Twitter, the minority control the majority. Preferential bias of content from higher ranking users is a common criticism of many social media tools. In order to better understand this bias, we must look back to the development of the ideology of the Web more generally as described above.

O.4 User interfaces: From the Internet, to the Web, to social media

The Web is a user interface with which to access the Internet. The Internet is made up of many interconnected computer systems, which are globally situated. The Internet connects computers, and the Web connects people by means of the Internet. This is an important distinction that has a significant impact on the way in which the Web is conceptualised by local museums. The user experience of the Web is dependent on many things, such as the location from which the Web is accessed or the device that is used. This means that any one individual’s experience of the Web will be different to another’s. This is due partly to the architecture of the Web, but also to the political, social and economic factors of particular communities which impacts on Web access (Morris & Waisbord, 2001; Stevenson, 2007; Deibert & Villeneuve, 2008; Yalkin, *et al.*, 2014; Roberts & Murdoch, 2013). Experts working to improve understanding of the impact of the Web on society voice concerns about the lack of understanding that the average user of the Web has regarding the bias in the structure of the Web (Ono & Zavodny, 2007; Brandtzæg, *et al.*, 2011; Radovanović, *et al.*, 2015).

Despite lack of engagement with the machinations behind user interfaces for the Internet, use of the Web globally is increasing on a daily basis. This thesis focuses on social media, as a particular Web-based interface and this report considers how it is increasingly impacting on daily life. Social media is often treated as being synonymous with the Web, but it is in fact one particular way in which people with can engage with the Web. Social media represents a significant opportunity for local museums as it has the potential to support community building; a key focus for local museums.

O.5 Tracing the development of the utopian view of the Web

In challenging current structures of social media, local museums could be stressing to users the essential character of the Web as a passive tool for re-appropriation and re-shaping. The Web is created by its users and has been described as being a co-constituted ecosystem (De Roure, 2014: 230), but in this ecosystem the technical skills needed in order to shape content are such that there is a disparity between those that can shape the Web and those that are mere spectators. Social media seems to offer a way to contribute to the shaping of the Web without the need for skills such as agent-based programming, as it provides tools for creating and sharing content on the Web. The impact of this is very small in the overall shaping of the Web. One issue is that content creation through social media sites, instead of via sites dedicated to a particular medium is increasing, and this limits content to the site within which it was created and this decreases the reach of the content. For example, a video created within the Facebook mobile application will have far less potential reach than a video uploaded to YouTube and then shared on Facebook, and research has evidenced that trends in online content creation can exacerbate digital inequalities (Brake, 2014).

In treating social media in the way that we do, as an activity removed from its technological constraints, we are affording social media with unrealistic social qualities. There is an argument that the Web has been fetishised (Fenton, N., 2012: 214), and that we need to rethink social media as being connective and organic networks that are driven by communication rather than by information. This fetishisation allows social media to reproduce dominant values (*ibid.*: 124), but in an opaque manner. Part of this fetishisation is the over-reliance on the algorithms on which much of social media is based, where the hyperlink is given central importance as the main way in which connections between content and therefore people can be maintained, but the manner in which the hyperlink is shared are ignored.

The Web is filtering information, but not in a transparent way. Hyperlinks are connective and so we find ourselves experiencing increased sociality and enhanced autonomy through our use of social media as a tool for sharing content. But there is a need to better understand the way in which sociality is supported through social media. Content is shared by users of social media as a way to consciously structure the Web, but it is a form of communication that has at its heart what N. Fenton calls "*creative promotion of self*" (2012: 126). The Web is not being shaped along collectivist idealism, in order to ensure that information can be accessed by all, but it is a reflection instead of our own personal need for social status. We need only look at the way that professional marketing gurus manage their Twitter feeds to see evidence of this. The content

being shared will therefore be biased toward supporting the social capital of particular individuals, and this may be to the detriment of others. Our Facebook feeds often include videos and images of comical behaviours of others, and it is likely that many of these were recorded without the permissions of the people involved, and research has highlighted the lack of liability in harassment through Internet memes and potential Tort Law reform in the USA (Poole, 2013).

Hyperlinks are structuring our experience of information and this simultaneous interconnectedness removes knowledge from socially structured classes (Dreyfus, 2001: 10), therefore complicating the structure of communities when manifested online (Gane, 2005: 475). The interfaces through which we access the Web, such as search engines are one of the key misnomers in relation to Web use, and pose a significant threat to digital equality online. Google's search engine is perceived as an ancient Greek Delphic oracle (Halavais, 2008: 3), acting as a source of knowledge (de Corrière & Taylor, 2014), and an epistemic tool (Simpson, 2012). The action of 'Googling it' is present in some surprising scenarios, for instance the Google Search Engine is used by medicine residents at the Point-of-Care to answer clinical questions (Duran-Nelson, *et al.*, 2013: 788). But Google filters information using opaque algorithms for personalisation (Pariser, 2011). Personal filtering is also possible, for instance parents filtering Web content from their children at home. Language is a substantial barrier to Web content (Miniwatts, 2013). Pay walls and subscription charges can affect the content that is accessed. Deliberate obfuscation can take the form of online users setting up TOR websites for file-to-file sharing. SEO can impact on the content that is findable online.

The enhanced autonomy gained through creating and sharing content through social media does not however necessarily equate to an increase in control within the social media being used, as social media tools and platforms are organised in such a way that there is very rarely a total loss of control over content, and this is manifest in the methods used by large social media platforms such as Yelp, a social networking platform for sharing local business reviews, which uses a variety of approaches to regulate content, minimising the sharing of inappropriate images or opinions through suspending user accounts and deleting content (DeNardis & Hackl, 2015).

The Web is a network of content that has been created by many people, but it is far from a fair representation of the potential whole. Inequalities within the technological structure mean that it is biased towards those with higher socio-economic status, despite being available theoretically to all. The museum as a network of people has manifested in various permutations throughout the history of new museum studies, and this must be considered in order to understand the way in which smaller local museums could inform social media practices by organisations that deal in the

delivery of public services. Museum studies today attempts to move away from the Enlightenment model of the museum as an institution which consciously maintained control over passive audiences, as described in the thesis.

The emphasis of the work of museums today is on participation and the involvement of audiences in all stages of collections development, care and interpretation. Indeed, the word audience has been replaced in many instances of museums studies with terms more appropriate for this participative era, such as the “*prosumer*” (Parry, 2010: 226). This is an old term (hailing from the 1980s) which has been given new life in the social media world, which combines user-generated content *producer* with a *consumer* of content. The resituating of the museum as something that is consumed is in opposition to Preziosi’s view, expressed in the 1990s, of museums as a social technology; as something “*indispensable*” and “*ubiquitous*” (Preziosi, 1996: 97). This idea of museums as a social norm and a site where modernity is sustained (*op cit.*) is echoed by Huyssen writing in 1995, who claims that all of society has a highly developed level of “*museal sensibility*” (1995: 15). But these statements assume that audiences of museums are able to engage with museums as neutral spaces and to make their own museums (Huyssen, 1995: 15). This thesis argues that this ideal of culturally constituted museums that are not representative of society and as places for the framing of cultural identity does not hold true in the world as it currently is. But Huyssen and Preziosi were writing in the very early years of the World Wide Web. The Web has provided a new framework within which museums can test their ability to provide a space within which individuals can engage with museums on their own terms. And within this framework, museums have repeatedly failed to achieve the model outlined by Huyssen and Preziosi. This is because the model of a museum is based on the idea of a public institution, which gains authority through its nature as a recognised authoritative voice. The structure of the Web as the social machine today is being increasingly challenged and battles of ownership of personal data (Sánchez Abril, *et al.*, 2012) and issues of social profiling and disclosure of third party data (Fuchs, *et al.*, 2012). This positive move to improve the direction of developments towards more socially impartial platforms may well lead to a true social machine, but currently we must approach the Web, particularly social media with caution, remaining vigilant to the inequalities that are enforced in the platforms we join and the biases that are enacted through the tools we use. Museums today, particularly local museums, are still struggling to provide neutral spaces, and the inclusion of the Web into the model of the museum compounds this difficulty as it is rife with its own social affordances and these are manifested within museums’ attempts to use the Web to support their work.

In 2014, the Web celebrates its twenty-fifth anniversary, and its impact on society has been immeasurable. For museums, it is apparent that one effect has been to inspire a reassessment of the relationship that people have with them as institutions. In the museums sector today, ideas of inclusiveness and relevance in museums are based on the idea that universal constructs are not appropriate for everyday experiences of heritage (Gorman, 2011: 150). This highlights the importance of allowing for the personalisation of encounters with history, and this is in line with more recent ideas inspired by activity seen online. If people do not want to consider universal constructs within their daily lives (*ibid.*: 151), this seems also to be a move away from the idea of the globally situated museum, and the more clearly observable significance of what museums have to offer, namely providing a space for the reflection of humanity and environment, is lessened. For the local museum, the increase in the importance of personal significance presents an exciting opportunity. It is clear that the smaller, more locally focussed museum is well suited to the personal agenda that the larger, Universalist national museums find difficult to achieve, and in turn can contribute in a real way to the shaping of the Web as it continues to develop.

O.6 Modes of access for social media impact on experience of the Web

Increasingly, we engage with the Internet through other means. Smartphone and tablet use is increasing rapidly in the UK. Mobile Web access passed 50% out of the UK population in 2012 (Ipsos MediaCT, 2014b: 24). Towards the end of 2014, 63% of adults owned smartphones, 35% of UK households owned a tablet, and mobile Internet access was thought to be at 59% of the total UK population (*ibid.*: 28-32). These technologies access the Web on the go, but also make use of applications to access the Internet or the Web. Applications (known as apps) bring an additional layer of filtering of content. Social media tools and platforms encourage use of apps. Through them, additional functionality is possible that makes use of further user tracking data to provide complex functions such as messaging. Ipsos MORI claims that in November 2014, modes of access to social networking were almost equal when comparing mobile devices to PCs/laptops, 33% of the sample interviewed used mobile devices to access social networks, whilst 35% used PCs or laptops (*ibid.*: 12). Figure 48 overleaf demonstrates the changes in habits of accessing the Web through apps compared to using Web browsers.

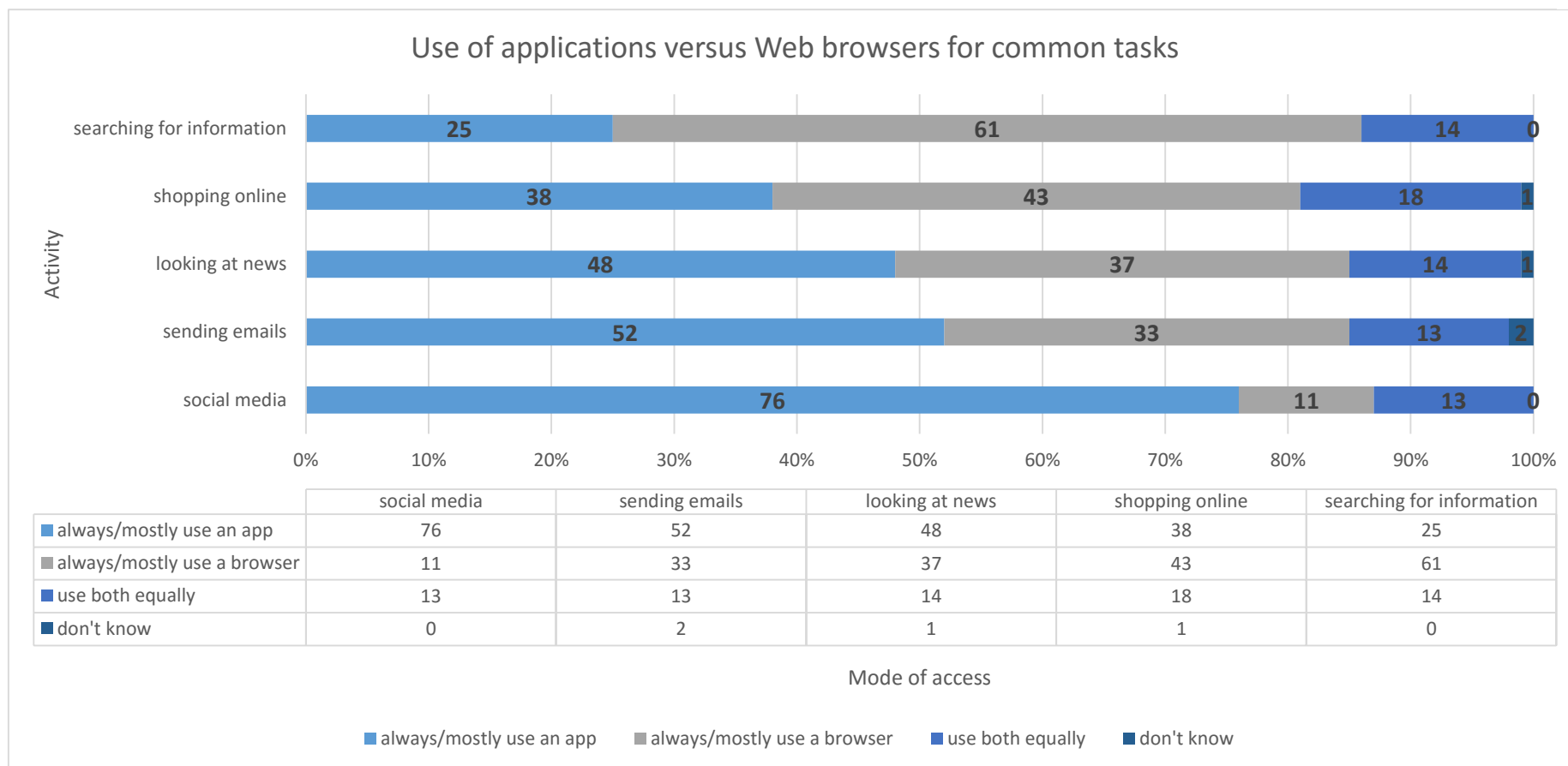


Figure 48 – Comparing the use of apps to Web browsers to carry out common tasks. Data based on OFCOM report on adults' media use and attitudes, figure 55 - Apps vs browsers (2015: 73).

This change in habits signifies the increased ubiquity of the Internet as it is accessed using devices that are mobile. The use of apps may not represent a significant move away from social media use on the Web however. Hyper Text Markup Language (HTML) is the mark-up language used to describe the Web, and therefore is used to create webpages. HTML did not have the functionality to refer to Web applications. In 2014, the World Wide Web Consortium launched a new version of HTML, called HTML5 (Hickson, *et al.*, 2014). HTML5 enables Web-based resources to offer much of the additional functionality that apps currently support. This is facilitated in HTML5 through the use of Application Programming Interfaces (APIs) which enable accessing of other services. It is very likely that in the near future, there will be little differentiation between mobile Web access and app experience (Pfeiffer, 2014: 278).

O.7 Social media perpetuates real world boundaries

A user's experience of the Web is affected by many things, and these are impacted by social, cultural, economic and political factors. These range from differences in access practically, to cultural differences in understanding of the potential of the Web. This impacts on experience of social media also. Practically, geography affects Web access due to barriers such as country or state regulations (Nabi, 2013; Yalkin, *et al.*, 2014). Content is censored and websites being blacklisted in many countries (Lee & Liu, 2012; Tai, 2013). Technological factors impact Web experience, for instance the type of devices used to access the Web may affect the kinds of content possible to be accessed. Mobile friendly stylesheets often strip out additional content from webpages, and mobile applications in particular filter information and re-present data through user interfaces. The quality of broadband available to households varies and even in the UK, which we consider to have good infrastructure for Internet access, there is a clear divide between rural and urban areas (Ofcom, 2013: 29). This greatly impacts the content that is available online. Streaming multimedia content is not possible via a dial-up line or via slower broadband line speeds. Access locations will affect the content that is accessed. For example, if the Web is used via an institutional network, such as a work environment, or a public place such as a library, then content is likely to be filtered or blocked if deemed inappropriate for the viewer.

Despite a large proportion of the UK population being currently excluded from digital life (Ipsos MediaCT, 2014a: 2; UK Government, 2014e), the Internet is being used to carry out tasks that are integral to everyday modern living (ONS, 2013: 23). One of the issues with digital exclusion in the UK is that although there are numerous studies into challenges such as digital literacy and digital access, these studies are rarely considered collectively, to gain a broader picture of the issues around the practical, but also emotional engagement with social media. The figures seem to paint

a positive picture regarding the embeddedness of social media and the Web more generally within society. The upward trajectory of the ubiquity of Web use in society would seem to point to the idea that everyone is already online (Tech City UK, 2015: 5). This in turn seems to signify that if local museums offering services online will be falling in with others. However, pervasive experience of the Web is not necessarily as well-established as the figures would initially suggest. In fact, there is a major challenge to ensure that communities and individuals are able to access even the most basic of online resources such as access to the Web at home (Capita, 2012: 6; Housing Technology & Race Online, 2012: 4). There has been some research that examines the disruptive potential for social media to lessen digital exclusion (Loader & Mercea, 2011). Most work focuses on the use of social media to encourage political participation. To date, very little research has focused on the potential of social media for experience of heritage. This could be a major conduit through which digital inclusion could be achieved. This is because heritage can encourage sustained engagement (Flinn & Stevens, 2009).

Social status and education are factors in Web experience (Dutton & Blank, 2011: 16). Stage of life is also a significant barrier to Internet access, for instance the majority of people in the UK under the basic digital literacy are from within the C2DE socio-economic grouping (Ipsos MediaCT, 2014a: 9). C2DE are skilled working class, working class, non-working people. These users are the very individuals that need to access these services that are moving online (Department for Work and Pensions, 2012: 29). Yet the UK Government's enthusiasm for the move to delivering essential services online is clearly not matching up to the reality of current experience of the Web. The UK Government's move to the provision of services digitally to those who are most likely to be excluded from the Internet is not unusual. This trend is mirrored elsewhere in other Government activities. For instance, the high hopes for the future of digital in the UK are evidenced in changes to the National Curriculum to incorporate more information technologies (Quinlan, 2015: 52-53). Yet over half of primary and secondary schools did not have adequate broadband (British Educational Suppliers Association, 2014).

In addition to practical barriers of access, different kinds of social media serve different audiences. Local museums need to be more aware of the limitations of certain types of platforms and tools for audience engagement and development. For example, whilst Facebook is used by nearly all adult Web users, there is a significant drop-off in the use of other social networking platforms and tools (Ofcom, 2014: 38). There are disparities therefore with social media access *and* with social media use.

In the museums sector, there is very little recognition of the partiality involved in the use of particular social media platforms and tools which themselves have built in bias. Social media is heralded as a way to 'level the playing field' for museums wishing to improve audience engagement, but the Web can be complicit in enabling existing hierarchies. For instance, social bookmarking tool Pinterest is being used increasingly by museums because it favours visual over textual content and is therefore an easy option for museum staff wishing to share content from online collections databases. The users of Pinterest experience content in different ways. A study of gendered behaviours in Pinterest reports that males are more assertive in content generation whereas females tend to share already existing content in a way that benefits originating commercial bodies (Ottoni, *et al.*, 2013). Although this study only presents a limited perspective on gender roles in Pinterest, it does highlight the need to acknowledge the ways in which the architecture of a social media tool or platform can influence behaviours and create biases in experiences of content. When engaging with particular social networking platforms, museums staff need to be aware of the subjectivity built into the platforms and the applications that are used to make them available within and outside of a museum's walls.

It is difficult to quantify the effort required to achieve effectiveness within a social media tool or platform. It is easier to approach this issue from the perspective of digital exclusion from the Web more generally. In the UK, the percentage of users in higher managerial and professional roles using Twitter is roughly in-line with the proportion of people who fall within this occupation class offline (Office for National Statistics, 2015d; Sloan, *et al.*, 2015). But in the case of the other occupational classes there is inconsistency. There is a disproportionately large percentage of lower managerial and professional users on Twitter, almost double the amount that there are offline (*op cit.*). There is an argument to be made here that successful engagement with Twitter requires a relatively high level of socio-economic class. This certainly seems to be played out in the experience of Twitter as expressed by the popular media in the UK. Twitter is gaining in popularity as a method to gauge societal reactions to events (Bruns & Burgess, 2012; Clune, 2013; Flaouna, *et al.*, 2013; Hedman, 2015), but it is a platform that fosters an environment that is not at all inclusive. Tweets that are considered inappropriate by well-connected users are picked up and highlighted within the platform (Boyle, 2015), usually through the use of satire. Groups communicating with one another on Twitter tend to be cohesive and in line with the idea of homophily, rather than the expected impact of the structure of Twitter (Murthy, 2013: 35-37), which would seem to encourage users to come across different content via hashtags.

As discussed above, participation in social media can often be a countercultural signifier (Mazzocco, *et al.*, 2012; Clemente, 2014: 5). Being part of social networking platforms and using social media tools is closely aligned to non-conformity and to the idea of being the first to discover or use a newly founded online community (Etzioni, 2004). The counterculture participant is freed up to express personal alignments more than an individual who does not see themselves as being part of this kind of social group. These counterculture groups do not manifest in the lower socio-economic groups, but are tied into groups of people who experience a relatively high level of security in their everyday lives. Social media is perpetuating the societal boundaries of class and promote elitism in their support of movements such as hipsters as early adopters (Greif, 2010; Kennelly & Watt, 2012; Henke, 2013: 118; August, 2014: 1162; Williams, 2015: 2).

In the first few years of the Web, content creators were seen as cyber-experts, people with skills beyond regular people's knowledge. Studies dating from the earlier days of the Web (Taylor, 1998; Bell & Kennedy, 2000), describe a utopian generation of network users, identifying with ideas of the cyberpunk world where science-fiction becomes a real part of everyday life (Sterling, 1986: xi). Popular films such as *The Matrix* (1999), *The Net* (1995) and *Hackers* (1995) illustrate ideas about the personality of the Web expert. Expression of fear of loss of control of the Web has been present throughout the history of the Internet. But in more recent popular imagination, the Web is seen to be made of regular people (Castells, 2013). The Web today is a distributed network. The network focuses on the delivery of user-centric content and on personalisation of experience (Kermarrec, 2013).

The rise of social media has led to refocusing on personalities behind tools over organisations. For instance, Mark Zuckerberg's own moralities are synonymous with the ethics of Facebook (Giles, 2012; Bauer, 2014). High profile Web users are no longer assumed to have advanced level of technical skill (Mansfield-Devine, 2011; Nikitina, 2012). Today, individuals involved in creating content on the Web are seen as non-experts, working together towards a common cause (Turgeman-Goldschmidt, 2011; Steinmetz, 2014). Web experts today share and disseminate information online through the Web using technical skills that are realistically achieved. The power users of social networking platforms (user accounts with high numbers of followers and influence) are not necessarily owned by computer geeks with advanced computational skills. Instead they are individuals who are adept at the social, rather than technical, aspects of online persona management. In earlier films the Web was merely a tool that was used by highly skilled hackers. Films from the past ten years, such as *The Social Network* (2010), *Middle Men* (2009), *We*

Live in Public (2009) and *Catfish* (2010), illustrate how the public gaze today is much more on a Web as an entity made up of actions of people.

This Web as something that is enabled and has its own agency means that it becomes something that can affect the world both positively and negatively. The skills valued in the popular imagination of the Web today are not those of coding and programming, but instead are based in the power of the ideas that result in developments on the Web. Understanding social structures as they manifest on the Web has become an essential skill. The popularity of books today, such as *The Shallows: How The Internet Is Changing the Way We Think, Read and Remember* (Carr, 2011), *You Are Not A Gadget: A Manifesto* (Lanier, 2011), *Digital Disconnect: How Capitalism is Turning the Internet Against Democracy* (McChesney, 2013), and *The Net Delusion: How Not To Liberate the World* (Morozov, 2012), illustrates the hyperbole of fears and hopes of the Web in our lives. All of these books are about the power of the network. The network is made up of machines that are connected by the actions of people and through the Web social action occurs. These contemporary narratives of the Web describe something active rather than passive that drives societal change. These ideas are tied to the perception of innovation occurring through technology.

Appendix P Looking for best practice – 18 case studies

The following 18 case studies have been analysed as part of the identification process for the three major case studies in Chapter 6. The descriptions below are intended as an overview of the potential for the Web. Through researching existing resources, this appendix support the final analysis in Chapter 6, and can be found in a more interactive format in the project website (www.localmuseums.org). Wherever possible, key actors were contacted.

The case studies are included in the appendices as a way to acknowledge the influence that they may have had on the findings of this thesis. Some of the conclusions from the analysis of these case studies has informed the direction of the design of the project proposals for HCT. As part of the transparent, reflexive form of this research, I have included these case studies here as a way to openly recognise the inspirations for some of the ideas in Appendix Q.

P.1 Case Study 1 - Supporting topically based communities

P.1.1 Britain from Above

The Britain From Above project aimed to conserve and shared the earliest 100,000 historical aerial photographs from the company Aerofilm through a website (2013). The project was a partnership between English Heritage and Royal Commission on the Ancient and Historic Monuments of Scotland and Royal Commission on the Ancient and Historic Monuments of Wales and was funded by the Heritage Lottery Fund. Engagement results of the project so far are impressive, close to 40,000 users contributed 230,000 actions to the website (Brauer, 2014). The Britain From Above project is rare as there is some evidence online of the curatorial skills involved in the project (Creative and Cultural Skills, 2014). The main website has a forum group dedicated to heritage careers advice (Brown, 2014), but uptake has been very limited.

The project aimed to geo-locate digitised images through crowdsourcing, and at its close in 2014 website users had successfully identified the location of over 70% of photographs (English Heritage, 2015: 7). The Britain From Above project has resulted in sixteen community projects (Brauer, 2014), and these real world instances of engaging with groups (Clari & Graham, 2012; Britain from Above, 2014; Llanelli Star, 2014) illustrate the potential of facilitating topical based communities. Britain From Above is organised topically and is not dependent on specific social media platforms although some of the functionality of the website mimics social networking platform activities.

The project was well-funded and could not be replicated by a small local museum without cultural commissioning and considerable financial support. However, there is much to be taken from the project's topical focus which is multi-layered. Users of Britain From Above may be interested in geographical locations, social history, photography, flight, landscape development, and so on. The website has not resulted in significant community-building, although there is some evidence of interactions via commenting about suspected locations of photographs (Brauer, 2014), there does not seem to have been sustainable community development resulting from activities online. However on an individual basis, the project has contributed to long-term learning (Architecture + Design Scotland, 2014) although from real world interactions rather than online connections.

P.1.2 Summary

Britain from Above provides an example of a project that is based on collections development needs. The communities that have been created through the website forums are interest-based. This project has encouraged some digital skills development, as well as crowdsourcing augmentation of records of objects.

P.2 Case Study 2 - Embedding playfulness through enabling creativity

P.2.1 Rijksmuseum Rijksstudio

Open licensing can encourage creative use of collections, the Rijksmuseum in Amsterdam launched Rijksstudio in 2013 as a platform for sharing open content from collections at the Rijksmuseum and as a way to enable individuals to engage creatively with objects in the collections. Rijksstudio (2013) encourages people to reuse content in a creative way (Sanderhoff, 2013) and those outputs can generate income for individuals or companies. The Rijksstudio has focused on individuals and also on small creative industries companies as potential beneficiaries (Rijksmuseum, 2014), and it recognises that digital content does not represent an income generating activity for the museum itself (Sanderhoff, 2013). The Rijksstudio has evidenced however the potential of opening up content for use of collections to inspire product development by creative companies (Calcagno & Cavriani, 2014).

Digital content made available in this way can also encourage the building of cultural capital for individuals. It can do this by providing a way for people to be inspired by objects to create new objects. The Rijksmuseum recognises the importance of playfulness for socialisation and has been developing several digital tools (Match Maker, 2013) focusing on gamification of collection

experiences (Van Passel & Rigole, 2014), as the co-experience of something is an important part of play (Walker & Fróes, 2011).

Through use of the Rijksstudio collections, some individuals have created objects based on artworks and the Rijksmuseum has enabled them to sell these objects on Etsy (2013), a social website for selling craft-based objects. The Rijksmuseum have supported product development with competitions and through sharing content created by individuals and this has empowered users to overcome the valorisation of artworks. Etsy places an emphasis on the handmade (Lukman, 2013) and this is creating an expectation of a narrative in association with an object (Soini-Salomaa & Seitamaa-Hakkarainen, 2012). These commerce-based social media sites are driving the need for access to visually inspiring content and are creating narratives of objects as well as overcoming authority of objects through repurposing aspects of them.

For local museums, this encouragement of creative and playful reuse of content can reduce the valorisation of objects. This can occur through the sharing of content through social media on a much smaller scale. It is important to ensure that digital content is appropriately licensed to enable reuse for commercial purposes.

P.2.2 Summary

The Rijksstudio encourages reuse of digital content that has been released under open licenses. The processes that have been put in place to facilitate this reuse serve as an example of the ways that arts practitioners could be supported to engage with digital content from collections, whilst also presenting challenges around how to support the diverse needs of these kinds of content users. The project can also measure the economic impact of the open agenda activities due to the commercialisation of some of the products that have been produced, through a partnership with Etsy (2013), the online platform for stores selling handmade products.

P.3 Case Study 3 - Using decentralised approaches to encourage participation

P.3.1 Los Angeles County Museum of Art #LACMA

P.3.2 Walker Art Gallery #onlyinmerseyside

Museums have also attempted to engage with social media using humour to gain followers. For instance the National Museums Liverpool recently held a competition via Instagram (2014)

encouraging members of the public to submit images to the social image sharing platform using the hashtag #onlyinmerseyside (Walker Art Gallery, 2015). The call for submissions is light-hearted and images received under the theme are often comical in nature, but also generally sensitive to the subject-matter. The competition acts as a trigger to encourage people to engage with a museum that they may have considered as not relevant to them individually. Use of social media fulfils the need to have a presence in spaces used by many different kinds of people, traditionally achieved by local museums through articles in popular local newspapers (Fleming, 2005: 55).

In many instances, the content being shared through social media by museums that are known to be at the forefront of attempts to engage with audiences through this medium is created as a direct response to an event occurring away from the institution, and the content often takes the form of socio-culturally specific commentaries on those events. Last year, the Los Angeles County Museum of Art (LACMA) were purported to be the first museum on Snapchat (2013) (Vartanian, 2014). As a consequence, the museum was included by the company in their promotional video for the new geofilters feature (Snapchat, 2014). The usage so far is based on the use of humorous captions over images of the artefacts in the museum. Figure 49 overleaf provides some examples of the LACMA account.

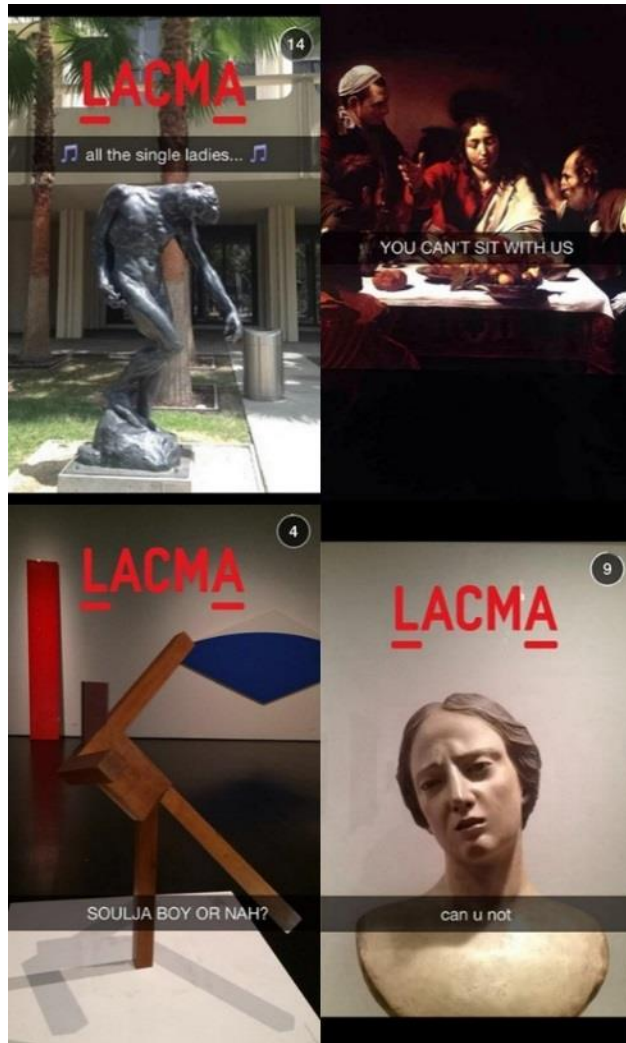


Figure 49 - LACMA on Snapchat (2014)

In the production of narratives of the self-online, there is an emphasis in the use of humour as a way to communicate more serious issues (Holton, *et al.*, 2011; Sienkiewicz, 2012; Mejova, *et al.*, 2013), as well as a way to communicate personal status. For instance in people's adoption of 'fail' as opposed to 'failure' in social media updates in order to engage with an existing play-frame (Zappavigna, 2012: 153). This has become a trend in social media use by organisations as a strategy for marketing communication (Lee & Ma, 2012; Lomas, 2012; Griffiths & McLean, 2014; Stilling Blichfeldt & Smed, 2015). But this use of everyday low-key humour to express personal identity (Phillips, L.M., 2013) is under-studied. Organisations are adopting humour for expression of identity on an institutional level (Milner, 2013), through the use of memes to communicate serious information to audiences (Fox, *et al.*, 2007; Hermida, 2010).

This approach can provide local museums with a way to communicate with people in a way that is familiar on an individual level. By doing this, local museums can overcome barriers to engagement that are based in issues of authoritative voice.

P.3.3 Summary

The Los Angeles County Museum of Art (LACMA) created a user account with a mobile phone app, Snapchat (Vartanian, 2014). Snapchat tends to have a younger user base than other popular social networking platforms and tools. The account is experimental and uses the functionality of the app to share playful interpretations of some of the artefacts in the collection. The innovation in use has led to media coverage and promotion of the account by the app itself. LACMA have evidenced the potential of participating in a small, iteratively building manner with newer social media tools and platforms for engaging with new and unanticipated audiences.

The Walker Art Gallery encouraged a nostalgic and comedic reflection on everyday life in Merseyside. Using social media functions, particularly hashtags, the project has crowdsourced community interpretations of regional heritage and identity, providing a safe space to engage with more problematic topics such as poverty through sharing content. This has also built the collections through user submissions.

P.4 Case Study 4 - Partnership working and collections mediation through APIs

P.4.1 Royal Albert Memorial Museum and Art Gallery

P.4.2 Exploring Surrey's Past

There are three similar projects from which local museums can take lessons for partnership working: the Royal Albert Memorial Museum and Art Gallery in Exeter (RAMM) website, the Exploring Surrey's Past website which provides access to local history and archaeology data from local history centres, the local authorities and local museums, and the Black Country History website which is a partnership of eight museums services. All of these projects have Application Program Interfaces (API) for the data. An API is a set of tools and protocols that can be used to programme a graphical user interface. They provide a way to access data from a database. RAMM (2013), Exploring Surrey's Past (2013), and Black Country History (2013) all provide an API so that users can interrogate their datasets and create new views onto that data. The APIs for Exploring Surrey's Past and Black Country History were developed by heritage company Orangeleaf, and currently requests for access to the API must be sent firstly to this organisation. This model of commissioning digital work out to external parties is common for local museums, but adds an additional layer of complexity in instances such as this. Whilst APIs sound very complicated, increasingly there are online applications that will manipulate APIs for you, and create

compilations of the most pertinent parts of apps (referred to as mashups) by bringing together various functionalities and information.

For an increasing number of museums, open data seems to be a way to fulfil the agenda for opening up collections. But merely making data available under an open license does not necessarily result in increased access to collections. For example, another group of regional museums, the Royal Pavilion and Museums, Brighton and Hove do not provide an API for data. Instead this organisation has found a workaround to the quick sharing of data that fits with the governance and administrative processes. Datasets have been licensed appropriately and can be downloaded from the museums service's website as zipped files (2013). But these datasets exist as a version uploaded in 2012 and as such do not include additional data added beyond this date. It does provide a view onto a catalogue but the format may limit reuse potential. Collections are changing continuously, and therefore require a live entry point, like an API, or some form of mediation. Mediation could be fulfilled through the use of social media to carry out activities like contextualising digital objects within newly acquired knowledge or promoting particular collections themes.

P.4.3 Summary

The Royal Albert Memorial Museum and Art Gallery (RAMM) provides a connection to the data from the collections through an API. This allows Web users to include information from the collections database in their own Web resources by using a graphical user interface to interact with the data. The API is easy to use, and access is available through sending a request to the museum via an online contact form. The API provides users with a way to reuse the metadata from the collections and therefore potentially present artefacts in new contexts. APIs can look quite daunting however, and there are no examples of use yet to illustrate the potential of the resource.

Exploring Surrey's Past has an API into the collections on the website. The API has been used to develop themed websites that support short-term and long-term focuses of regional heritage organisations (The First World War East Sussex, 2014). This approach presents an option for improving the use of digital legacy assets as the API enables easy reuse of data in new contexts by the organisation whilst maintaining one single entry point to the data.

P.5 Case Study 5 - Reuse of data through centralised mechanisms

P.5.1 Europeana

One way for local museums to combat the negative impact on the expression of heritage online through filtering is to engage with metadata indexing sites which are attempting to improve access to online collections by providing a trusted location for access to content. Local museums can inform the development of Web access for other organisations through the use of social media, but they can also work to provide access to information about their collections online through making use of existing indexes. The use of metadata by content sharing websites is improving rapidly, and websites that have resources to allow for indexing of previously difficult to find records are surpassing museums' ability to provide a reliable source of information online (Jett, *et al.*, 2012; Stvilla, *et al.*, 2012; Huang & Jørgensen, 2013). As evidenced in Chapter 5 of the thesis, information is not always easier to find because it is on the Web.

Europeana (2013) is a European Commission funded project that aggregates content from museums, libraries and archives through a centralised platform and aims to shift emphasis from websites with online content to applications through which content is accessed (Verwayen, 2010: 8). In doing this, Europeana is recognising the importance of making content available on the Web in a way that is not organisation dependent. Europeana aims to improve the discoverability of museums' collections data (Verwayen, *et al.*, 2011: 14) through the provision of metadata-based search platform. However, despite substantial resources, even Europeana struggles to meet user expectations for information recovery (Dobrevia & Chowdhury, 2010).

One benefit of making use of metadata services such as Europeana is that they can enrich data (Verwayen, *et al.*, 2011: 14). This can feed back into museums' own collections information. Europeana does not encourage social interactions within its own online resources but submitting metadata about collections to Europeana can work as a review process for local museums. There is a certain amount of reworking of data that must occur in order for most museums to submit data to Europeana (Purday, 2009). In this reworking, additional potential uses for collections data may be realised, as well as the identification of new outlets for creating connections back to objects cared for by local museums. Europeana works with Wikipedia (2014) and Google (2014) to improve access to collections (Nicholas & Clark, 2014). Europeana therefore provides a digital infrastructure that local museums could make use of as it provides opportunities that it is unlikely that a smaller, lesser resourced organisation would be able to facilitate. However, the partnership

process for Europeana is formal and this could prevent small-scale experimentation which is the most likely way to engage initially with an under-resourced local museum.

P.5.2 Summary

Europeana provides large scale sharing of collections content through metadata indexing. This is the basic record of an object, rather than the whole digital record. An index such as Europeana builds a central location for the presentation of artefacts, within the infrastructure of Europeana, alongside other collections. The potential for presentation of content through Europeana is varied, and could lead to increased reach of collections in new contexts. However, the organisation requires formal partnerships which may be problematic to secure for local museums. There is also an emphasis on larger datasets.

P.6 Case Study 6 - Creating communities for direct communication

P.6.1 Teylers Museum and Ning

P.6.2 Brooklyn Museum and Meetup

Larger museums at the forefront of technology adoption, such as the Brooklyn Museum, have been promoting the importance of conceptualising communication with users online through community (Bautista, 2014: 173). Focusing on the concept of community serves as a reminder for local museums that users are people. This is easy to forget with the current emphasis on use of quantitative data analysis tools such as Google Analytics (2013) and Hootsuite (2013; Plaza, 2011; Fletcher & Lee, 2012; Sabharwal, 2012) to measure engagement. The approach for many museums today is still one of categorisation of audiences (Koontz & Mon, 2014). This occurs in order to identify appropriate interventions delivered through social media. There is a danger in attempting to measure social media impact through these reductive methods, but this prevents a view of the longer-term impact potential of social media use by local museums. One key issue in the use of analytics to report social media impact has been the failure of organisations to record benchmarks against which to measure change, as evidenced in the first phase Culture24's action research programme Let's Get Real (Finnis, *et al.*, 2011: 21), to which this PhD research has contributed (*ibid.*: 37).

There are several approaches to community development online and in the Teylers Museum approach we see a way to foster community development through an organisationally supported social network (2013) that is created within Ning (2013). Ning is a tool for social network hosting,

it has not been particularly popular in the museums sector, but does offer potential for community building online. The content shared in the Ning pages is less polished and this gives the impression of a community-focused space. However, this is a conceit that has manifested because the Ning community for the Teylers Museum is participative, as it provides a space that is away from the official website for the institution, but is institutionally reinforced. In doing this, the Teylers Museum Ning pages are providing a space within which the museum has maintained authoritative control. This could however be a useful community for people who are involved in the work of the museum. Volunteers and paid staff could communicate best practice stories through such an environment, improving awareness within the institution of the opportunities of the Web.

Social media provides a potential tool with which to experiment with new forms of audience development (Bautista, 2014: 147), and this can be seen in the Brooklyn Museum's implementation of a new membership scheme, 1stFans (2013) which investigated the potential of a Web-based membership model for the museum. Use of popular social networking platforms and social media tools to communicate with subscribing members was quickly abandoned. The project moved away from Facebook (2013) and Twitter (2013) and instead used Meetup (2013), the event planning social network, to communicate with members of the scheme (Bernstein, 2010). Despite the higher staffing and general resource levels of the Brooklyn Museum in comparison to a local museum, 1stFans could not deliver on the users' expectations of engagement (*op cit.*). Reflecting on the experience in a blog post, Bernstein commented that changing focus to a social platform that had less demands on time for staff improved audience communication (*op cit.*). This is possibly because Meetup is organised around events rather than focusing on individuals, and so works on an interest model rather than audience model. This is a theme that appears across the majority of the case studies in this appendix.

P.6.3 Summary

The use of an existing social networking platform to communicate behind-the-scenes activities to users of the site presents a different space to carry out actions online. This kind of online space could potentially offer a way to share best practice and tell stories about experiences with technology within the institution. This may offer a way to involve volunteers more actively in decision making processes around technology use in activities.

The Brooklyn Museum's 1stFans initiative encouraged people who may not necessarily take part in a Friends of the Museum group, to join a subscription service to become part of a digital network

of supporters of the museum. After using popular social networks including Facebook and Twitter from the inception of the scheme, the team moved to Meetup, an online community events sharing network. The museum identified the most appropriate existing tool was one to organise and facilitate activities online and in the real world through Meetup, rather than lose this most important activity of 1stFans amongst the 'noise' of a platform like Facebook. Within Meetup, the motivations for actions are clear, the end point will be a meeting of sorts. Identification of the correct tool for the intended outcomes can lead to improved impact of activities within social media.

P.7 Case Study 7 - Media Commons and reuse of digital content

P.7.1 Wiki Loves Monuments

The reuse of existing tools and platforms provides a way forward for local museums to engage with people socially online whilst reducing the resources needed to facilitate this. One particular opportunity is to engage with global and national events that take place online. The Wiki Loves Monuments (2013) project illustrates that there is much potential in engaging with already existing online communities to identify potential opportunities for collaboration and to provide content to improve existing spaces. The volunteer-run annual competition is supported by the Wikimedia Foundation, the organisation behind Wikipedia the online user-edited encyclopedia. Through Wiki Loves Monuments, Wikimedia collects submissions of user created photographs of monuments submitted to Wikimedia Commons for reuse online (Wiki Loves Monuments, 2014). Wikimedia Commons (2013) is one of many media commons on the Web. There are other social platforms that have media commons that local museums could engage with. Flickr (2013), the photo-sharing platform is another potential example. These media commons collections offer an infrastructure that includes licensing and metadata functionality that would be resource-heavy to replicate on an institutional level for local museums.

Over four years, the Wiki Loves Monuments competition has resulted in one million photographs of historic sites and monuments being added to Wikimedia Commons (Nevell, 2014). There are unanticipated user-led innovations that have occurred through this project that illustrate the potential contribution that these kinds of Web-based events can offer to local museums. For example, Parcero-Oubiña found that as there was no location information available for many of the monuments photographed for the Spanish branch of the competition, and that through uploading images to Wikimedia Commons and filling in metadata fields, competitors were including their own handheld GPS derived data associated with their images (2012: 698). This

means that users were creating an additional dataset as a side-effect of the competition. It is this kind of unanticipated benefit that can be derived from socially-driven Web-based activities like commons.

Local museums can engage with media commons collections like Wikimedia Commons as a way to extend their reach online. However, projects that have used commons such as Europeana have found evidencing impact of adding digital images to media commons problematic (CIBER Research, 2013: 42-48). Many users of Europeana visit the site for work purposes (IRN Research, 2011: 11). This points to the website being used by the creative industries, but there is currently little evidence for this kind of impact. Some evidence exists that for local museums making digital content from collections available online could present opportunities to inspire product development (Mete, 2006; Chhabra, 2010: 167-170), or to augment the presentation of heritage (McClellan, 2008: 150; Caulfield, 2011).

For museums managed by local authorities, the available literature seems to indicate that there is a need to improve advocacy around access to social media in the workplace (Tuck & Dickinson, 2015; Tuck & Mirmolavi, 2015). However, local museums need also to be aware of potential restrictions in schools and other government run organisations, as this impacts on access to their own content by these audiences. For instance, there has been much frustration in primary and secondary schools in England and Wales as many social networks are blocked by county council information technology departments, despite the increasing use of these platforms and tools in teaching (Schroeder, *et al.*, 2010). This filtering in schools can also mean that children who do not have access to the Web at home are experiencing different content if they are only using the highly filtered Web that is available when at school. Local museums would benefit from communication from the outset with local government representatives to established banned platforms before embarking on projects or campaigns. Digital content could be developed in a way that it is not platform dependent and can be reused in new scenarios based on availability of particular options.

For local museums, any design for the creation of online content should aim to be accessible on a school computer or indeed a public library computer, as these are highly regulated instances of the Web (Spacey, *et al.*, 2015) but for much of the UK population are the major mode through which the Internet is accessed (Vickery, 2014). In adopting certain social media tools and platforms, local museums can set a precedence for appropriate Web resource identification. The nature of local museums as places for education that are tied closely into community needs as well as being aligned to local government priorities, means that local museums can drive the

development of approaches to Web access for other organisations under the care of local authorities, such as schools, care homes, and libraries.

P.7.2 Summary

Wikimedia Commons based event, Wiki Loves Monuments, aims to collect open licensed digital images of heritage monuments within the commons collections. The project is crowdsourcing imagery of monuments globally. Images that are added to the commons may be used within other online resources, such as Wikipedia. This event leverages an interest in photography to improve the record of a particular aspect of the heritage environment. Many of the images have location data associated with them, this means that potentially, additional datasets are being created that may contribute in the future to safeguarding heritage, or in future research. Local museums could support these kinds of events, encouraging interest in the local environment through appealing to other interests, in this case photography. This could also contribute to building communities of interest for future activities, such as walking, photography, geocaching, or orienteering.

P.8 Case Study 8 - Technological innovation through partnership

P.8.1 Royal Albert Memorial Museum and Art Gallery Moor Stories

In the museums sector, there are several instances where the social tools available on the Web have been used to promote social activities happening in the analogue world. There are fewer examples of projects that have used lessons learned from social media use to create social experiences that are in the real world as well as being online. Real world projects and activities that are augmented by the social Web seem to be less common. Examples of these kinds of actions would not necessarily use existing social networking platforms or social media sharing platforms, but would reflect the familiar actions of these tools so that users could engage with heritage online in a new way. Moor Stories: Reimagining the Dartmoor Landscape Project (2013) is one such instance. Moor Stories is a partnership project, between Royal Albert Memorial Museum and Art Gallery (RAMM), the University of Exeter and 1010 Media, a website design company in Exeter.

Moor Stories is also an example of the potential benefits of the possibilities of combining Research Council funded groups with the cultural heritage sector. The project was funded by one of the newly created UK Knowledge Exchange Creative Economy Hubs (Channer, *et al.*, 2013), supported by the Research Council UK, which foster the establishment of creative economy

groups in universities and the development of relationships between those hubs and companies specialising in creative economy solutions.

With Moor Stories, the RAMM acted as an active partner in the development of a website as well as the analogue-world events that were carried out at organisations including as schools and local history groups. This is an integral factor in ensuring that partnership projects have positive impacts on the communities for which they have been designed. Innovation projects such as Moor Stories have been supported by academic institutions, in this instance this even included a PhD student, and by commercial organisations. This relationship between small to medium enterprises, research organisations, and museums can provide a substantial injection of digital skill as well as resource into a local museum (Martin, 2013). But this sort of innovation project is generally a rarity and other ways to innovate must be identified.

In the case of social media, there is the possibility of trialling small innovations with few resources and building these up to be larger interventions in the activities of a museum. The Moor Stories project intended to experiment with ways to present Victorian collections from Dartmoor using technology. An app and website were developed in consultation with a variety of stakeholders, in order to share oral histories and connect objects with this knowledge. The project included a series of workshops with local schools to write stories inspired by archaeological artefacts. These were then added to the Moor Stories website. Feedback from focus groups highlighted the need to differentiate between user submitted creative stories and user submitted factual stories (Giannachi, 2013a). In her review of the project, Giannachi highlights the place of performativity in the users' experience of the museum collections (2013b), and this is an exciting potential avenue to follow, as in the case of social media, performativity is a dwindling possibility, but has been identified in this thesis as being a key factor in our use of social media to affirm identity. Local museums could support performativity through making digital content available that can be reused, and this idea of the central importance of action is discussed throughout the thesis as it is a key approach to encouraging sociality.

P.8.2 Summary

Moor Stories is a project that is a partnership between a higher education institution, a museum and a commercial organisation. Together, the resource capability has led to the development of a programme of events that have resulted in new narratives about local heritage being shared on a central website. The website focused on reconnecting artefacts with locations, and the social components on the site encourage individual responses to sites, like churches and ancient

monuments. There is an educational aspect to the project which encourages younger people to discover the local landscape, and local history groups have submitted content through outreach events. The project serves as an example of ways to reconnect objects held within collections with regional landscape, but without asserting authoritative interpretations of history and archaeology.

P.9 Case Study 9 - Topical Communities

P.9.1 Open Plaques

One instance where the topic model has proved to be successful over a focus on pre-defined audience is the Open Plaques project (2013) which self-identifies as “*the museum of the street*” (2015). Open Plaques has adopted such an approach from the outset. Open Plaques began at a Yahoo Hack Day in 2009, and has been developed by a team of contributors. Open Plaques initially began with basic datasets that had not previously been combined, a Google Map of blue plaque locations in London and a Flickr group of under 1,000 partially geo-tagged photographs of blue plaques (Roberto, 2009).

There are several examples of use of social media from outside of the museums sector that demonstrate how social media has value beyond the essential affordances. This is achieved through creative use of social media. The approaches that enable creative use are explored in this report. An example of such an initiative is *Open Plaques* (2013) which is based on a topical rather than audience focused approach to social media. *Open Plaques* self-identifies as “*the museum of the street*” (2015). The project began at a Yahoo Hack Day in 2009 and although it has received some support from institutions, including the RSA, *Open Plaques* is predominately resourced through donations of time by individuals.

Open Plaques initially began with basic datasets that had not previously been combined. The project makes use of existing tools, some of which are social media. A Google Map of blue plaque locations in London and a Flickr group of under 1,000 partially geo-tagged photographs of blue plaques formed the basis of the initial project (Roberto, 2009). This approach of using what is available, no matter the incompleteness of data, is central to instances of creative use of social media. This requires a flexibility of development from the outset. *Open Plaques* has developed through community submitted content into a database of over 36,000 plaque locations, supplemented by images on Wikimedia Commons (2013) and Flickr (2013). *Open Plaques* has a mixed demographic, and is organised around an open call for support around a topic. The data

from the project has been used by local authorities to share information about blue plaques (Bristol City Council, 2015).

This approach of using what is available, no matter the incompleteness of data, has been central to the project as it has developed through iterations into a database of over 36,000 plaque locations supplemented by images on Wikimedia Commons (2013) and Flickr (2013). The *Open Plaques* project has a mixed demographic, and is organised around an open call for support around a topic. The data from the project has been used by local authorities to share information about blue plaques (Bristol City Council, 2015). This project makes use of incomplete datasets to engage people with heritage through focusing on artefacts that are located within the heritage environment.

There are several other potential opportunities within the local environment that are also relevant nationally. This kind of initiative could be supported more actively by local museums. For example, walks around the local area could be organised that could incorporate historical or archaeological tours by museum professionals and volunteers which could aim to collect photographs and location data for blue plaques. Combining existing social media based resource with social experiences in the real world that are inspired by an interest in heritage is something that local museums would be uniquely positioned to offer.

P.9.2 Summary

Open Plaques has created a new dataset from user submitted images and information about blue plaque contents and locations. The project identified a need to collate this heritage asset. The principle of the project, to provide mechanisms for people to share information about blue plaques, takes a simple idea and has built a community of interest around it. The website is easy to use and originated in small partial open datasets that were linked together. Open Plaques has greatly enhanced the information available about this aspect of the historic environment. Local museums can support projects of this nature by highlights them to visitors and by providing contextual information about the content. This project also shows that the interest is more significant than a pre-defined audience.

P.10 Case Study 10 - Objects online are being conceptualised visually in fact they could be thought of socially

P.10.1 Museum of Archaeology and Anthropology and Drupal

Claiming back the relevance of an object and enabling reuse away from static documentation can be achieved through providing connections from an object to the real world. This can be achieved through digital contact networks that act as “*catalysts for engagement*” (Hogsden & Poulter, 2012: 273). The intention must be to challenge the object-focused approach of presentation. Hogsden and Poulter attempted this by enabling digital objects to be an actor in activities to respond to real objects at the British Museum and the Museum of Archaeology and Anthropology in Cambridge through experience (2012).

The network was staged within an online content management platform called Drupal and used already existing tools to facilitate sharing. Significantly, the project used real world workshops to generate creative responses to artefacts through social activities such as drama classes. The content management system that the project used provided a safe space online within which creative responses could be shared. This project highlights that social experiences on the Web do not need to be public. This case study seems to indicate that providing varying levels of private and public spaces can encourage more confident interactions with collections.

P.10.2 Summary

The Museum of Archaeology and Anthropology used a content management framework that was open source (free to use and change) to create an online space within which people could engage with artefacts from the collections on an individual and group basis. The Drupal site enabled creative interpretations and highly personal reactions to objects to occur in a safe space. The Drupal framework made creation and sharing of digital content, such as video, easy, and provided a variety of levels of access to content. This combination of private and public spaces increases confidence in contributors to create narratives that are away from the traditional established historical trajectories. The museum was able to use the space to support these new narratives, by responding to content with additional contextual information.

P.11 Case Study 11 – Nostalgia for remembering

P.11.1 Retronaut

P.11.2 Shorpy

Retronaut (2013) and Shorpy (2013) are both instances of online engagement with heritage through nostalgic remembrance. These websites illustrate the extent to which the Web can facilitate engagement with heritage without institutional involvement. The website Retronaut began in 2010 and collects historical images and shares them via several social media accounts, including Facebook and Twitter (Jones, 2014). The images are collected from various sources and are highly nostalgic, with a focus on unusual subjects or vintage aesthetic. The founder of Retronaut, Chris Wild, worked as a museum curator, and is now a self-styled *Web curator* (Wild, 2014: front cover). Retronaut emphasises the curatorial practice present in the identification and presentation of digital content. The website has had a high take-up amongst organisations, and has led to a National Geographic published book (*ibid.*) and a partnership with Mashable (Salvo, 2014). Significantly, Wild and the team of curators also create digital content, digitising old postcards and photographs found in second-hand shops (Roberts, 2014).

Shorpy describes itself as a “*vintage photo blog*” (Shorpy, 2014) and also has at its centre a highly motivated individual. The project was co-founded in 2007 by Dave Hall, who had been a newspaper editor (Wallace, 2013). The skills of Hall have led to Shorpy being a different kind of resource to Retronaut. This is because Shorpy is made up of images from the Library of Congress collection, which have been restored from original scans (Hall, 2008). Hall works on the images because they were made available by the Library of Congress under public domain license, which means that they can be changed and shared with no copyright restrictions preventing reuse. The images in Shorpy are improved by Hall and added to a blog. The restoration process that the images on Shorpy have gone through is not the kind of amendments to a historical record that a museum, archive, or library would necessarily endorse. However, the website is incredibly popular and this could be due in part to the sharpness and attractiveness of the digitally enhanced images. Some research is conducted into the images, but in most cases, the original data from the Library of Congress appears with the images. Users submit augmentations of the image information, and in this way, the website is benefitting the Library of Congress collections. However, there is little evidence of the work being carried out by Hall and the website users feeding back into the Library of Congress research.

Both Shorpy and Retronaut engage in wistful views into the past to present history in a particular light. This approach has proven to have a positive impact on the creative development of cultural activities (Medaille, 2010). There is also some evidence that they have prompted furthering of understanding of historical events (Funk, 2012).

Local museums could attempt to identify ways to increase the reusability of digital content derived from collections, but Shorpy highlights that consideration could also be made of how museums can encourage traffic back to the collections themselves by way of online collections databases or Web-based exhibitions once it has been re-contextualised. A potential direction is to develop partnerships with projects like Retronaut to contribute content that is curated by the local museum provisionally and then offered to the website for sharing. This would make use of the already established networks of interest.

P.11.3 Summary

The Retronaut blog and associated social media accounts shares historical images and videos that have been found elsewhere on the Web, or created specifically for Retronaut. Old postcards and photographs are digitised by the Retronaut team, and then shared via several social media accounts. Content is often shared within nostalgia or curio based themes. Contextual information is provided for images with images acting as a device to tell a story. For instance 39 photographs selected from a collection of 2,000 images by one photographer (now cared for by the Royal Photographic Society) are used to tell the story of a family who travelled the world in the 1920s (Arbuckle, 2015). Retronaut has recently partnered with the media website, Mashable, which selects and shares news and content of interest. The partnership has resulted in high profile publicity for Retronaut. The project itself highlights how the social platforms can be used to build a following through interest in highly varied content that is presented within a thematic tactic.

Shorpy shares images that have been modified by the website creator. Images released by the Library of Congress make up the predominant collection, but over time user submitted images have been added to the website. The site uses a blog format (time-bound articles) and emphasis is on viewing content as it is shared by the blog administrator or browsing existing posts, rather than as an online collections database that can be searched. There is a separate website that acts as an archive of the images (Shorpy Archive, 2014). In this site, digital images can be viewed and purchased. This separates the incidental, light-hearted experience of the images from the more functional needs. Shorpy is a potential approach to overcome the catalogue model for sharing digital content from collections online.

P.12 Case Study 12 - Crowdsourcing

P.12.1 British Museum MicroPasts

It is generally accepted that the Web can provide a place where amateurs and professionals can meet and ideas from both can cross-pollinate (Goodchild & Glennon, 2010; Doan, *et al.*, 2011; Brabham, 2013). Museums are encouraged by digital savy commentators in the sector to embrace the input of the amateur (Proctor, 2010; Oomen & Aroyo, 2011). The value of the 'crowd' is a much discussed topic for museums (Shirky, 2008), but less popular is the value of the experienced amateur.

The value of amateur contributions to knowledge online is something that local museums could work to highlight. The experienced amateur has much to offer a smaller locally focused museum, as they may have a specific skill that is unrelated to their previous professional life, or merely untapped outside of their immediate surroundings. There are numerous case studies of museums that have realised the potential of the experienced amateur as a resource (Ridge, 2013), but less is documented about the positive impact of the museum for the experienced amateur (Walker, 2014). The research conducted for this thesis indicates that there needs to be a more nuanced understanding of the effects of social tools and platforms online on skills development (Perry & Beale, 2015). This is because crowdsourcing is not generally a social task, as activities tend to be carried out alone by individuals who do not communicate with other participants. Whilst there are instances of crowdsourcing that encourage social activities (Satzger, *et al.*, 2013; Savage, 2013), these seem to manifest through gamification which risks a competitive and less inclusive model of participation (Jagoda, 2014).

The British Museum's project, MicroPasts (2013), approaches objects from the perspective of the museum's needs, facilitating crowdsourced augmentation of the collection through its PyBossa-based (2013) website. The project aims to investigate the potential of crowdsourcing for data improvement and also engagement with heritage as part of public archaeology (Bonacchi, 2014). The project is concerned with the sustainability of culture through developing a model for using Web technologies to this end. Users carry out tasks such as photograph masking (manually cutting out backgrounds from photographs of objects) as part of a pipeline for 3D modelling of objects, and transcription of scans of object record cards. The project moved from this earlier model to a more co-creative form by discussing potential developments with participants (Bonacchi, 2015), which then developed to incorporate training of participants in new skills, such as the creation of

3D models. But the project team acknowledges (*ibid.*: 11:08-11:13) that it has been less successful in engaging with special interest groups such as local archaeology organisations.

Longer term participants in the crowdsourcing projects on the MicroPasts platform reported that their top motivations for participation were as a “*learning/training opportunity for collaborators*” and as a “*learning opportunity for their family/friends*” (Bonacchi, 2015: 13:40-14:00). The learning potential of the use of ICT obviously plays an integral part in participants’ experience with MicroPasts. This points to there being potential for local museums to support this need. It has not yet been possible to see the long-term benefits that participation with MicroPasts may have, but initial evaluation signifies that there may be transferrable skills development (*ibid.*).

The PyBossa platform (2013) does potentially offer a way to stage crowdsourcing projects, perhaps for the digitisation of collections data. But currently the digital skills required to install and run the platform are beyond the reach of almost all local museums. MicroPasts is funded by the AHRC under the Capital Funding for Digital Transformations in Community Research Co-Production in the Arts and Humanities, and is a partnership between University College London Institute of Archaeology and the British Museum. This partnership model appears repeatedly in the successful use of social media by museums, and would be one of the ways that local museums could use crowdsourcing.

Many of the studies of the impact of social media on society have been carried out by technology companies in partnership with research institutions (Science and Technology Committee, 2011; Toivonen & Friederici, 2015), and in the museums sector in the past ten years or so, much of the innovation in technology use (particularly the Web) has been developed through a similar model, with academic institutions working alongside commercial organisations to provide solutions for museums (National Museum Directors’ Council, 2004; DeLaurentis, 2006; Søndergaard & Veirum, 2012; City of London Corporation, 2014).

Kickstarter (2013) provides a model for involving people in advocacy projects from an earlier stage, as most projects are proof of concept (Coomber, 2014), or indeed as speculative design (Kaufman, *et al.*, 2013). Open design through crowdfunding projects and could result in improved collaboration between people and organisations. However, current platforms for crowdfunding, such as Kickstarter do not organise around people, but instead around projects and funding, and there is little opportunity to contribute to the design process of projects. On Kickstarter currently, there are 34 unsuccessful projects and 22 successful projects (2014). There are many other projects that are inspired by archaeology (for instance there are over 200 Roman themed

projects) but there are currently no projects that concern archaeological archives. The major issue with the use of crowdfunding within the museums sector is the lack of participation that can occur once a project has been launched. Within the Higher Education sector crowdfunding is of increasing popularity (Johnson, *et al.*, 2014: 14), but the GLAM sector has been slower to take up the opportunity afforded by opening up projects at an early phase to solicit support. There have been some archaeologically focused crowdfunded implementations, most notably DigVentures (Walker, 2014) and MicroPasts (Bevan, *et al.*, 2014).

The MicroPasts project (2013) focuses on objects and the improvement of digital surrogates of objects for consumption. Local museums tend to focus even less on the significance of the actual object than other types of museums and will have collections made up of objects that are significant because they are *representative* of community and individual experience, that have a meaning that is conditionally linked to context (Curtis, 2006: 122). These objects are held in trust by local museums because they hold a significance at a contextual level, being simultaneously objects that have a biography and objects that ‘speak’ within a historical context (Hoskins, 2006: 78), rather than being literal, and this means that local museums tend to favour narrative over aesthetic experience. For local museums however, the metier of the collection has been similar to the experience of heritage, where the emphasis has been on the metaphorical strength of the experience rather than its literal content (Holtorf, 2010: 43-44). Yet, local museums fall in line with other larger institutions and attempt to provide an online collections database.

P.12.2 Summary

This UCL Institute of Archaeology and British Museum project has several strands. Of particular interest, is the online platform being used to provide mechanisms for people to edit and add to digital content from collections in order to improve the usability of that content and to support research aims of the partner organisations. To date, the datasets added to the site have been chosen and prepared by the project partners. After creating a user account, individuals can work on content, improving records and making new digital objects by carrying out tasks such as editing sets of artefact photographs so that 3D photogrammetric models can automatically be created from them. MicroPasts platform is built on PyBossa (2013), which is an open source framework for creating crowdsourcing applications. The MicroPasts project has added the much of the code from actions within the platform to GitHub (2014), an online source code community that enables sharing and development of open source software within repositories. By sharing the source code, MicroPasts is enabling reuse of the infrastructure, although this is still well beyond the ICT capabilities of many smaller, local museums.

P.13 Case Study 13 - Long Tail

P.13.1 Open Government Data Portal

In early 2010, the new data.gov.uk (2013) website was launched by the UK Government. The website acted as the online public portal for Government-owned data (Number 10, 2010). Setting up and supporting an infrastructure of open government data by the UK Government, and by other governments around the world, has resulted in positive societal impacts such as changing existing policies (Tinati, *et al.*, 2012: 1). It has also led to a demonstrable social shift to activities carried out by government departments being considered to be: “*open by default*” (Hrynaszkiewicz & Cockerill, 2012). The open agenda is impacting across other sectors. For example, it is driving the development of new publishing models in the academic world (Laakso, *et al.*, 2011; West, *et al.*, 2012; Bloom, *et al.*, 2014), and new business models in the commercial world (Huizingh, 2011; Omitola, *et al.*, 2014).

There is a move in the cultural heritage sector also to support open data practice, and this has resulted in some innovative projects that are proving the value of opening up data about collections. These projects have generally been carried out by larger, well-resourced museums with dedicated digital teams. In the museums sector, it is in the university museums which are more geared towards mechanisms for publishing digital content under open license (Molloy, 2011), where opening up collections is resulting in improved scholarly impact (Lindsay, 2014).

Open government data was predicted to have a Long Tail (Open Data Institute, 2012: 3). This model identified by Anderson has a Pareto distribution (2006). In the Long Tail model, the majority of use of open government data would be seen in the first 80% of datasets, but this would be representative of only half of the use of all of the datasets, and that most datasets will instead have little use. In this model, the lower use in fact more representative of the overall population and will exceed the use of the seemingly dominant datasets. See figure 50 overleaf as a demonstration of the Long Tail in open government data use.

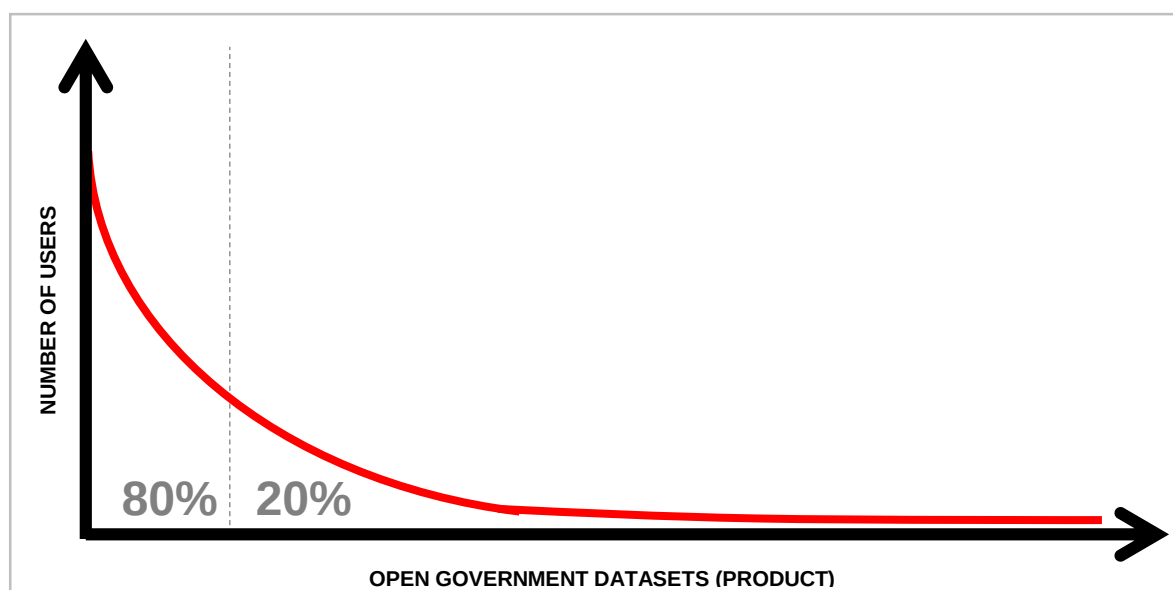


Figure 50 - The Long Tail principle

The Long Tail represents a way for local museums to respond to the trend in short-head marketing (Lew, 2008) which is a more popular business model for local authority managed museums (Kotler & Kotler, 2000; Chhabra, 2008; Cole, 2008). Currently, mass market appeal is pursued rather than niche market development and this is missing a larger portion of potential users. The Long Tail model (Anderson, 2006) is more realistically aligned to locally specific objectives and could be adopted by local museums when engaging with social media.

An example of the potential for opening up data is the Walkonomics app which, in the UK, uses a dataset licensed under Open Government License and provided by the Office for National Statistics. The app can be downloaded from the Google Play Store (2015) or from the Apple iTunes App Store (2015). A central dataset, 'ID 2007 Average IMD Score' (ONS, 2010), contains information about population that is weighted according to a combined index of multiple deprivation scores for a geographical area. The reuse of this data in this context is an example of how data can be used in unanticipated ways. The app aims to create routes between locations that are more attractive and less hazardous for pedestrians. The datasets are improved with user submitted ratings of the 'walkability' of specific streets. Historical environment data, or archaeological datasets could further augment this app.

P.13.2 Summary

The data portal for UK Government data has led to unanticipated and creative reuse of datasets. Several instances of the combination of datasets to create useful resources exist. The open data

movement provides several use cases, including apps that connect together datasets from several departments with user generated data, that illustrate the positive potential of opening up data that may not be considered by those within the institution to be particularly useful, or of high enough quality to enable meaningful reuse. The open agenda also provides examples of the potential contribution that open data can make to the economy.

P.14 Case Study 14 – Community-led identification of heritage

P.14.1 ACCORD project

In the museums sector, the Web is often conceptualised using the metaphor of a physical medium. This thesis intended to evidence how this notion could result in stagnating the development of the use of online content and to obscuring local museums' view onto the Web as a place for new forms of individual and community engagement to occur. Innovation in curatorial online needs to be identified. The Archaeology Community Co-production of Research Data (ACCORD) project (2013) acts as a useful case study into the potential for incorporating participative design of digitisation projects into the work of local museums. This can lead to creativity in presentation of digital content from collections on the Web.

The ACCORD project is run by the Digital Design Studio at Glasgow School of Art, Archaeology Scotland, the Royal Commission on the Ancient and Historical Monuments of Scotland, and the University of Manchester. The project uses 3D technologies as a way to co-produce models of archaeology, as part of a co-produced history of objects. ACCORD has an emphasis on learning and this is an essential role of the local museum, to facilitate learning through access to collections. The ACCORD project offers a different model to MicroPasts (2013) described in case study 12, as the focus is not driven by collection needs and is instead driven by participants. Best practice from the ACCORD project is the way in which the team let the communities lead the work being carried out, the groups identified objects of social significance based on their own criteria and this led to unanticipated recording, including graffiti left on rocks by mountain climbers (ACCORD, 2014), which in turn has resulted in an increase in authenticity of the digital objects created.

For local museums, this shaping of the Web can occur through contributing digital content to community spaces online and facilitating the creation of knowledge using that content as an atom to which new contextualisation can be afforded through digital storytelling. The ACCORD project is an analogous example of the way in which a smaller museum can engage with communities using social media as an enabler (ACCORD, 2013). Communities were trained by the project team

to record objects of archaeological significance and to research into those objects using more traditional historical and archaeological research skills. The objects that were recorded were shared online as digital surrogates, and the process for creating the objects was also shared online through the project's blog and Facebook page.

The objects created as part of the ACCORD project are a legitimate archaeological archive. The future use of the data created will provide a useful reference for archaeologists and museums professionals looking to improve the way in which archaeological archives are deposited and accessed in the UK. The data has been collected with a record of the motivations of the people who recorded it, as the relationship between the people and the object is key in this example.

The ACCORD project has experimented with the legitimacy of new forms of digital objects for enabling moments of contact between heritage organisations and people. The groups have produced 3D data through training with communities, and this evidences the potential for considering the Web as more than the next step in the technological development of the printing press. ACCORD has contributed to the expression of curation for archaeological data.

P.14.2 Summary

The ACCORD project is a partnership between higher education institutions and local history groups. The project trains groups to use digital recording techniques to create 3D models of objects such as monuments in the landscape. The community-led identification of subjects for recording highlights the potential for using heritage and digitisation of collections as a focus for the development of digital skills by local museums.

P.15 Case study 15 – Engaging with people through interest-focused information

P.15.1 Remember Me? project United States Holocaust Memorial Museum

See Chapter 6 of the thesis for the analysis of this case study.

P.16 Case study 16 – Developing private-public spaces for creation of new narratives

P.16.1 Reciprocal Research Network, Museum of Anthropology, University of British Columbia

See Chapter 6 of the thesis for the analysis of this case study.

P.17 Case study 17 – Opening up collections to encourage social interactions with artefacts

P.17.1 Open agenda, Wikipedian in Residence, Google Art Project, York Museums Trust

See Chapter 6 of the thesis for the analysis of this case study.

P.18 Case study 18 – Interest-based community-led groups online

P.18.1 York Past & Present Facebook Group

Away from organisational control, there are several examples of creative social media use that are driven by community groups or by individuals. These have developed out of a particular need and are therefore topically focused. These groundswell instances of people engaging with heritage through social media can occur because they are not blocked by the issues described in Chapter 4 and 5 of the thesis. The *York Past & Present* Facebook Group (2013) is an example of this kind of non-institutional expression of heritage online.

Facebook is a popular social networking platform for community use and research has shown that it can contribute to confidence building (Crisan, 2014). Studies have also found that it can also impact positively on loneliness (Ryan & Xenos, 2011). Social capital can be built from incidental-knowledge acquisition (Ross, *et al.*, 2009; Barker, *et al.*, 2013), and this can be experienced through Facebook use. *York Past & Present* is not institutionally managed, instead it was started in 2012 by a small group of people who had a common interest (Bringham, 2014). The group is closed and so users must request access, but despite this barrier, as of February 2014 there are over 9,800 members to the group. Much of the content is original, created specifically for the group. It comes from user supplied content in the form of photographs and digitised artefacts like old postcards and personal history ephemera. Some content comes from existing Web sources

such as local newspapers and digital collections databases provided by regional libraries and archives. This model for identifying and creating content means that digital images and text from local museums are often shared in the group.

When content is shared there is a very high level of engagement, and users return to content several times over the space of a few days, often in response to activities or events in their own lives. The theorisation of social media has emphasised the removal of the intermediary in communication between users (Bruns, 2008). But it is demonstrated in *York Past & Present*, that although the group is not institutionally managed behaviour is monitored by a small committee of administrators. One particular affordance of social media is the tension between the enablement of democratisation of voice and the reproduction of real-world power relationships (Thumin, 2008). This is demonstrated within *York Past & Present*; as with most social networking platforms, there are power users who contribute the majority of content (Brandtzaeg & Heim, 2011), only a few members of the group are active participants in conversations.

The group has clear rules of use, pinned to the top of the news feed, within which the admins for the group are identified (Richard Bringham, 2015). The rules do not change very regularly, but they have been subject to much discussion with over twenty individuals commenting on the centralised nature of the group content. The conversations motivated by content are often highly personal and because of this, group moderators sometimes have to remove content. Many group members start discussions by asking whether the content is appropriate (Maureen Scott Smith, 2015), and this is collaborative preventative behaviour (Lampinen, *et al.*, 2011: 3225). This means that the group remains focused on discussing the heritage of the city of York. Often, members show other members how to find information online (Ed Akehurst, 2015), which supports the idea of social networks providing “*digital circles of support*” (Godfrey & Johnson, 2009) for users. In undertaking these activities, users are teaching digital skills and these are gained by users out of their social rather than technical needs. There is little institutional involvement in *York Past & Present*, despite several members of the group being representatives of heritage organisations in the city. These individuals are perhaps prevented from contributing because of those affiliations within which authority is implicit.

The *York Past & Present* Facebook Group currently has little institutional involvement (Bringham, 2014). It is however being studied by a higher education organisation (Graham, 2015a), and the core group of administrators have taken part in real world events that are organised between the group and researchers as part of an Arts and Humanities Research Council funded research project (Graham, 2015b: 5). In this relationship with the institution, and in the management of the

group through close monitoring of content by administrators described above, it could be argued that *York Past & Present* is replicating a real world heritage organisation, creating their own institutionally derived interpretation of heritage. There is little research available to support this specific view, but applying research from the relationship between experts and local history societies to this specific issue of online non-institutional heritage groups within social media, provides a way to consider this perspective (Urry, 1995; Sheeran & Sheeran, 1998; Mason & Rennie, 2007; Lewis, 2011: 39). However, in self-organising, they are also giving voice to what Harvey calls “*small heritage*” (Harvey, 2008: 20). I would suggest the more appropriate term of ‘located heritage’.

The membership of the *York Past & Present* Facebook Group is close to 10,000. Despite being unable to overcome the affordances of social media that have resulted in the recreation of real world relationships, the high levels of participation cannot be denied. Democratisation of participation has partially occurred, particularly in comparison to other instances of institutionally driven York heritage being expressed online. As these perform expert-focused interpretations of heritage. The administrators within the group are very democratic, openly discussing reasons for content being deleted or amended. Members of the group are encouraged to narrate the content that they upload from questions about context from other users.

P.18.2 Summary

The York Past & Present Facebook Group is an example of a community-led group that shares information about the history and development of York and the environs. A small selection of individuals in the group meet in the city of York on a regular basis and are increasingly involved in heritage events. The group serves as an instance of a social networking platform being used to share and build knowledge about local heritage. The group also maintains a blog, a Twitter account, and a YouTube channel. The group frequently organises petitions and appeals for locally-based concerns, such as homelessness and flood victims, but is predominately a collective of individuals who have an interest in the history of the region. The highly confessional nature of much of the content in the group has led to individuals receiving support from the assembly and has little institutional involvement. The content within the group is a mixture of user generated images such as digitised photographs and sourced materials from elsewhere on the Web. York Past & Present provides a scenario against which to evaluate the potential collaboration between organisations and special interest groups online within social media.

Appendix Q Proposed Solutions – Evaluation at HCT

This appendix supports Chapter 7 and contains analysis of the evaluation carried out at HCT. Table 20 overleaf summarises the findings from evaluation of the proposed solutions at HCT.

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
Located museum <i>Support the negotiation of identity by providing a safe space</i>	Facilitating expression of identity rather than audience building	Support skills development by providing content for reuse	For HCT, social media is used to broadcast information, and there is little evidence of reciprocal information sharing or of identity building. Currently, the use of social media to promote interest in the work of HCT relating to care of collections or research into collections is very low. Sharing objects through media commons can lead to civic participation (Zhang & Chia, 2006), and this in turn has an impact on individuals' sense of community. Hackathons are a well-researched example of this occurrence (Santo, 2011; Costanza-Chock, 2012; Culture Hack, 2013; Horniman Museum and Gardens, 2013; THATCAMP2013, 2013; Almirall, <i>et al.</i>, 2014; Irani, 2015). For local museums, there would be little likelihood of organising an event such as a hackathon, but there is an opportunity available to act as a broker for datasets which could be used by hackathons through providing online resources and high quality digital surrogates of objects (Baltussen, <i>et al.</i>, 2013; Culture Hack, 2014: 39; Dutch Heritage Innovators Network, 2014).
	Networks for professional skills development	Innovating with collaborative networks for digital skills development	There has been considerable interest in recent years in MOOCs for professional skills development, but participatory skills sharing approaches to these environments have been slower to develop (Daniel, 2012; Ahn, Butler, <i>et al.</i>, 2013; Sanderhoff, 2014; Stephens & Jones, 2014). Professional support networks could be encouraged by local museums such as HCT to develop centrally designed participatory MOOCs. HCT could investigate the potential interest amongst volunteers and staff members in a MOOC that aimed to provide introductory level knowledge about online curatorial practice.

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
	Supporting skills development	Engaging with national events on social media to provide experience with tools and platforms	It is essential that awareness of increasing skills gap be promoted in the museums sector, with a particular emphasis on improving digital skills in local museums. At HCT the short-term presence of graduate interns has had a positive impact on technology use, but this has been temporary due to lack of access to training post technology implementation. Additional opportunities for at-work training through experiences of social media need to be identified. This could be implemented by encouraging HCT-wide uptake of social media tied into national or international events, such as the Day of Archaeology (2014) or the #AskACurator (2014) day. Supporting these initiatives on an event-basis reduces the pressure on staff members to find time to learn new skills for social media use. Instead, through a day dedicated to experiencing a particular tool or platform, skills swapping can occur in order to improve the use of that tool more broadly within the organization. External specialists could be informed of the organisation's intention to engage with the event, and may be able to offer remote support.
	Expressing curatorial skill online	Experimenting with open licensing through multi-platform narratives of digital surrogates of objects	Curators at HCT unable to adequately express curatorial skill through existing Web resources managed by HCT. Social media presents a potential platform for encounters with local museums' collections, as they have the potential to create third place within social media overcoming the major barriers to flexibility of identity expression within social media (Oldenburg, 1999). Local museums can respond to this issue by shaping the Web through the provision of content that represents the pluralism of contemporary society.

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
			Images of selected objects could be digitised under open license and then shared via social networking platforms with an overarching narrative to encourage reuse. This replicates the model of exhibitions, which is familiar to staff in local museums, but translates the format, providing an additional stage from which local museums can work. This kind of content sharing can lead to dialogue with users, and input into areas of interest in relation to the collections. As organisations, museums have not been leading in the development of skills for employees (Marty, 2006; Trant, 2009), but they have been pushing forwards methodologies for provisions of skills development programmes for volunteers. Local museums are in a position to initiate innovation in skills advancement (von Krogh, 2012), and social media can support this.
	Connecting external sources to collections data online	Linking external contextual data to object data using metadata indexes	HCT could develop a methodology to make use of existing digital assets. Analysis of the content on the website could inform future directions for content creation. Online content could be represented in a way that expresses the complexity of curatorial skill, whilst also encouraging user-generated content that is submitted to augment content that is lacking in context. Requests for information to improve HCT Web resources information could be directed to curatorial staff at HCT and museums professionals outside of HCT who care for analogous objects. HCT could link to information from outside online indexes and databases. This link online between two similar objects could be created by the use of a centralised location for referring to both, such as the HCT website, or a blog post correctly tagged and with good metadata, or could be created by

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
			referring to the link in several social media platforms in order to increase saturation.
Open museum <i>Augment curatorial practice</i>	Iteratively moving towards open licensing	Enable creative reuse of content by inviting community feedback	HCT does not currently have any CC licensed or Public Domain digital content. The open government agenda is evidencing the potential impact of open data at a local level although evaluation is in its infancy due to the newness of the movement (Borzacchiello & Craglia, 2012). There is a need to collect information about licensing options and to identify service user needs. As the potential users are not currently perhaps engaging with HCT either digitally or in the analogue world, there is a requirement to design a methodology for information-finding on this topic. Across the sector, museums are struggling to find a balance between protecting copyright of artefacts often under third-party ownership (Dietrich & Pekel, 2012), whilst also creating opportunities for access of collections that are as open as possible. Initiatives to engage with open data are finding that copyright issues are taking precedence over participatory design goals (Marttila & Hyypä, 2014). There is benefit to be gained in raising awareness of organisations' brands through opening up collections online that is not a direct revenue gain but is associated with brand equity (Evans, <i>et al.</i>, 2012; Zenker, 2014). The Wordpress blog and the HCT Facebook page could be used as a way to share a series of posts that the CoA could write which highlighted potential opportunities for creative reuse of content from the archaeology collections. Each post could suggest the reuse of content and provide some examples of artefacts or archival materials that could be shared through media commons under the appropriate open license. The posts could aim to collect responses from these communities in order to establish whether there is a perceived

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
			need for such digital content and to identify the most appropriate license for content such as images.
	Signposting archaeological content more effectively	Creating positive links between social media content and everyday activities in collections care	Research into viral marketing evidences that timely response is integral to positive reactions to content sharing (Berthon <i>et al.</i>, 2011; Freeman, <i>et al.</i>, 2015). The current Facebook page for HCT rarely shares content relating to collections. Almost all content relating to the archaeology collections is currently automatically generated from the Wordpress blog managed by the CoA. This content has a low-response rate because it is not written with the current audience in mind. There is potential to extend the reach of the Facebook page for HCT by creating content that fits to a clear theme and is immediately recognisable as being archaeologically related. This could be as simple as including a clear reference back to the archaeology collection in the title of the content. HCT could provide tailored headlines and abstracts for Facebook and Twitter that describe more appropriately the article to encourage clicks. HCT must identify ways of monitoring responses on Facebook, and reacting accordingly. If there is considerable interest in an article, HCT could provide follow-on content that is tailored to the audience. Preparation for this can be minimised by adding content to the Wordpress page that is more reusable. For instance, having photographs within Wikimedia Commons rather than in the Wordpress site itself. This will also hopefully encourage reuse of content within new platforms, and new communities, such as Wikipedia articles.
	Fostering transparency with volunteers	Opening up organisational processes in order to	HCT must establish a more transparent relationship between the organisation's formal employees and its volunteers. Social media profiles can build stakeholder support (Waters, <i>et al.</i> , 2009). Volunteers have a unique

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
		crowdsource community input	relationship with local museums, and this could be recognised by HCT. At HCT there is a need to improve communication across the many venues more broadly, and a social media space could support this. A major challenge to open innovation is the resultant pressures on objectives from external opinion (van de Vrande, <i>et al.</i>, 2009). HCT must foster transparency in communication of objectives to volunteers, and must develop ways to capture volunteer strategies to overcome issues and perhaps enable volunteers to re-design individual objectives for collaboratively designed aims. Social media could be used to communicate with volunteers in an online space dedicated to transparent presentation of challenges for which volunteers can contribute skills and resources in a meaningful way. Transparency is an important factor in innovation and can lead to ideas generation (Beale, 2012a; Chesbrough, 2012; Vuori, 2012; West, <i>et al.</i>, 2014). HCT can broker a relationship with locally based Wikipedia editors to encourage content reuse, by attending a regional meet-up and introducing the collections as a resource in order to establish which parts of the collection would be most useful in relation to the interests of the locally based Wikipedia users. This will improve the decisions made regarding the digitisation of content.
Connected museum <i>Support community-</i>	Advocacy through supporting non-institutional groups	Supporting reuse of content through active sharing of resources with	Engaging with already existing groups via social media can provide an additional channel for advocacy building. There is an opportunity for an organisation to support the information gathering activities of such groups and provide digital content such as images that groups could use to support individual responses to real world events. Groups like this respond in an agile way to events, and share content about current activities occurring in the

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
<i>led aims, whilst maintaining organisational presence</i>		established communities	locale. By identifying related content from collections, museums could support the identity building that occurs. HCT could identify relevant regional heritage focused Facebook groups and advertise on a semi-regular basis digital content that is inspired by real-world events. Submissions to the group can be modest, HCT need not digitise all of the archives in the collection.
	Reducing technological determinism through social media use	Design objective-driven experiences that are conceived bottom-up	HCT can use lessons from USHMM's approach to inform the identification of methods for avoiding technologically determined activities. HCT must enable the focus of activities to be on the collections, but this must be based in community and individual requirements. The preoccupation with social media use must be overcome. The approach for social media uptake could be based on an awareness of the social embeddedness of social media and the social implications that therefore result from the use of particular tools. Through the promotion of awareness within the organisation, staff can design objective-driven experiences with social media that fulfils the needs of the communities that HCT serves.
	Informing community needs through event-focused social media use	Carrying out a digital audit to better understand community needs	Local museums have the potential to inform the future development of social media, and the expression of organisational specialisation through appropriately identified tools and platforms can contribute to achieving this aim. HCT can support the development of community-focused resources and spaces through social media. In order to identify appropriate online spaces for community development, HCT must first audit the digital needs of current communities of interest with which the organisation engages, in order to identify potential gaps in current service delivery for those communities. The auditing of current groups

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
			through assessing needs must be informed by the findings from this thesis. Outcomes that are attainable based on the organisation's current skills base must be developed through reflexivity on the part of the change practitioner. Social media adoption relies on informal experimentation that occurs on an individual rather than at an organisational level (Mergel & Bretschneider, 2013), and these proposals are in support of this model.
	Joining up real world concerns with online collaboration	Use an existing digital platform to enable people to respond to research questions	Identifying ways to incorporate small interventions on existing digital solutions used by HCT could improve people's experiences of HCT online by allowing for communication between users. HCT can identify parts of the archaeology collections that are particularly at risk, and create ways for people to improve the situation. This would need to be possible digitally, as well as having a real world component that would enable people to follow-up online engagement with physical interactions with the collections. HCT could contribute to improving the crowdfunding pipeline more broadly, by crowdsourcing the design phase of a project with a view to evaluating the potential for crowdfunding for the museums sector. Improvements to the collaborative design process, including funding, can be achieved by using already existing digital platforms to stage early open design events where research questions associated with the collections are put forward to self-defined community representatives. HCT can provide an easy to use forum for communication of problems that could elicit responses through simple functionality such as comments. HCT could audit current social media content in order to identify opportunities for engagement.
	Encouraging discussion	Releasing digitally interesting content	There are several potential avenues to explore that could improve the reach of existing social media at HCT by means of promoting articles within HCT's

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
		openly to facilitate reuse as well as object identification	online social media accounts, but also with several social networking platforms that would be appropriate opportunities to encourage readership. The Hampshire Archaeology blog is currently focused on providing narratives around archives held at Chilcomb, but many analogous collections exist that could also be included in articles, such as local archaeology societies. Currently, the blog does not include any social tools that allow for discussion around articles, or for feedback to be gathered. People are keen to contribute to calls for assistance to improve knowledge about collections, and this could be encouraged by sharing information about the archive that is not complete.
Collaborative museum <i>Contextualise away from historical, nostalgic trajectories of meta-narratives</i>	Volunteers and innovation	Enable broader experience of social media within a safe environment	As part of the research for this PhD, I have carried out a series of experiments with the CoA in order to ascertain the potential support that can be offered by partnership with an organisation that has access to digital skills. The Day of Archaeology was chosen as an appropriate way to improve the reach of blog posts from HCT. The blog posts aimed to encourage involvement by volunteers of the archaeology collections with a more relaxed form of communication through blogging. Individuals who use social media in a personal capacity, are more comfortable adopting internal informative publishing models for professional activities (Primo, <i>et al.</i>, 2013), and this is evident in research into organisational blogging more broadly (Agerdal-Hjermin, 2014). Reticence in using digital tools is tied into pre-established attitudes about social media (Lüders & Brandtzæg, 2014), and ways to overcome this must be identified. Within the standard technology acceptance model expectancy of performance and effort must be considered alongside social influence

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
			(Venkatesh, <i>et al.</i>, 2003: 446-447). In order to improve use of technology within an organisation, and this can be applied in a social media context (Papadopoulos, <i>et al.</i>, 2013). HCT staff could bear this in mind when working with volunteers, and support the broader experiencing of digital tools such as Wordpress by enabling individuals to view articles and by encouraging them to read other blogs. This could be achieved by suggesting a new related blog for them to read each week and incorporating this suggestion into the blog post.
	Utilising support networks	Strengthening community connections through facilitating real contributions to collections knowledge	Connections between external collections could be improved by inviting members of special interest groups to submit brief contributions to the Wordpress blog, which are inspired by content from the groups' own research. The CoA could augment articles with links to artefacts and records with the archaeology collections at HCT. The Wordpress blog does have comments functionality at the end of every post, but there has been minimal use of this opportunity to date. In order to solicit feedback, the CoA and volunteers could write posts that are aimed at specific audiences and request input in a more direct manner. Inviting contributions from external groups would encourage community involvement in the improvement of knowledge about the archaeology collections for HCT and for the external groups also.
	Volunteers and digitisation	Developing guidance to enable tool and platform use	At HCT, volunteers have had no involvement in digitisation to date, and despite the willingness of staff to create digital content and the existence of a substantial group of committed volunteers who visit the archaeology collections on a weekly basis, very little has been put online. This is predominately due to the lack of technology availability in the offices within

Approach & potential impact	Objective	Context-specific solution for HCT	Description of project, before evaluation at HCT
			which the team is based. However, in order to improve the availability of technology, the CoA would need to have a considerable case of evidence to argue for funding to acquire new hardware. This is necessary as the interventions must be sustainable, but also scalable in order to continue once more appropriate technology is procured. A guide to writing content for the Web that is written with museum stores volunteers in mind would act as a support tool for instances such as this. This kind of guide would have far more usefulness longer term as it would not be platform or tool specific, but would provide volunteers with the skills that they need to engage with the social Web. The CoA works with each volunteer on an individual basis and has a good knowledge of each person's preferences and abilities in relation to tasks. However, there is sometimes a discrepancy in the sector-related knowledge of volunteers in relation to the knowledge of the CoA. The CoA has no mechanism for sharing news about online events. A centralised online space to do this would perhaps encourage volunteers to share information about their contribution to the work of the HCT within their own online networks.

Table 20 – Summary of proposed solutions for HCT as they apply to objectives and overarching approaches

Q.1 Detailed analysis

The following sections analyse the evaluation at HCT in detail.

Q.2 Located museum

Q.3 Objective: Facilitating expression of identity rather than audience building

For HCT, social media is used to broadcast information, and there is little evidence of reciprocal information sharing or of identity building. Currently, the use of social media to promote interest in the work of HCT relating to care of collections or research into collections is very low. The Alton Buckle is one of the better known objects in HCT care. When installed at the Curtis Museum in the autumn 2014, the Facebook page included only two photographs of the re-installation, one is recycled from the Hampshire Archaeology Wordpress blog. Web searches for the 'Alton Buckle' now return one of the images, but the quality is not high and no evidence of reuse of the image was found. See figures 51 and 52 below and overleaf.

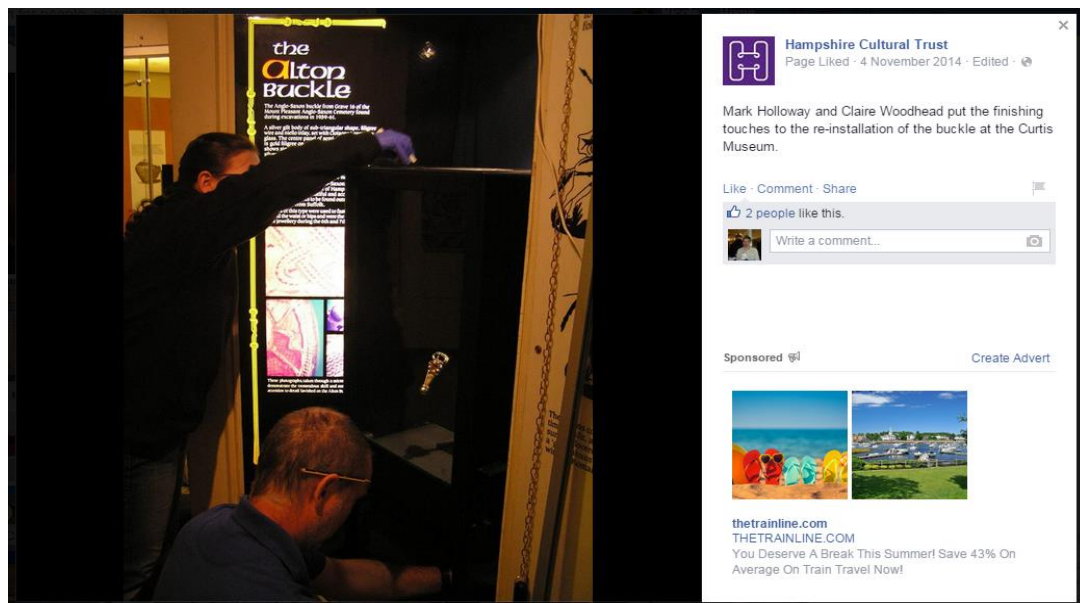


Figure 51 – “Mark Holloway and Claire Woodhead put the finishing touches to the re-installation of the buckle at the Curtis Museum” (HCT, 2014b).

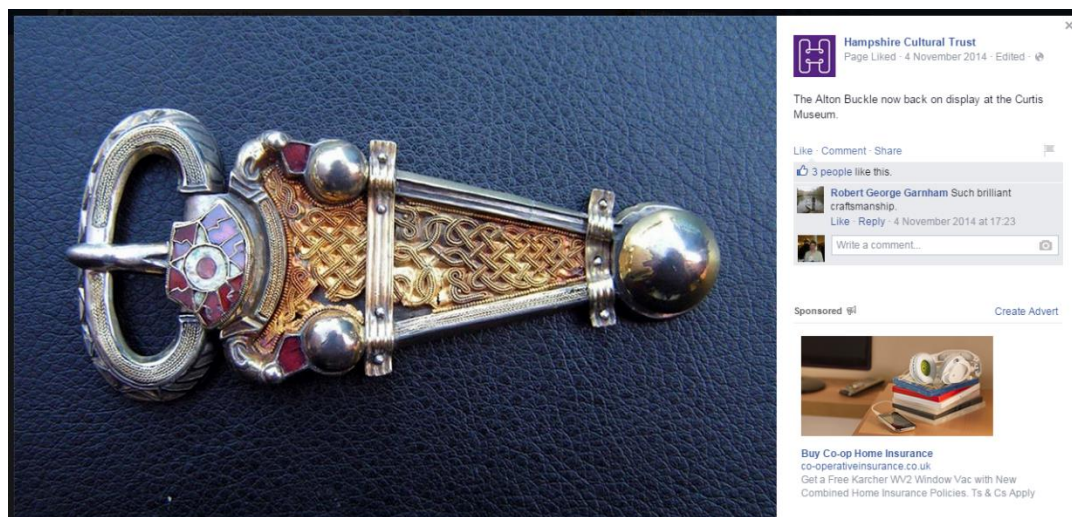


Figure 52 – “The Alton Buckle now back on display at the Curtis Museum” (HCT, 2014c).

The potential of the use of media commons by local museums has been established in the thesis as have a potential positive influence on individual experience with collections. However, there is less information available about the use of commons to encourage social experiences as seen from the MAA’s experiments with staging social experiences with objects. The Rijksstudio is an instance of a cultural heritage organisation encouraging creative use of digital content, but even this project was not able to incorporate much social interactivity.

Sharing objects through media commons can lead to civic participation however (Zhang & Chia, 2006), and this in turn has an impact on individuals’ sense of community. Hackathons are a well-researched (Santo, 2011; Costanza-Chock, 2012) example of this occurrence. Although hackathons do not tend to have a high success rate in the production of tools as outputs (Irani, 2015), they do evidence success in encouraging participation in problem-solving (Almirall, *et al.*, 2014), and this can lead to longer-term partnerships and therefore solution identification. This event-based approach to encouraging re-use of digital content has been adopted in the museums sector, and there are notable instances of this in the UK (Culture Hack, 2013; Horniman Museum and Gardens, 2013; THATCAMP2013, 2013).

Q.3.1 Proposal: Leveraging national events to develop skills for data sharing

There are several other higher quality images of the Alton Buckle that occur when searching for the item online. These are almost all photographs of replica objects, created by jewellers. This signifies that there is an interest in reuse of the object, and HCT could contribute to future replica development by making available additional high quality photographs of the object for reuse by artisans. In doing this, HCT is making a contribution to the expression and development of skill for individuals making use of images of artefacts as resources for product development.

For local museums, there would be little likelihood of organising an event such as a hackathon, but there is an opportunity available to act as a broker for datasets which could be used by hackathons. Culture Hack is a support network and events programme and recently developed a toolkit (2014) designed to support the implementation of hackathons. Advice within the toolkit on data preparation is minimal (Culture Hack, 2014: 39), and is aimed at readers with an intermediate to advanced understanding of open licensing and data formats. This would not be appropriate for HCT to use as preparation for adoption of hackathons, but there are approaches that could be used available, in particular the Dutch Heritage Innovators Network's Open Cultuur Data community (2014) has experimented with several approaches to enabling heritage professionals to create open data and has identified that online resources are an essential resource for museums in enabling creation of open data (Baltussen, *et al.*, 2013) which can be used in events such as hackathons.

Q.3.2 Evaluation

Both the CoA and the DCO are keen to find ways to reuse already existing digital images of objects and archival materials, and are interested in the potential of encouraging external parties to use this content to produce new views into the collections:

“But we’ve got thousands and thousands of images. A lot of bird ones. But apart from that, we’ve also got ones that were taken by the professional photographer who used to work here and, you can moan about the backgrounds, some of us do, but they’re not bad. We’ve got thousands – well I’ve uploaded fifteen thousand and they’re okay. They would do. They’re our images.” (Ellis, L. 27th June 2015, *pers comms.*)

Q.3.3 Evaluation summary

Positive impacts:

- Keen to find ways to reuse existing digital images and archival materials
- Encouraging external parties will result in knowledge building around the collections

Q.4 Objective: Networks for professional skills development

There has been considerable interest in recent years in MOOCs for professional skills development (Daniel, 2012; Stephens & Jones, 2014), but participatory skills sharing approaches to these environments have been slower to develop (Ahn, Butler, *et al.*, 2013). MOOCs could be utilised as a social platform for skills development, and this is a potential area in which local

museums could lead the way. Current digital networks for skills development that make use of the Internet are focused on longer-term communication, such as email-based lists, and there are some groups that make use of social media forums such as the MCG's presence (2014) on professional social network LinkedIn (2013).

Q.4.1 Proposal: Innovating with collaborative networks for digital skills development

As a response to Sanderhoff's recognition of the necessity for DIY Learners (2014) in the museums sector in order to develop necessary skills, professional support networks could be encouraged by local museums such as HCT to develop centrally designed participatory MOOCs. HCT could investigate the potential interest amongst volunteers and staff members in a MOOC that aimed to provide introductory level knowledge about online curatorial practice.

Q.4.2 Evaluation

Both the CoA and the DCO were positive about the use of social media as a space to support the development of skills for HCT staff. The CoA felt that he would use a space online to discuss social media use within the organisation:

"Well I would, yes. Because I think overall there is a generation thing because I think a lot of people working in – perhaps on the collections in the museums side are in the older generation, and they might say, oh well yes I use Facebook to keep up with the kids and that sort of thing, but, I'm not as easy, not as home with it as the next lot coming up, and after that, well you know if you start using it when you're you know before the age of ten there's going to be amazing capabilities then I think." (Allen, D. 26th June 2015, *pers comms.*)

He agreed that the provision of a space within which staff could support one another to develop a more nuanced understanding of the different social media platforms would help people to gain more skill in managing the separation between personal and professional use of online tools. He was particularly concerned with the need to better understand the effect of social media on professional reputation:

"Well the warning noises are always that anything that you put on any platform is probably going to be there for those who want to see it. So you could easily tarnish your image or whatever couldn't you?" (Allen, D. 25th June 2015, *pers comms.*)

The DCO was interested in the idea of using social media to share skills and to encourage the development of curatorial practice through online collaborative courses.

“You could see conversations going. That about discussing ideas. You know, I’ve got this idea for – a new exhibition – what do you think? And people contributing.” (Ellis, L. 27th June 2015, *pers comms.*)

But she was worried that a new social media platform might not be appropriate as it would not get enough buy-in from staff:

“But you know it’s really difficult to as I say, get non-, just get the ordinary staff if you like – and then people that aren’t you know happy to use social media – ” (Ellis, L. 27th June 2015, *pers comms.*)

The DCO did not believe that the technology would be the barrier to encouraging staff at HCT to share information through a social media platform, she felt instead that current organisational practice would mean that people were less likely to use new tools:

“I don’t know. It’s not the technology, it’s the mind-set of – you know. They’ve embraced email, and that’s sort of as far as it goes. You know.” (Ellis, L. 27th June 2015, *pers comms.*)

However, a more familiar platform may be more successful as it would fit into already established behaviours for Web-use.

The DCO did feel that social media could speed up some processes within HCT, in particular, she identified that communicating through social media could make connections between people who were physically separated:

“No, exactly, but when you’ve got, you know, we’ve got headquarters here. And there’s quite a few of us here. But we’ve got all the other sites, and there’s people working across the region. You know, it would be a good way of sort of instead of having to drive all the way up and down, you know if you did some of the things online.” (Ellis, L. 27th June 2015, *pers comms.*)

The DCO believed that the best way to implement a new approach to using social media to communicate within the organisation would be to begin with a small team using the platform, and then sharing successes from that in order to provide positive reasons for uptake. But she expressed a concern that initial participants would need to maintain involvement. There is an attitude here that the social media platform use could be organisation- rather than user-driven:

“But they have got to commit to it, and commit wholeheartedly to give it a go and see how it can work, and stuff like that.” (Ellis, L. 27th June 2015, pers comms.)

In order to encourage use of a social media platform that is organisationally supported, the potential usefulness of such a space would need to be presented in such a way that it was endorsing the use of social media for sharing positive stories and for building good will and support internally. This would mean that a group or page would need to advertise its official links in order to ensure that content was appropriate and that participants were safeguarded.

Q.4.3 Evaluation summary

Positive impacts:

- Provision of online space for development of skills through experience sharing
- Improve connections between physically separated staff and collections
- Must be organisation as well as personally driven
- Needs to evidence usefulness from the outset

Concerns:

- Reputation management
- Organisational practice a barrier to take-up
- Lack of familiarity with platform

Q.5 Objective: Supporting skills development

It is essential that awareness of increasing skills gap be promoted in the museums sector, with a particular emphasis on improving digital skills in local museums. At HCT the short-term presence of graduate interns has had a positive impact on technology use, but this has been temporary due to lack of access to training post technology implementation.

Q.5.1 Proposal: Engaging with national events on social media to provide experience with tools and platforms

Additional opportunities for at-work training through experiences of social media need to be identified. This could be implemented by encouraging HCT-wide uptake of social media tied into national or international events, such as the Day of Archaeology or the #AskACurator (2014) day. Supporting these initiatives on an event-basis reduces the pressure on staff members to find time to learn new skills for social media use. Instead, through a day dedicated to experiencing a particular tool or platform, skills swapping can occur in order to improve the use of that tool more

broadly within the organization. External specialists could be informed of the organisation's intention to engage with the event, and may be able to offer remote support.

Q.5.2 Evaluation

Participating in the Day of Archaeology by writing a series of blog posts which focused on the archaeology collections volunteers provided a real-world example of using blogging to share different types of content for the CoA. The event provided a focus to represent online the valuable contribution made by volunteers to HCT. The CoA felt that much of the value of the exercise had been in the creation of new digital content, in the form of images:

"Because you know, you took lots of great images there. That was brilliant." (Allen, D. 26th June 2015, *pers comms.*)

The CoA felt that the blog posts were a new way to present the archaeology collections online and put this down to individual effort:

"Well that was a particularly, exceptional one, because of – sort of - the energy you put into it I think. The sort of gusto you showed." (Allen, D. 26th June 2015, *pers comms.*)

However, much of this was instead due to technical know-how, which greatly reduced the perceived required effort. The CoA wants to see evidence of return on investment, and this would be an important follow-up to taking part in an event such as Day of Archaeology or #AskaCurator day:

"From that I do wonder then, it would be really nice to know how it was received in the wider world. Whether people fastened on to it." (Allen, D. 26th June 2015, *pers comms.*)

The CoA felt that a model of intensive engagement with social media based events was a potential direction. He also highlighted the issue of keeping up with social media events like the Twitter based annual #AskACurator day, which is run by SUMO marketing organisation which has a high level of technology skill and is supported by several cultural heritage professionals with well-established Twitter profiles:

"Yes, I'm sure that's something that will develop. You know a more savvy use of it, a more open use of it. You know using the benefits of it, in a way that we skate around at the moment. But you know I'm sure that's why, with the HER, they've put these atlases up there because they feel they are, feel they ought to you know, but it looks very clunky, and

I'm thinking, and yet the information in there's just ok, you know." (Allen, D. 26th June 2015, *pers comms.*)

The CoA is voicing a concern for the need to meet expectations of users, and this stresses the importance of using established social media tools and platforms so that the user experience of content from local museums is wrapped in the aesthetic of particular tools. This will provide users with an online experience of local museums content that is familiar. From this, local museums can link to additional digital content that may not be so able to live up to expectations of user interface design, due to restrictions such as content management systems' built-in styles. This pathway to information will result in the initial presentation of content through social media improving attitudes to a museum generally rather than falsely raising expectations.

The DCO is less enthusiastic about the use of global social media based events to encourage learning within the organisation. Reflecting on the use of Twitter as part of #AskACurator day when working at a different museums service (Wolverhampton City Council) as a Digital Projects Officer:

"When we tried it at Wolverhampton we struggled because the questions that people were asking were either not relevant to our collections or were very generally and it was difficult to answer them." (Ellis, L. 27th June 2015, *pers comms.*)

However, this does not mean that event-based social media use would not act as a springboard into encouraging the use of social media within the organisation. Instead, the DCO's reaction illustrates the importance of appropriate identification of events to participate in. She describes her experiences of #AskACurator:

"And you know 180 characters, in a series of tweets, you know it didn't work for us when we tried it... Twitter is very, I think you need to have experience of Twitter behind you, before you can use it for something like that." (Ellis, L. 27th June 2015, *pers comms.*)

From this, it seems that there is an opportunity for local museums to develop examples of the positive potential in engaging with events such as #AskACurator day through leading on the evaluation of learning experiences with tools like Twitter and the effectiveness of event-based interaction for breaking down barriers for professional and personal use of social media.

The DCO believes instead that the way to establish social media within the organisation is to develop a training programme that introduces specific tools, but that does not specify scenario use for those tools:

"I think giving regular training. Short bursts of training. Saying this is what is out there, giving examples, could be really good. Some people will latch on to it, and others won't."

(Ellis, L. 27th June 2015, *pers comms.*)

Q.5.3 Evaluation summary

Positive impacts:

- Creation of new digital content through these events is valuable
- Would provide a focus for the contribution of volunteers
- New way to present the archaeology collections
- Uses existing infrastructures
- Improves the link to national initiatives
- Raises profile of organisation to a wider audience
- Improves digital skills amongst staff and volunteers
- Way to free up activities online from existing restrictive Web resources
- Increase transparency of activities to involve volunteers in decision making

Concerns:

- Need to see return on investment for time-intensive activities
- May not meet expectations of users
- Identification of appropriate events may require time
- Would need training programme for informed use of tools

Q.6 Objective: Expressing curatorial skill online

Curators at HCCAMS were uncertain about the original aims of the *Heritage100* project and were only involved in the creation of content to a limited extent. Curators were asked to submit images and text about objects and these were then added to the website by representatives of Future Creative, the social enterprise commissioned to head up the work. There is therefore a lack of curatorial skill expressed through the *Heritage100* website, as little narrative is provided to make connections between objects and context. Objects are organised by the museums within which they are housed, but this artificial context displaces the objects from the heritage of the region that they have been selected to represent.

Identifying way for expressing curatorial skill online is a major challenge for local museums, as evidenced in Chapter 6 of the thesis. Local museums are ideally situated to push forward the expression of curatorial skill on the Web. Social media presents a potential platform for encounters with local museums' collections, this is because, as evidenced in Chapter 8 of the thesis, local museums have the potential to create third place (Oldenburg, 1999) within social media which supports community building and contributes to overcoming the major barriers to

flexibility of identity expression within social media. Retronaut illustrates the positive impact of contextualising information through digital storytelling, but supports exclusionary historical trajectories by engaging in mono-vocal presentations of the past. Local museums can respond to this issue by shaping the Web through the provision of content that represents the pluralism of contemporary society.

Q.6.1 Proposal: Experimenting with open licensing through multi-platform narratives of digital surrogates of objects

Images of selected objects could be digitised under open license and then shared via social networking platforms with an overarching narrative to encourage reuse. This replicates the model of exhibitions, which is familiar to staff in local museums, but translates the format, providing an additional stage from which local museums can work. This kind of content sharing can lead to dialogue with users, and input into areas of interest in relation to the collections.

Q.6.2 Evaluation

Replication of the exhibition model within social media has a certain appeal for the CoA as it represents a familiar methodology for communicating with audiences. However, if meaningful engagement between HCT and social media users is going to take place, the exhibition model must be augmented to include dialogue.

The CoA's comments about their current experiences of social media use, highlights a need for research into the impact of social media on organisational boundaries (Krogh, 2012):

"Yes, I mean that, those avid Facebook users who want to say how they feel in the morning, or what they ate for lunch, or what the dog's doing in the afternoon, yeah, that's right." (Allen, D. 26th June 2015, pers comms.)

The CoA is enthusiastic about starting up conversations with new communities of interest through the Wordpress blog, and agrees that using the blog to provide initial narratives around images of objects could be a way to inspire new uses of digital content:

"It could certainly be part of it. Yeah, I think the blog as its evolved is really just like, snippets of archaeological history really, whether it's they're actually focused in on types of you know, particular periods or types of material of whatever, it could certainly go that way, or have, you know – and I think, you know, but should it be more structured, or would it need to be?" (Allen, D. 26th June 2015, pers comms.)

The structured approach that the CoA is envisaging is based in the print-format of a magazine, with topical articles:

“So in other words, if you have a proper magazine, then you’ve got an editor doing, or a deputy editor doing the sports bit, or the crossword or whatever, why not have an archaeological crossword on it?” (Allen, D. 26th June 2015, *pers comms.*)

Contextual information is a major way to facilitate knowledge building around collections, as the CoA comments:

“Yeah, and I think the whole thing about the collections is, where can I read more about it, and is what I will find there correct? Has it been superseded, and so on.” (Allen, D. 26th June 2015, *pers comms.*)

However, museums generally are falling behind in the expression of curatorial skill online. The DCO highlights this issue in her comment about a blog that she admires:

“I think if you look at the Powerhouse [Museum] blog (2014) and things like that, I think that they’re very good, because you know, they’ve got staff, just talking about what they do, and what they find interesting about their passions.” (Ellis, L. 27th June 2015, *pers comms.*)

Q.6.3 Evaluation summary

Positive impacts:

- Replication of curation model is familiar and therefore perceived as easier than alternative suggestions
- Could start up conversations with new communities of interest
- Could encourage new narratives around objects
- Make use of the connectivity potential of the Web, making connections with existing online content and concepts
- Could enable experimentation with amateur curation online

Concerns:

- Dialogue may result in superfluous information linked to collections

Q.7 Objective: Connecting external sources to collections data online

HCT could develop a methodology to make use of digital assets such as *Soldier’s Journey* and *Heritage100*. In the instance of *Heritage100*, there is currently a selection of several archaeology

objects existing as digital surrogates online that are not currently curated. Analysis of the content on the website could inform future directions for content creation. On the page for a silver coin (Heritage100, 2013c), Disqus comments give information about personal interest in the artefact, one person comments:

“What a fantastic find. Love to see it and touch it. Mike Horner Winchester.” (Heritage100 Roadshow, 2012)

Intimating that they would like to see the object on display, whilst another asks:

“how many contemporary images of King Alfred are there in Winchester ?” (Queen Victoria, 2012)

Content from the Heritage100 page could be represented in a way that expresses the complexity of curatorial skill, whilst also encouraging user-generated content that is submitted to augment content that is lacking in context. Requests for information to improve *Heritage100* information could be directed to curatorial staff at HCT, but also to museums professionals outside of HCT who care for analogous objects. In many instances, this content may already exist online elsewhere.

Q.7.1 Proposal: Linking external contextual data to object data using metadata indexes

In the example of the King Alfred coin (2013c), HCT could link to information from the Portable Antiquities Scheme website for which photographs of objects are reusable under Creative Commons License and improve the record of the coin by providing more instances of King Alfred appearing on objects (see an example item: Williams, 2011). This link online between two similar objects could be created by the use of a centralised location for referring to both, such as the HCT website, or a blog post correctly tagged and with good metadata, or could be created by referring to the link in several social media platforms in order to increase saturation. Building on this, staff at HCT could use the surrogate object on *Heritage100* to link to records relating to King Alfred on Europeana (2014) as this would include many objects relating to the topic from other collections, in this instance, the British Library, EH, Imperial War Museums and the Wellcome Library.

Q.7.2 Evaluation

The DCO did not feel that adding objects to centralised metadata indexes was a potential activity, this was mainly due to the ending of Culture Grid and the fear of lack of longevity of resources

such as Europeana. There was also a perceived lack of time in making connections between objects held in the HCT collections and objects held elsewhere that could be accessed via such indexes.

Contextual information can be provided through existing social media accounts such as the *Hampshire Archaeology* blog. The attitude of the CoA when considering the potential for adding links to articles that send readers to resources such as Wikipedia for contextualisation is that individual's could make their own decisions about information discovery online:

"I think it's up to the reader, the enquirer, to work it out for themselves, or ask, you know, or to join a sort of chat forum and say, you know, 'isn't it amazing what they're saying about Stonehenge?', you know, 'well they said about Glastonbury this week?' They debunked this forty years ago, why are they picking it up now? All shades of opinion up then, and you have to choose which you think it's the best amongst all the crack stuff, you know?" (Allen, D. 26th June 2015, pers comms.)

However, local museums can contribute to supporting the development of skills for constructing judgements about the dependability of online information as this will increasingly be a necessary skill.

Contributing to the shaping of the Web can be as simple as providing images for reuse online. HCT could identify digital content that can provide a more nuanced narrative of the communities of Hampshire. This digital content already exists but is currently not particularly findable. For example, as part of the *Heritage100* programme, a workshop was held with Nepalese Help (Heritage100, 2012c), a charity supporting integration of Nepalese people in Hampshire (Nepalese Help, 2014). The short post about the event describes how a participant brought a knife to show, but knew little about its history. Supported by photographs from the event, we read that another participant identified the knife and explained how it was used, and another gave a practical demonstration of use in warfare and also described other uses for the knife including as a kitchen implement (Heritage100, 2012c). Objects from the collections that are representative of the interconnections between the many communities in Hampshire over time.

HCT has a few artefacts from Basing House that are currently on display to illustrate the grandeur of the Tudor period of the site. These artefacts are also representative of the global scale of trade during the sixteenth century in Hampshire. The CoA could photograph these artefacts and digitise associated research materials in preparation for sharing online. These could provide a case study for exploring the potential of opening up collections. This would include investigating potential

licensing and adding images to media commons, as well as providing an initial narrative for the content through the Wordpress blog. The article could emphasise that the post serves as an opening for a discussion on the identification of analogous objects in the collections, in order to encourage decentralised, iterative interpretation.

Q.7.3 Evaluation summary

Positive impacts:

- Contextualisation could enable individuals to make their own decisions about knowledge building online
- Would support individuals to develop skills relating to judging the reliability of online information
- Could shape Web by improving coverage of a topic online
- Could make content more findable
- Could encourage interconnections between communities

Concerns:

- Longevity of external resources; the fear of creating 'dead links'
- Lack of time available to identify connections

Q.8 Response to evaluation

There is also an issue in dealing with the complicated copyright ownership of objects held in museums collections, although for local museums this is less problematic as many more items are permanently transferred to museum ownership. However, at HCT there are several archives in the archaeology collections that are on loan and rights management would need to be considered in the creation of digital surrogate objects. Across the sector, museums are struggling to find a balance between protecting copyright of artefacts often under third-party ownership (Dietrich & Pekel, 2012), whilst also creating opportunities for access of collections that are as open as possible. Initiatives to engage with open data are finding that copyright issues are taking precedence over participatory design goals (Marttila & Hyyppä, 2014).

There is benefit to be gained in raising awareness of organisations' brands through opening up collections online that is not a direct revenue gain but is associated with brand equity. Museums are increasingly espousing brand equity through online activities (Evans, *et al.*, 2012), but the methodology for evaluation of brand development activities is less developed in the sector (Zenker, 2014).

But for local museums there is still little evidence base for the benefits of opening up collections on the Web. At a local level, there is potential therefore for local museums to contribute to the open data agenda by developing ways to engage with open data and evaluate the impact that it can have on things like regional economic development and local identity building. The Rijksstudio with Etsy collaboration provides a model for encouraging open data reuse in creative ways, and can be adapted by local museums to experiment with the impact of local museum collections on arts practice at a local level. Hampshire is a county with a vibrant community of arts locally and there is a well-established network of craft-based events that could be stimulated by HCT's collections to produce heritage-inspired products.

Tailoring content so that it refers more explicitly back to collections would increase awareness of the rich variety of artefacts and archives cared for by HCT, it would also ensure that social media content is more varied and therefore more engaging for followers. The *Hampshire Archaeology* blog facilitates this as it provides a mechanism to review the archaeology collections and add value to knowledge about the collections through the volunteer created blog posts.

The concerns highlight the need for better expression of curatorial skill in relation to sharing objects through social media. The archaeology collections volunteers could write short extracts for social media platforms that picked out specific artefacts or archival materials that were included within *Hampshire Archaeology* blog posts. Signifiers to remind people of the origins of an artefact would improve brand equity, and this could be achieved through a HCT archaeology collections branded scale to be included in all photographs of images. This visual sign would encourage viewers to associate objects with the HCT collections.

The issue of ensuring an iteratively developed website maintains relevance as user expectations change over time is common amongst local authority websites (SOCITM, 2014), which is the major online platform for many local museums. This is exacerbated by the lack of centralisation within local government for delivery of online services (Wilson & Game, 2011: 13) and failure to recognise the complexity of the requirements of stakeholders as well as of the organisational restrictions (National Audit Office, 2013: 6-8).

Social media can be used as an interim solution to both the DCO's frustrations and the collections specialists' objections, to bolster the online presence of HCT and to work around the restrictions of the HCT content management system on which the website is based. However, there are risks associated with implementing social media as a way to communicate organisation messages due to the self-centred individuation of social media (Fenton & Barassi, 2011) as outlined in the thesis.

This individuation can be reduced by involving volunteers in the use of social media to open up a view onto heritage creation activities being carried out at HCT. The CoA is keen to find ways to better present: “*the personal experience of the volunteers*” (Allen, D. 5th July 2015, *pers comms.*). HCT can improve the way that it supports volunteer development by improving reportage on volunteer experiences through enabling reflexivity of activities via social media.

The Wikipedia editors are driven by personal motivations to add content to Wikipedia such as self-development or reputation building (Oreg & Nov, 2008), but are considered to be quite social (Coleman, 2010) in their approach to content creation. This is expressed not in the analogue world, but digitally through communication within the Wikipedia platform (Iosub, *et al.*, 2014). Wikipedia has high user retention, but this is not conducive to high-quality articles, in fact, research has found that a greater diversity in participation lengths would improve content (Ransbotham & Kane, 2011), and there is therefore an argument for local museums not only to support existing Wikipedia editors, but also to enable the temporary engagement with Wikipedia for people who may not continue to edit content longer term.

Wikimedia requires that media content used within Wikipedia articles, and although most research into the potential of engaging with Wikipedia users has focused predominately on larger national museums (Phillips, L.B., 2013) there is a clear advantage for local museums in providing content that is useable. This means that there must be a drive to reclassify digital content under appropriate license.

One way to contribute to the production of knowledge through Wikipedia that has been under signified by the museums sector is the provision of other kinds of digital content for reuse. There is an emphasis within projects in the museums sector on images, but local museums can provide text and supplementary data that can be used by Wikipedia Editors as evidence within articles. For instance, the articles being produced for the *Hampshire Archaeology* blog could be considered under Wikipedia’s guidelines (2014d) to be a reliable source as they are written by professionals in the field, but as they appear on a blog, many Wikipedia users would be wary of citing them, as this is a type of reference that is discouraged. In order to support the reuse of articles, HCT could trial the use of a statement for Wikipedia Editors that outlined the suitability of articles on the *Hampshire Archaeology* blog as a reliable third-party publication. Clearer links back to the HCT main website, and a detailed profile of the qualifications of the CoA as the editor of the blog would further support this case.

The guidance from Wikipedia is limited, but points to the community being generally receptive to edits from curators as long as they contribute in an individual rather than institutional capacity (Wikipedia, 2014e; 2014f). The DCO felt that collections staff were unable to engage with Wikipedia due to programming commitments. But there is the potential to build Wikipedia editing into strategic goals for exhibitions programming. The planning phase for the next Big Theme is currently underway at HCT, and Wikipedia content could be a major contribution of this future programme if included at this early stage.

There are several opportunities for curators and other specialised collections professionals to engage with Wikipedia, but these are difficult to identify. The WikiProject, a space in Wikipedia for the collaborative management of topical projects (Ransbotham, *et al.*, 2012) for museums (Wikipedia, 2014g) highlights articles considered to be of good quality (Liu & Ram, 2011) such as the National Trust-run Holy Jesus Hospital in Newcastle-upon-Tyne (Wikipedia, 2015b), and these could be highlighted for HCT staff interested in Wikipedia. However, the WikiProject focuses on the creation of articles *about* museums, and although the guidance is very useful, there is little advice for the production of articles *by* museums representatives but on other topics. HCT could be at the head of a project to support museums representatives to contribute to Wikipedia, and this could begin with the archaeology collections as there are many easily identifiable existing articles to which the collections are relevant.

Q.9 Open museum

Q.10 Objective: Iteratively moving towards open licensing

HCT does not currently have any CC licensed or Public Domain digital content. There is a need to collect information about licensing options and to identify service user needs. As the potential users are not currently perhaps engaging with HCT either digitally or in the analogue world, there is a requirement to design a methodology for information-finding on this topic.

Q.10.1 Proposal: Enable creative reuse of content by inviting community feedback

The Wordpress blog and the HCT Facebook page could be used as a way to share a series of posts that the CoA could write which highlighted potential opportunities for creative reuse of content from the archaeology collections. These posts could be aimed at particular communities, such as teachers, locally based artists and craftspeople (particularly those specialising in historically and archaeological reconstructions), re-enactment societies, and art groups.

Each post could suggest the reuse of content and provide some examples of artefacts or archival materials that could be shared through media commons under the appropriate open license. The posts could aim to collect responses from these communities in order to establish whether there is a perceived need for such digital content and to identify the most appropriate license for content such as images. This is because artists may require commercial use of digital images of objects, whereas teachers will need only to be able to create derivatives for use. This is inspired by Art Stories and the API development described in Appendix P.

Q.10.2 Evaluation

It is clear at HCT that more research needs to be done to understand reactions to social media use to date. The Marketing Team is currently carrying out an audit of existing social media accounts, in order to centralise control over the user accounts, active and dormant, and to streamline the use of social tools and platforms. However, in addition to this, the content of those accounts needs to be analysed in order to gain a more complete view of the current climate within social media for HCT. This evaluation would improve how HCT plans future developments on social media, and would make a significant contribution to current attitudes about social media within the organisation. To date, the successes of social media have not been well-reported within HCT. Basic statistics relating to social media use are reported internally, but no qualitative reports are made. This has led to a lack of awareness across HCT of the positive benefits that social media is already having internally and externally.

In addition to this, stakeholders could be contacted through an organisation-wide effort to promote digital content that outlines a plan for openly licensing collections content, in order to gain a better picture of the possible reception of open content within the current community of HCT users as well as potential new service users, such as open content communities like LODLAM and OpenGLAM. The DCO was uncertain what the benefits of consulting with communities, commenting:

“But why do you have to go and ask and all the rest? Why don’t you just go and do it?”

(Ellis, L. 27th June 2015, *pers comms*.)

Whilst this is a reasonable point to make, it seems from research at HCT that this positive attitude would not be enough to ensure the support of other staff and availability of resources, and so instead building an argument for a need for open content would be more likely to lead to the implementation of open data related projects.

At HCT currently there is a general attitude of sharing museums' collections in line with the museums sector more broadly. However, the attitudes in relation to digital content are divergent from this and this means that moves to adopt licenses that encourage reuse has been blocked by conflicting views on the potential of digital content online to bring in revenue to the organisation:

"Do you mean CC0? Just because we still have a desire to make money. I tend to put it up as CC non-commercial, and I usually put attribution as well. Although that's not so important as the non-commercial. And also, we tend to, because of this, I suppose it's that discussion that needs to be had whether there's money to be made in selling images. And we do sell images. Not big or that, but we do sell them." (Ellis, L. 27th June 2015, *pers comms*.)

As evidenced in the accompanying thesis, museums have failed to evidence any notable increase in revenue from charging for digital collections content, such as images of artefacts. But, the DCO believes that the major issue for this is the staffing costs associated with digitisation. She feels that, if this can be incorporated into a separate programme of digitisation of collections then there may be an opportunity to make money from digital images of objects from HCT collections:

"But if it can drop out of the bottom of – well you're already digitising – you're already doing stuff, and you know, because it is quite easy to put them on these image sale websites, then you can just load stuff up, and it doesn't actually take you much time, then that can be attractive. Because once it's done, it just sits there. You might only sell that image once in ten years, but once it's done it's just there." (Ellis, L. 27th June 2015, *pers comms*.)

The problem with this attitude is that it reflects a disparity in attitudes to collections in the analogue world and collections that are digital. The DCO's belief is that the organisation as a whole approaches the online activities of HCT as a method for revenue generation. This is in opposition to the use of online assets for heritage value generation amongst users:

"We want to get our stuff out there, we want people to see it, we want people to use it, but we are still a ... manager of a collection, but you know there's a big, big desire and need to make money. So it's a big tension." (Ellis, L. 27th June 2015, *pers comms*.)

The DCO reflects a missed opportunity across local museums that the Web is currently seen as a way to develop new audiences with global coverage:

“Basically as much as we like to think otherwise, our audience is local, and you know that might mean that we go over to Berkshire, with Basingstoke and stuff like that, but you know we are still a local audience, people don’t come from America to visit one of our museums.” (Ellis, L. 27th June 2015, pers comms.)

This approach has meant that digital content derived from the collections tends to focus on having global and therefore universal appeal, instead of being designed for local impact. The assumption that opening up collections online will not impact on a local level is a key challenge for local museums’ adoption of open licensing or of increased opening up of collections data more broadly on the Web. The open government agenda is evidencing the potential impact of open data at a local level although evaluation is in its infancy due to the newness of the movement (Borzacchiello & Craglia, 2012). But for local museums there is still little evidence base for the benefits of opening up collections on the Web, as the DCO imitates:

“Yeah, but there’s still no evidence is there that, by getting your brand out there, you actually get more bums on seats” (Ellis, L. 27th June 2015, pers comms.)

At a local level, there is potential therefore for local museums to contribute to the open data agenda by developing ways to engage with open data and evaluate the impact that it can have on things like regional economic development and local identity building. The Rijksstudio with Etsy collaboration provides a model for encouraging open data reuse in creative ways, and can be adapted by local museums to experiment with the impact of local museum collections on arts practice at a local level. Hampshire is a county with a vibrant community of arts locally and there is a well-established network of craft-based events that could be stimulated by HCT’s collections to produce heritage-inspired products. The DCO was reticent about the potential of engaging with creative practitioners at a local level because of an assumption that local museums would be competing with globally reaching online resources, such as Amazon:

“It’s just not the resources to go and contact these people, and work with them. Just putting stuff out there doesn’t necessarily get it seen does it? I mean we all know that you know, museums’ share of the Web is, I can’t remember Jane Finniss’ stats, but it’s less than one percent isn’t it? Yeah, and that even includes the British Museum and the big guys, you know, they’re not you know, compared to places like Amazon.” (Ellis, L. 27th June 2015, pers comms.)

However, this discounts the strength of local museums as trusted organisations that can provide online experiences with digital content relating to heritage that are safeguarded from

unpredictable sources. Local museums can offer a safe place for information gathering that is not intended to replace resources such as Google, but that works with such sites to provide digital content that is of high quality. The old adage ‘quality not quantity’ could be at the heart of approaches by local museums to create content for sharing on the Web. The DCO agreed that focusing on search engine optimisation and engaging with existing resources like Flickr would be a way to encourage reuse of HCT collections data.

Q.10.3 Evaluation summary

Positive impacts:

- Would give a more complete view of the current attitudes to use of social media at HCT
- Could improve future developments
- Positive use stories could improve attitudes to technology in the organisation
- Would build an argument for an open agenda within the organisation
- Could provide picture of possible reception of open content by current audiences and new audiences
- Could improve brand equity
- Could lessen tension between aims to raise revenue generation and aims to improve access to collections
- Could enable leveraging of the opportunity of communicating with global audiences
- Could contribute to understanding about the links between sharing content and ‘bums on seats’
- Creative reuse of collections could contribute to regional economic building and cultural capital building
- Could re-centre museums as places of trust

Concerns:

- Prolongs the planning period
- Would be competing with global-scale corporations like Amazon

Q.11 Objective: Signposting archaeological content more effectively

Statements on the Facebook page for the HCT for example are often cryptic in their attempt to be conversational, and the potential response is not achieved. For instance an image of a Roman mug is accompanied by the comment:

*“What’s on your mug? Logos on cups are nothing new. Check out our latest ARCHAEOLOGY blog for a cuddly Roman endearment
<https://hampshirearchaeology.wordpress.com/>” (HCT, 2014b)*

Shown in context in figure 53 overleaf.

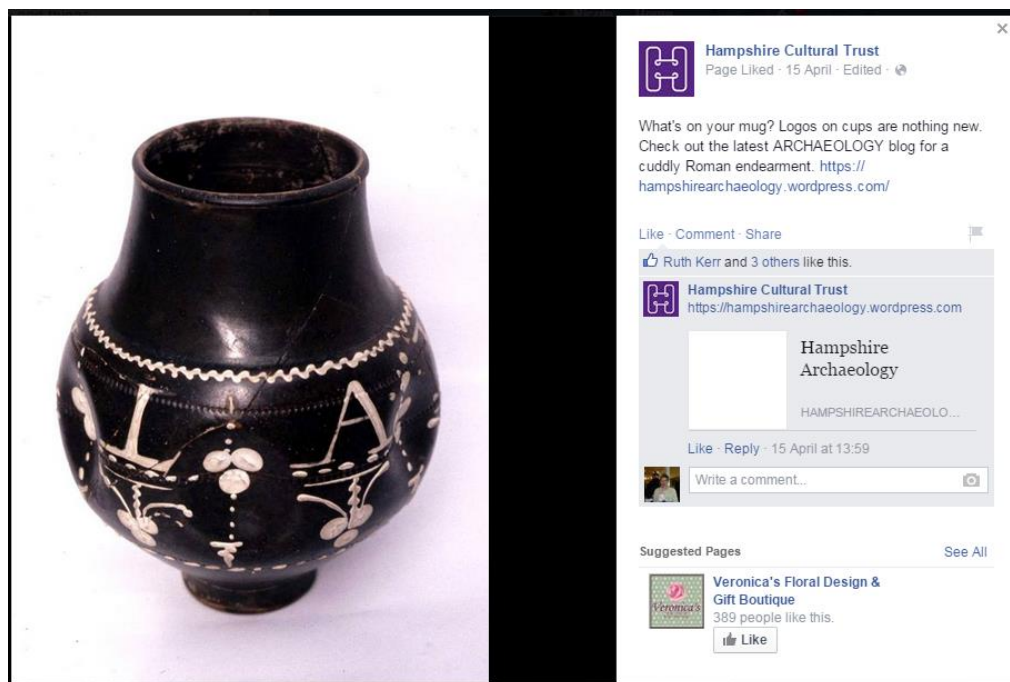


Figure 53 - "What's on your mug? Logos on cups are nothing new. Check out our latest ARCHAEOLOGY blog for a cuddly Roman endearment <https://hampshirearchaeology.wordpress.com/>" (HCT, 2015b)

There are no responses to this comment, but it seems that this may be a request to submit images of personal mugs. This exercise could have resulted in some user-generated content for HCT to re-use in other contexts, or to inform the collections.

There is one venue within HCT that has recently begun to use Facebook, and much of the content on the central account comes from the work of this venue. The Red House Museum has had a Facebook page (2013) for over a year and has made good use of the platform to share information about events and programming. The curator at the venue, who manages the social media accounts, has been increasingly posting visually engaging content, using behind the scenes photographs of exhibition installations and event photography to enhance the visual appearance of the page and to encourage feedback. In October 2014, responses to photographs and comments jumped from an average of 4-6 likes to sometimes achieving over 40 likes and several comments and shares, with videos proving the most popular type of content, in line with research around viral marketing (Berthon, *et al.*, 2011; Freeman, *et al.*, 2015). This change in response is due to the effort of the curator to engage with the platform and their learning curve is apparent on the news feed of the page.

Content reused from the Red House Museum page by the HCT page is notable as it is not an advertisement for an event, but instead gives some information about some objects held in the collections, as part of a description of a photograph. The post below combines a call to action for the viewer, to attend an event, with an insight into objects cared for by HCT:

"Fancy a trip out this weekend? Why not visit our Mummy Returns exhibition at the Red House Museum. Among the displays we have these five scarab beetle amulets! They are a symbol of the sun-god Khepri and a symbol of re-birth. The central scarab is inscribed with the cartouche of Pharaoh Amenhotep II. Find out more at: <http://bit.ly/1Fj20Gd>" (HCT, 2015c).

See figure 54 below for context.

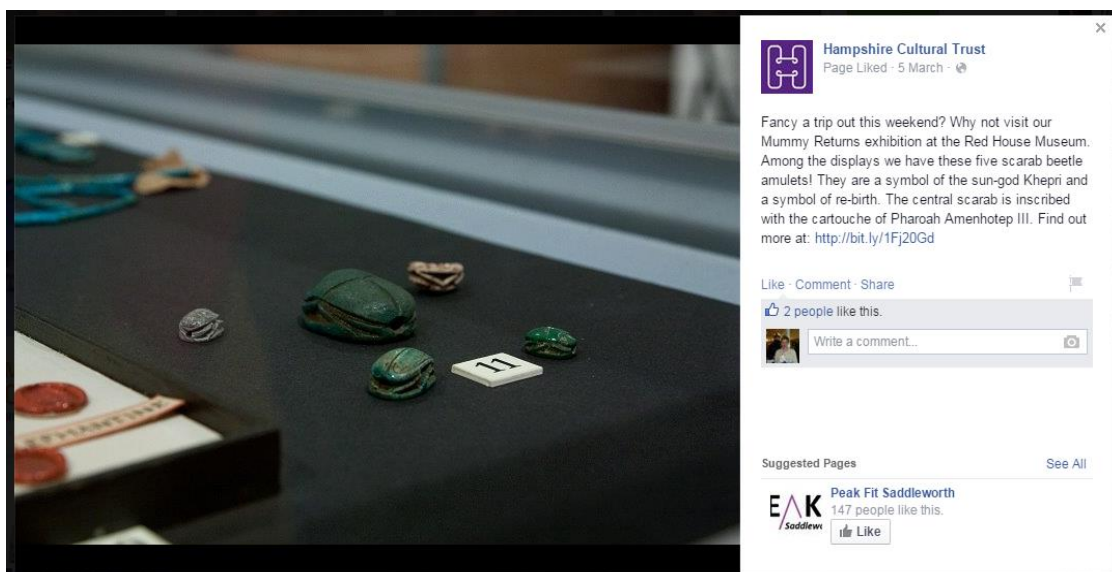


Figure 54 - *"Fancy a trip out this weekend? Why not visit our Mummy Returns exhibition at the Red House Museum. Among the displays we have these five scarab beetle amulets! They are a symbol of the sun-god Khepri and a symbol of re-birth..." (HCT, 2015c).*

On the main HCT Facebook page, archaeological objects from the collections appear on the Facebook page with relative frequency, although much of this is due to the bias of the *Hampshire Archaeology* Wordpress blog feeding into the page. An Advent themed post in December 2014, a photograph of a coin hoard is shared as part of a series of 'Advent' objects. This series is unusual amongst the content on the Facebook feed, as it describes an object, but does not advertise an event or venue. The photograph has had over 20 likes, and one comment. The comment was not responded to, but shows a potential opportunity to provide more information about coins as a learning experience.

"It's amazing where some people hide their cash! Our Advent offering today is this flint nodule, or crock, which was used to conceal a hoard of seven gold Iron Age coins...The coins are known to archaeologists as "staters", and date to the later 1st century BC. They had a wide distribution in Berkshire, Hampshire, Surrey and Sussex. This style of coin is known as the triple-tailed coin issue." (HCT, 2015d)

“That's fascinating! Can you also say if it is true that coins were also put in artificial plaster shepherd's crowns? I was told in my teens this, was done by highwaymen and left in strategic places for collection or payment?” (Robert George Garnham, 2015b)

The current Facebook page for HCT rarely shares content relating to collections. Almost all content relating to the archaeology collections is currently automatically generated from the Wordpress blog managed by the CoA. This content has a low-response rate because it is not written with the current audience in mind. There is potential to extend the reach of the Facebook page for HCT by creating content that fits to a clear theme and is immediately recognisable as being archaeologically related. This could be as simple as including a clear reference back to the archaeology collection in the title of the content.

Q.11.1 Proposal: Creating positive links between social media content and everyday activities in collections care

HCT could provide tailored headlines and abstracts for Facebook and Twitter that describe more appropriately the article to encourage clicks. HCT must identify ways of monitoring responses on Facebook, and reacting accordingly. If there is considerable interest in an article, HCT could provide follow-on content that is tailored to the audience. Preparation for this can be minimised by adding content to the Wordpress page that is more reusable. For instance, having photographs within Wikimedia Commons rather than in the Wordpress site itself. This will also hopefully encourage reuse of content within new platforms, and new communities, such as Wikipedia articles.

Q.11.2 Evaluation

Currently, the archaeology collections are represented on the HCT social media pages through links to the *Hampshire Archaeology* Wordpress blog, maintained by the CoA. These links are generated automatically by Wordpress, although there are occasional comments written by the CoA, which are general referrals back to specific blog posts, for example:

“Well sometimes I do a Twitter. There's an automatic one, saying, the latest blog has whatever, if I remember, I've put on 'Catch up with the skeletons on Stockbridge Down' or something like that.” (Allen, D. 26th June 2015, *pers comms*.)

There is a correlation between the use of social media by the HCT Marketing Team, who post a significant amount of the content on the social media accounts for HCT, to predominately advertise upcoming and current programming, and the CoA's use of social media, which signposts

newly published blog posts. Both parties are using the social media platforms to share news about events. However, this type of approach only makes use of a very small part of the overall functionality of social media, utilising only the broadcasting aspect of the tools.

The CoA agrees that the Wordpress site offers a way to present the collections in new ways, away from the less accessible printed publications which are not widely available and are also geared towards academic audiences. Although a large portion of the archaeology collections is published, the CoA agrees that it is not suitable for sharing online only in the formats that it is currently in:

“I was having second thoughts about saying 70% of the collection’s published. But, it’s only published to those with academic nouse, basically, you know, so yep, that’s 5% that could really easily navigate our way round that sort of thing. For everyone else, we really want to break it into different formats, different levels.” (Allen, D. 26th June 2015, *pers comms.*)

The CoA is enthusiastic about using social media to provide a narrative to accompany images of artefacts:

“Yeah. That wonderfully polished stone, but what was it actually for?” (Allen, D. 26th June 2015, *pers comms.*)

However, the DCO points out that there are few options to refer people back to when sharing content relating to collections:

“The problem is, our main website is, I daren’t say the words. Well it’s all been migrated, but its content that is, its ten years out of date. It’s static. And it’s, there’s not even good descriptions of each of the collections. You know as a base line. And you know we’ve got this Collections Highlights. Which is – just a bit of a random collection of things. It needs a lot of TLC.” (Ellis, L. 27th June 2015, *pers comms.*)

The DCO reckons on a need to redesign the current online offer from HCT:

“I think it’s a year project to do it properly. To do the collections section properly, and do the content. And get the tone right.” (Ellis, L. 27th June 2015, *pers comms.*)

There are no current plans within HCT to dedicate this time to the website. The DCO believes that involving staff in the creation of content for the website would improve the quality of content overall, as staff such as curators have specialist knowledge that is not currently represented online:

“But there’s nothing stopping people from being trained. I mean if they wanted to do it, we’d train them. You know. I can’t even get them to that. It’s the simplest things.” (Ellis, L. 27th June 2015, pers comms.)

This simplest thing is in fact that greatest barrier to the improvement of HCT’s online presence and it manifests in many ways within the organisation. For the DCO, it is expressed as a lack of interest from other staff members in learning the skills necessary to add digital content to the main website, but for staff in collections-focused posts, such as the CoA, it manifests as a lack of demonstrable recognition of the contribution of activities to the organisation’s objectives. This must be improved if the online resources such as collections data are to be improved.

Q.11.3 Evaluation summary

Positive impacts:

- Referring to specific collections and artefacts will increase awareness of the variety in the collections
- Content will become more varied and therefore more engaging
- Could become a mechanism for reviewing collections, adding value to interpretations
- More accessible for some than printed publications
- Could provide narrative for collections
- Could improve brand equity for the archaeological archives amongst the whole county collection
- Involving more staff in creation of online content would raise the standard of interpretation online, by expressing specialist knowledge about collections
- Could provide a way to bypass current mechanisms for sharing content on the centralised website
- Could bolster the online presence of the organisation
- Could present the personal experience of the volunteers, encouraging further uptake
- Could improve the reflexivity of the volunteer experience by providing feedback to coordinators

Concerns:

- Staff need to be trained, and this can only occur if there is willing

Q.12 Objective: Fostering transparency with volunteers

HCT has not engaged to date with the Wikimedia community and sees this as a challenging action. As part of this research I met with local Wikipedia editors in order to establish whether there was an interest in the community in the provision of digital content derived from HCT’s archaeology collections.

In addition to this, HCT must establish a more transparent relationship between the organisation's formal employees and its volunteers. This is problematic on the ground for many organisations, but research into social media use by non-profit institutions has shown that social media profiles can build stakeholder support (Waters, *et al.*, 2009). Volunteers have a unique relationship with local museums, and this could be recognised by HCT. At HCT there is a need to improve communication across the many venues more broadly, and a social media space could support this.

A major challenge to open innovation is the resultant pressures on objectives from external opinion (van de Vrande, *et al.*, 2009), but local museums have an expertise in incorporating multi-vocality into aims and objectives and are ideally suited therefore to this kind of model of development. HCT must foster transparency in communication of objectives to volunteers, and must develop ways to capture volunteer strategies to overcome issues and perhaps enable volunteers to re-design individual objectives for collaboratively designed aims.

Q.12.1 Proposal: Opening up organisational processes in order to crowdsource community input

Social media could be used to communicate with volunteers in an online space dedicated to transparent presentation of challenges for which volunteers can contribute skills and resources in a meaningful way. Several reviews of open innovation in similar contexts have evidenced that transparency is an important factor in innovation (Beale, 2012b; Chesbrough, 2012; West, *et al.*, 2014)

In communicating with volunteers through social media, HCT staff would acquire skills that will advance their own understanding of the nuances of analogous tools and platforms. Social media has been used within large companies to facilitate ideas generation (Vuori, 2012), and sharing information and news with volunteers through a social networking platform would contribute in unanticipated ways to future HCT activities.

HCT can broker a relationship with locally based Wikipedia editors to encourage content reuse. This could be facilitated by attending a regional meet-up and introducing the collections as a resource in order to establish which parts of the collection would be most useful in relation to the interests of the locally based Wikipedia users. By doing this, HCT representatives will gain a better understanding of the way that Wikipedia articles are created and changed, and this in turn will improve the decisions made regarding the digitisation of content.

Q.12.2 Evaluation

Within HCT there is a general interest in engaging Wikipedia, but no organisationally driven activities have been planned to date. The CoA has received communication from one Wikipedia Editor, who visited the stored collections in order to photograph a handaxe. As the CoA is currently working through the collections to design a programme of blog posts that outline aspects of the collections, there is an opportunity to also review the potential application of collections knowledge for more general information online, such as regionally-focused articles on Wikipedia. The CoA or DCO could invite local Wikipedia editors to a special showcase event at the collections storage facility in order to encourage use of the collections as evidence for articles. This could result in identifying existing interests amongst locally-based Wikipedia editors and could lead to the creation of digital content for this audience. Amongst the staff at HCT, the view of the Wikipedia community is one of reticence:

“When we tried to work with the Wikipedians in Wolverhampton, we found that they only wanted to do what they were interested in. And then that became difficult because they’d say, well, what’s all the information about this object. And we’d say, well we don’t know, we can tell you it’s a Samian ware vase, but, given by Mr Bancroft. But we can’t tell you anything else.” (Ellis, L. 27th June 2015, *pers comms.*)

In the above statement, the DCO is illustrating that there is a divergence in expectations by both parties. Although non-free images can be used in Wikipedia in special cases, for example a work of art that is used in an article as critical commentary and so must be included (Wikipedia, 2014c), contributors are under pressure from the Wikipedia community to provide free content. Local museums must meet this need, which is currently problematic at HCT due to the lack of support for opening up content digitally, as the DCO comments:

“And the problem with Wikimedia of course is that it has to be CC0. And, that becomes the sticking point. Because the organisation feels that it needs to be able to make money.”
(Ellis, L. 11th June 2015, *pers comms.*)

The DCO sees the specialist collections staff at HCT as potential Wikipedia editors. Although there are potential issues here with conflict of interest and staff would need training or pointers to resources to ensure appropriate use.

“Well I think – again it takes time – but I think the curators could be writing Wikipedia articles to go on there.” (Ellis, L. 11th June 2015, *pers comms.*)

The DCO felt that collections staff were unable to engage with Wikipedia due to programming commitments:

“You know, we do have collections or stories that could be put on there. You know we’ve got the source material if you like, for a lot of it, but you know it goes back to time. None of the curators, they’re run ragged, doing exhibitions.” (Ellis, L. 11th June 2015, *pers comms.*)

Potential could be found to build Wikipedia editing into strategic goals for exhibitions programming. The CoA is very enthusiastic about Wikipedia and sees it as a potential way to enable discovery of collections, but is not certain how to work with existing editors. Support could be provided for curators in the form of a Wikipedia article within the GLAM section of Wikipedia (2014f) that outlines how to work with Wikipedia users:

“Well, you said last time, you caught my imagination there. But, I can see how difficult it is to break in. Oh my god!” (Allen, D. 26th June 2015, *pers comms.*)

Q.12.3 Evaluation summary

Positive impacts:

- Could facilitate temporary relationships with individuals
- Could contribute to moving away from emphasis on images and lead to valuing other kinds of digital content

Concerns:

- Collections may not be of interest to online content creators
- Digital content will need to be reclassified under appropriate license, this may be time consuming in some instances
- Lack of support from governing bodies for opening up collections may block plans
- Programming commitments mean there is a lack of time available to engage with special interest communities
- Perceived as a difficult community with which to broker relationships

Q.13 Response to evaluation

Engaging with national and international events makes use of existing infrastructure and provides an opportunity for skills development. It is also a way to acknowledge user contributions to the care and interpretation of collections, and opportunities such as this could be actively sought out by HCT staff, as this form of recognition is an important part of identity formation for volunteers (Lovejoy & Saxton, 2012; Winterich, *et al.*, 2013).

The CoA voiced a concern for the need to meet expectations of users, and this stresses the importance of using established social media tools and platforms so that the user experience of content from local museums is wrapped in the aesthetic of particular tools. This will provide users with an online experience of local museums content that is familiar. From this, local museums can link to additional digital content that may not be so able to live up to expectations of user interface design, due to restrictions such as content management systems' built-in styles. This pathway to information will result in the initial presentation of content through social media improving attitudes to a museum generally rather than falsely raising expectations.

Studies in other sectors, such as health care (Antheunis, *et al.*, 2013), have shown that lack of skills for social media use is a significant barrier. Social media use by organisations for internal knowledge building can provide affordances not offered by other forms of communication such as email. These are defined by Majchrzak *et al.* as: "*metavoicing, triggered attending, network-informed associating, and generative role-taking*" (2013). In the context of local museums, these affordances are important aspects of organisational activity.

Metavoicing is embodied as reactions to other contributions to knowledge creation and can be a driver of organisational innovation in how HCT delivers services, this is because there are internal stakeholders such as volunteers who are not currently able to contribute to decision-making processes due to lack of transparency in activities. Triggered attending can manifest at HCT as a form of personal management of filtering through social media, as opposed to organisational level filtering of knowledge. Currently, updates are shared through email, and are compiled by nominated organisation representatives, this means that there is superfluous information as well as missing information. Network-informed associating enables individuals within HCT to build knowledge through the network graph (Papadopoulos, *et al.*, 2012) of social media use. This would manifest as user-defined interests shaping connections within the organisation, and these new connections would improve overall knowledge sharing as well as adding to personal skills development. Traditional forms of communication such as email would have to also be maintained to mitigate against the narrowing effect of social media personalisation. Generative role-taking would lead to flexibility in roles within the organisation enabling more creative problem-solving that empowered people to express experience. As social media is a highly personal practice, the reporting of experience from individual use could contribute to improvements in professional use, as is evidenced in the DCO's description of her own experience with Twitter:

“I know when I was using it a lot, I started, all the time I just kept thinking, how can I summarise that in fewer words, you know getting into that mindset.” (Ellis, L. 11th June 2015, pers comms.)

At HCT, there is an established method of skills development through work-based learning, specifically tools based training workshops. An alternative method for skills development could be the use of paper-based design exercises for social media scenario testing. Staff and volunteers could be provided with post-it notes and asked to jot down onto a post-it note a news update each time they began a new task, or finished an ongoing task. Collecting this information together would provide a picture of potential social media use. The physicality of the exercise, using the familiar technology of a post-it note would remove several of the individual barriers to technology uptake, and takes inspiration from speculative design (Lukens & DiSalvo, 2011), as it overcomes assumptions about tool functionality. Much like small companies, within local museums, there is a high percentage of generalised staff roles, and this can lead to gaps in experience with information technologies (Palvia & Palvia, 1999), and this is certainly evident at HCT. Overcoming the need for technical skills at the conceptual stage of the design of an approach to social media use therefore represents a significant opportunity for organisation development at HCT.

Local museums can be at the forefront of investigations into knowledge building with smaller organisations as they are institutions that have at their centre an aim to support individual development. As organisations, museums have not been leading in the development of skills for employees (Marty, 2006; Trant, 2009), but they have been pushing forwards methodologies for provisions of skills development programmes for volunteers. As the balance of employee to volunteer is mutable in analogous sectors, local museums are in a position to initiate innovation in skills advancement (von Krogh, 2012), and social media can support this.

The Hampshire Archaeology Wordpress blog is currently structured around series of articles, as outlined in the thesis. Whilst this is a standard form of blog use (Siles, 2011), it does not make use of the potential functionality of social media tools like blogs for facilitating dialogue or for empowering users (Kent, 2008, 2013; Fiesler, *et al.*, 2010; Lovejoy & Saxton, 2012; Campbell, *et al.*, 2014). The Hampshire Archaeology blog is a record of the both the activities being carried out in the archaeology collections, but also of the collections themselves. Through linking to external content, the CoA is making use of the connectivity of the Web:

“So what’s become more precise are the links to you know, our museums, or where stuff is, publications, which at the moment are just bibliographical, you’d have to go and search

them out, but obviously, some of them could be hyperlinks now, you could find articles referenced and go ping straight to it if you wanted to read it.” (Allen, D. 5th July 2015, pers comms.)

The use of blogging as a form of communicating behind the scenes activities is well-established in the museums sector, but maintaining such a resource requires dedication as well as resources. Common approaches to blogs are to share descriptions of activities from multiple staff members, but less common is the use of blogs to augment online collections databases. Outside of the museums sector, individuals also use blogs to provide behind-the-scenes views into their own personal lives, but increasingly blogs and micro-blogs are being used to narrate objects and events. This is referred to as ‘curating’, as described in the thesis, and can be seen to be occurring on several social media tools and platforms. This is a significant challenge for the museums sector, as on an individual basis we have more time to ‘curate’ the Web than on a professional stage. Collections specialists are unlikely to wish to amalgamate their personal with professional activities online, and so alternative ways to respond to the increase in online amateur curation must be identified.

As discussed in the thesis, online collections databases are an inadequate expression of curatorial skill. The narration of surrogate objects through blogging and micro-blogging presents an alternative model for exploration. HCT is rich in volunteers, who are involved in the organisation in a personal capacity and are therefore well-placed to engage with curation as an activity within social media. HCT is therefore poised to lead the way for local museums in experimenting with different forms of online amateur curation, which is also a way to enable a more multi-vocal approach to analogue world curatorial practice as it aligns volunteer contributions to interpretation with professional activities, thereby increasing the value of volunteer involvement.

Q.14 Connected museum

Q.15 Objective: Advocacy through supporting non-institutional groups

Advocacy for the archaeology collections at HCT is currently achieved through the development of relationships with special interest groups, by providing talks and facilitating visits to the stores. Currently, only the CoA is able to carry out these activities. These activities require substantial resources, but are valuable methods to improve awareness around the importance of the collections. Engaging with already existing groups via social media can provide an additional channel for advocacy building. *York Past & Present* is an unusual model as it began within a social

networking platform and is now a well-established community that meets on a regular basis and organises events such as behind-the-scenes visits to heritage sites in the city of York. This community is based in an interest in heritage, but extends beyond this initial interest into a support group. Members often comment about personal concerns and receive advice from other members. The group has over 9,000 members, but there is a core of around forty who meet in the real world and who are responsible for a large percentage of the content shared on the group's Facebook page.

It is unlikely that an organisational level social media account or indeed an individual posting in an organisational capacity would have much success in attempting to contribute content to analogous groups on social networking platforms, as the nature of the posts is that a high-degree of personal exposure is expected with each post. However, there is an opportunity for an organisation to support the information gathering activities of such groups and provide digital content such as images that groups could use to support individual responses to real world events. Groups like this respond in an agile way to events, and share content about current activities occurring in the locale. By identifying related content from collections, museums could support the identity building that occurs.

Q.15.1 Proposal: Supporting reuse of content through active sharing of resources with established communities

HCT could identify relevant regional heritage focused Facebook groups and advertise on a semi-regular basis digital content that is inspired by real-world events. There are many groups on Facebook that are well-subscribed and that have active communities sharing content relating to the heritage of Hampshire (Chandlers Ford Memories, 2014; Southampton Heritage Photos, 2014; Southampton and Hampshire over the years, 2014; If you've lived in Winchester a long time, you would remember..., 2014). Submissions to the group can be modest, HCT need not digitise all of the archives in the collection. This approach is a continuation on from the themed blog posts that the CoA has already been writing with volunteers from the archaeology collections, such as the post about the history of the hot cross bun, published on Good Friday (Stone, Allen, *et al.*, 2015).

Q.15.2 Evaluation

The CoA was interested in the difference between professional and personal personas online and the ways in which content could be shared to already existing social media based groups, such as *York Past & Present*. He felt that he would comment in a professional capacity in an analogous

group, but that he would need to be approached in order to realise there was a desire for him to contribute:

“I would do, but I would probably need a nudge. Again, I think that would probably come under the category of not looking for work!” (Allen, D. 26th June 2015, pers comms.)

There is an issue within HCT of individual staff members being uncertain about how to engage with other HCT representatives within social media, as this story from the CoA illustrates:

“So we do the blog. And so Andover Museum would say, can we put up the Andover stuff on our museum Facebook? Well! Or course you can I say. So that’s interesting that they had to ask. I mean it’s probably a courtesy, but, that’s in the same organisation, and yet, they’re not just, oh looks, Dave’s put that up, we can use that!” (Allen, D. 26th June 2015, pers comms.)

When considering the suggestion that there could be a common strategy for engaging with social media within the organisation, one that provided guidance for social media type use and outlined user expectations for different types of social media, the CoA commented that it would be really useful. His description of Twitter use to date illustrated a need for guidance to clarify the purpose of the tool in his professional practice.

Much of the frustration around regular social media use is tied into the centralised structure within HCT whereby the Marketing Team have control over most digital content being shared. This has led to a lack of understanding within the organisation about the current impact of such tools and platforms on the work of the staff, as the CoA commented:

“And I think the other thing, which would be, from within the organisation, this goes much wider than social media I think, is to have some sort of honest appraisal of how it’s doing.” (Allen, D. 26th June 2015, pers comms.)

The CoA appreciates that in the instance of the *Hampshire Archaeology* blog, he would be responsible for tracking impact of the blog, but he is not certain how to carry out evaluation:

“I mean, you get your weekly thing [Wordpress statistics], but it’s meaningless isn’t it? If it says, oh, you were two percent up on last week, or you were two hundred percent up on last week.” (Allen, D. 26th June 2015, pers comms.)

There is a recognition of the importance of being able to evaluate the impact of online activities, but following up on feedback from social media use seems to be a challenge currently:

“Well, yes it might turn into meaningful evaluation. I having said that of course I do YouTube videos of trains. And there of course it will tell you the percentage of male to female, or what part of the world they’re in and so on, and so on and so forth. Whether you actually then, whether it makes you do anything differently, I don’t know.” (Allen, D. 26th June 2015, pers comms.)

Whilst discussing the comments and views that can be tracked through YouTube, the CoA said that he was aware that comments were potentially a way to plan future content:

“But it will only tell you – it will tell you – which I suppose in terms of the Trust is what they want. If it tells you what appeals, you’re going to do more of that until they suddenly start to tell you that they’re fed up with that and they want something different.” (Allen, D. 26th June 2015, pers comms.)

Q.15.3 Evaluation summary

Positive impacts:

- Could contribute to developing new forms of professional-personal personas online
- Could help to identify an organisation-wide strategy for social media use
- Could lead to clearer purpose for specific tools/platforms
- Could develop guidance on user expectations for types of social media
- Could provide individuals within the organisation to report centrally about impact of their work

Concerns:

- May not be welcome as organisational links may negatively affect the dynamic of a group
- Opening up social media platforms to additional contributions may lead to lack of content if no overall editorial control is maintained
- Need to rely on quantitative measurement of impact of these activities results in inadequate expression impact

Q.16 Objective: Reducing technological determinism through social media use

HCT can use lessons from USHMM’s approach to inform the identification of methods for avoiding technologically determined activities.

Q.16.1 Proposal: Design objective-driven experiences that are conceived bottom-up

HCT must enable the focus of activities to be on the collections, but this must be based in community and individual requirements, in much the same way that the MAA use Drupal to

facilitate individual relationships with digital objects. In order to do this, the preoccupation with social media use must be overcome. Resources for staff could be developed to give outlines of the major forms of social media tools and platforms in order to raise awareness of the possibilities of technology use. However, the approach for social media uptake could instead be based on an awareness of the social embeddedness of social media and the social implications that therefore result from the use of particular tools. This thesis provides a framework from which to develop this awareness of context. Through the promotion of awareness within the organisation, staff can design objective-driven experiences with social media that fulfils the needs of the communities that HCT serves.

Q.16.2 Evaluation

Moving away from a focus on tools and platforms could improve the creation of digital content. Focus could be instead on the creation of improved workflow for digital content creation. The DCO feels that there would be challenges associated with changing the physical working environment to better support the creation of reusable digital content:

“We have the equipment here. I said but why can’t it be set up part of it as a studio? ... Its, ‘on no, we need the space for something else, nobody would use it’.” (Ellis, L. 11th June 2015, pers comms.)

It seems that the major barrier to the use of hardware to facilitate a pipeline for digital content creation is that there is a need for skills development amongst HCT staff:

“It’s a nice camera, it’s an expensive camera... I lent it to the marketing people, and they couldn’t work it: ‘We had to get the photographer to show us how to do it.’” (Ellis, L. 11th June 2015, pers comms.)

In this example, the high-specification of the camera that is being used by the DCO seems to be blocking adoption of such a workflow.

Q.16.3 Evaluation summary

Concerns:

- Lack of awareness of potential of improving digitisation pipeline due to lack of training
- Hardware is a barrier

Q.17 Objective: Informing community needs through event-focused social media use

Local museums have the potential to inform the future development of social media, and the expression of organisational specialisation through appropriately identified tools and platforms can contribute to achieving this aim. Just as the Brooklyn Museum uses Meetup to manage a special relationship with a community that has developed with a particular focus, HCT can support the development of community-focused resources and spaces through social media.

Q.17.1 Proposal: Carrying out a digital audit to better understand community needs

In order to identify appropriate online spaces for community development, HCT must first audit the digital needs of current communities of interest with which the organisation engages, in order to identify potential gaps in current service delivery for those communities. The auditing of current groups through assessing needs must be informed by the findings from this thesis. Outcomes that are attainable based on the organisation's current skills base must be developed through reflexivity on the part of the change practitioner (in this instance the CoA or the DCO). Social media adoption relies on informal experimentation that occurs on an individual rather than at an organisational level (Mergel & Bretschneider, 2013), and these proposals are in support of this model.

Q.17.2 Evaluation

Social media encourages personal engagement with networks of users and content online, and the individual experience is central to the uptake of a particular tool or platform. In an organisational context, this has often meant that tools that are mandated or chosen at an institutional level do not achieve buy-in from the staff for whom it is intended, or who need to use it to carry out tasks. Instead, people need to come to social media driven by personal needs, be they related to work or socially motivated by some other requirement. The DCO's comments about the uptake of Facebook within different museums run by HCT supports this:

"But it only works if the person in that venue who's managing the volunteers is comfortable with them doing it, and – you know – and I've noticed that since Amy's taken over at Andover, you know, she's putting more stuff on Facebook. She's comfortable with Facebook, she's using it herself. And you can see the difference, when you get somebody who – as I say, it's about being comfortable. You can teach them the practicalities can't

you? Press this button. Click there. But, but they've got to get it.” (Ellis, L. 11th June 2015, pers comms.)

Finding ways to support the individual process of learning that takes place as part of an individual's uptake of a social media tool can lead to the reapplication of skills in the work environment. This can be seen in the DCO's description of her frustrations in attempting to encourage the use of particular tools through staff training:

“Yeah, and a lot of people because they don't use it themselves, they just don't get it. And they say well why would anybody want that? Why should I do it? Well sometimes you just sort of have to say, well trust me. I'm sure they will. And if they don't, try something else. You know, you've got to work with your audience.” (Ellis, L. 11th June 2015, pers comms.)

Q.17.3 Evaluation summary

Positive impacts:

- Can support individual learning and improve digital skills

Concerns:

- Requires individual buy-in, developed through personal use developing into professional use.

Q.18 Objective: Joining up real world concerns with online collaboration

The use of social media to encourage participation in problem-solving has been addressed in this thesis, but identifying ways to enable such an activity online can be complex. This is due to the inequity of many social media tools and platforms, as discussed throughout. The USHMM *Remember Me?* project used very simple solutions to support the creation of digital content that augmented knowledge about collections. Identifying ways to incorporate small interventions on existing digital solutions used by HCT could improve people's experiences of HCT online by allowing for communication between users.

There are several key challenges in ensuring the future sustainability of the archaeology collections for HCT as identified in the thesis. Social media can provide information about general sentiments and this could be used as evidence to support the case to continue to fund collections care. Presently, there is no qualitative analysis of social media content produced in communication with HCT. HCT can identify parts of the collection that are particularly at risk, and create ways for people to improve the situation. This would need to be possible digitally, as well

as having a real world component that would enable people to follow-up online engagement with physical interactions with the collections. HCT could contribute to improving the crowdfunding pipeline more broadly, as seen with Kickstarter, by crowdsourcing the design phase of a project with a view to evaluating the potential for crowdfunding for the museums sector.

Q.18.1 Proposal: Use an existing digital platform to enable people to respond to research questions

Improvements to the collaborative design process, including funding, can be achieved by using already existing digital platforms to stage early open design events where research questions associated with the collections are put forward to self-defined community representatives. At HCT, the Wordpress blog can provide an easy to use forum for communication of problems that could elicit responses through simple functionality such as comments.

HCT could audit current social media content in order to identify opportunities for engagement, based on such thing as comments to photographs that contain a question. These types of content could be evaluated by the use of an established methodology for social media analysis, such as the sentiment analysis used by Villaespesa at the Tate Modern (2013a). As the social media presence for HCT is currently quite small-scale, a review at this point would benefit from manual identification of sentiment and content type and intention.

Q.18.2 Evaluation

The DCO felt that the suggestion to audit current social media content by HCT could benefit the organisation's understanding of the audiences' needs. She expressed a concern that the current use of Facebook and Twitter by HCT had been limited because of the need to cater to already existing audiences:

"Our fear has always been that it [object related content on Facebook] wouldn't work, because it's different audiences." (Ellis, L. 11th June 2015, *pers comms*.)

Instead, the HCT Facebook page has been used to share events information, and the DCO's understanding of the current audience is that this type of content is appropriate:

"The Hampshire Cultural Trust one, is purely, because of the content that is put on there, it's 'come to this' 'come to this' 'come to this' 'come to this', and if you had something in the middle, I think the audience there, they are just purely keeping tabs on what's going on." (Ellis, L. 11th June 2015, *pers comms*.)

The main barrier to beginning to experiment with different kinds of content in Facebook is the lack of resources to facilitate the creation of digital content by staff and volunteers:

"I think some of the, like the Red House Museum, they do a bit of everything, so they've got their Photo Friday, and they obviously put events in, I think a venue like that that's putting a mix on, they could put that, you know, what do you think about this, those more discussion things, because the problem there is, resourcing, because you've got to do it almost in real time, you know if people are posting comments, you can't leave it for a week before you get back to them. If you think how few staff there are in the museums."
(Ellis, L. 11th June 2015, *pers comms*.)

HCT has attempted to share digital content made up of collections information in the past, but there was little notion within the organisation about how to engage with particular audiences:

"What we tried first off, eighteen months, two years ago, is we had just all collections stuff, to see what went and what didn't. And that really just didn't work, because it was too broad. And I don't think anybody got it, you know there wasn't a niche audience."
(Ellis, L. 11th June 2015, *pers comms*.)

In the instance of the archaeology collections, there is the additional perceived barrier of the objects and archives being particularly problematic to share away from a curated exhibition content:

"You know and I think it works really well for photographs because its local, you know talk to Jo about this, but I think that if you had somebody who was keen to do things around like costume, you know like talking about what costume we've got, you know what costume. You could put it on the blog, you could Facebook it, whatever." (Ellis, L. 11th June 2015, *pers comms*.)

Q.18.3 Evaluation summary

Positive impacts:

- An audit could improve understanding of needs of current audiences

Concerns:

- May result in overemphasis on existing audiences over new ones
- Lack of resources to create digital content
- Archaeological objects are perceived to be particularly difficult to share away from an exhibition

Q.19 Objective: Encouraging discussion

The Wordpress blog has a small following, but there has been minimal investment in advertising the resource. There are several potential avenues to explore that could improve the reach of the blog by means of promoting articles within HCT's online social media accounts, but also with several social networking platforms that would be appropriate opportunities to encourage readership. The blog is currently focused on providing narratives around archives held at Chilcomb, but many analogous collections exist that could also be included in articles, such as local archaeology societies. In this way, the Wordpress blog would be providing an additional platform on which special interest societies could share findings from archaeological investigations. Currently, the Wordpress blog does not include any social tools that allow for discussion around articles, or for feedback to be gathered. Models such as Britain From Above show that people are keen to contribute to calls for assistance to improve knowledge about collections, and this could be encouraged by sharing information about the archive that is not complete.

Q.19.1 Proposal: Releasing digitally interesting content openly to facilitate reuse as well as object identification

In summer 2013, as part of a skills sharing event that I organised between HCT staff and researchers, postgraduate, and undergraduate archaeology students from the University of Southampton, an orphaned artefact from the archaeology collection was recorded using computational photography techniques. HCT could share the resultant 3D model from this event through media commons and the Wordpress blog, in order to solicit contributions to crowdsourcing the identity and origins of the object.

Q.19.2 Evaluation

The CoA described his awareness of the potential to open up processed such as object identification to a broader audience. Here, he is describing the way in which archaeologists communicated through an online forum to identify an excavation which appeared as part of a film in the British Film Institute archive (2014):

"Yes, absolutely, and within the Portable Antiquities Scheme they've got a 'What is it?' forum. And you know so Katie [Hinds, Finds Liaison Officer for the Portable Antiquities Scheme] will say, and someone will come back and say, well they did for the Nutbane – the

film of the Nutbane excavation, 'where is this dig?!' you know'... there is a competitive edge with things like this." (Allen, D. 26th June 2015, *pers comms*.)

The CoA was interested by the idea of encouraging non-experts to contribute information about artefacts or archives, but was less certain about how it would work in relation to the official information about the collections.

The DCO was concerned that people would not have time to engage with the collections in this way, by making connections between museum collections and their own activities:

"Unless you give it to them on a plate, they just haven't got the time." (Ellis, L. 11th June 2015, *pers comms*.)

There is very little evidence of many other kinds of digital content being considered by staff at HCT, and this is representative of a lack of space for staff to experiment with creating and sharing more developed types of digital content. The DCO does not think that modular digital content could be created to share through social media, instead she supports the uploading to an online collections database of high quality images of objects, although she comments that people are likely to find inspirational images elsewhere:

"What they [people generally] want is good quality images, that they can just reuse, and that's why they use Google. You know, they always do the quick thing." (Ellis, L. 11th June 2015, *pers comms*.)

The DCO agrees that images that have higher search engine optimisation will be more findable and this leads to the need to use existing infrastructures within online collections, such as Wikimedia Commons, to improve the findability of images shared online by museums.

Q.19.3 Evaluation summary

Positive impacts:

- Could result in object identification
- Non-experts could contribute information about archives
- Could raise awareness of potential reuse options for digital collections for creative/DIY activities
- Effort would be spent on improving the metadata of images of artefacts

Concerns:

- May not be easy to incorporate submitted information into the official catalogue
- Requires time commitment from the user

- Needs to be simple so that users can find and reuse content easily, this require wholesale digitisation

Q.20 Response to evaluation

There is a need within HCT to move away from a preoccupation with the tools and platforms of social media towards developing workflows that fit into existing practice for collections care and user engagement which are designed to facilitate the creation of multi-media, elastic digital content that can be used to support multiple activities online. For instance, at YMT a permanent mini-photography studio enabled quick creation of digital images and this had a direct effect on the ability of the Curator of Numismatics to contribute to a new GAP gallery (A Woods, 24th June 2014, *pers comms.*).

As a way to reduce the barriers presented by hardware, staff could be encouraged to use alternative hardware, for instance personal smartphone cameras or automatic digital cameras that are available within the organisation, but a transportable setting for the photographs could be provided, such as a low-cost cube tent with lights and interchangeable backgrounds.

As part of a drive to encourage use of collections information, staff and volunteers at HCT could put together a series of blog posts to put forward potential use. This need not be as prescriptive as, for example the PAS which lists research projects by student level that could be carried out using data available through the Scheme's website, but could instead outline within a post the potential use that someone running a particular kind of group or event might find for the collections. For example, the archaeology collections at HCT contains some good examples of carved stone and of ceramics. These could be used to support locally based stone-carving or pottery courses. The objects could provide inspiration for learners or be used for studies of techniques. Whilst this may seem prescriptive, this exercise would raise awareness more broadly of the potential for creative reuse of HCT's collections.

Evidence from the growing body of literature around the use of the Web as inspiration for activities such as DIY (Gauntlett, 2011) or craft (Holmes, *et al.*, 2012) point to this being a misconception.

It seems through discussion with staff at HCT that there is a recognition of the need to provide high quality digital content. For HCT, digital content that has been created from the collections is almost always discussed as digital images, and new forms of content are little mentioned.

There is an implicit acknowledgement of the value of providing images that can be found through Google. A photograph of an object from the collection shared on the HCT Facebook page, will have little to no impact outside of Facebook, whereas one uploaded to a more open platform and then linked to from Facebook will have more potential for discovery elsewhere online. In the example of a school teacher searching for images to support a lesson, a high quality image that has provenance which includes also contextual information will be more useful than an image found through a Google Image search that is less connected.

Q.21 Collaborative museum

Q.22 Objective: Volunteers and innovation

At Basing House one of the venues managed by HCT, amongst the volunteer tour guides for the site there is a high percentage of retired information technology professionals. This has resulted in interesting experiments at the site with mobile application development. As part of the research for this PhD, I have carried out a series of experiments with the CoA in order to ascertain the potential support that can be offered by partnership with an organisation that has access to digital skills. In this instance, I was acting as a representative of the archaeological computing research group at the University of Southampton. A major example of this is a series of five blog posts (HCT [woodheadc], 2015a, 2015b, 2015c, 2015d, 2015e) that I wrote as part of the Day of Archaeology. This is a global event that crowdsources articles from archaeologists and presents them within a centralised blog in order to raise awareness of the multi-faceted nature of the role of an archaeologist (Day of Archaeology, 2014; Richardson, 2014: 444).

As the improvement of knowledge around archaeology is a major objective of the work of HCT, the Day of Archaeology was chosen as an appropriate way to improve the reach of blog posts from HCT. The blog posts aimed to encourage involvement by volunteers of the archaeology collections with a more relaxed form of communication through blogging. The blog posts are included as Appendix G. Reactions by staff members and volunteers at HCT, as well as from a representative sample of partner agents, evidenced that the casual nature of the content was challenging for those who had not engaged personally with creating content for a blog before, but for individuals who had experience writing for a blog in a personal capacity were more comfortable with the internal informative (Primo, *et al.*, 2013) publishing model, and this is evident in research into organisational blogging more broadly (Agerdal-Hjermin, 2014).

Currently, the CoA uploads all articles written by volunteers to the Wordpress blog, Hampshire Archaeology. This means that there is a lack of individual experience with social media amongst the volunteers in this context. During interviews, several volunteers indicated that they would be interested in knowing more about how the blog worked, but there was some degree of reticence when asked if they would like to learn how to use Wordpress. Much of this is tied into pre-established attitudes about social media (Lüders & Brandtzæg, 2014), and ways to overcome this must be identified. Within the standard technology acceptance model (Venkatesh, *et al.*, 2003) expectancy of performance and effort must be considered alongside social influence (Venkatesh, *et al.*, 2003: 446-447), in order to improve use of technology within an organisation, and this can be applied in a social media context (Papadopoulos, *et al.*, 2013).

Q.22.1 Proposal: Enable broader experience of social media within a safe environment

HCT staff could bear this in mind when working with volunteers, and support the broader experiencing of digital tools such as Wordpress by enabling individuals to view articles and by encouraging them to read other blogs. This could be achieved by suggesting a new related blog for them to read each week and incorporating this suggestion into the blog post.

Q.22.2 Evaluation

HCT can act as a safe place for volunteers to access information about archaeology via social media. In doing this, HCT is enabling the development of cultural capital as volunteers gain skills for social media use through accessing content that is shared by representatives of HCT. As skills develop, volunteers would be encouraged also to share content via social media, and this would result in collaborative information discovery, which could potentially benefit the collections.

The CoA had observed the use of mainstream printed publications about archaeology by volunteers as information gathering which formed part of the social experience when at the archaeology collections, but was not aware of the gaps in resource use. The volunteers were not aware of several of the digital publications that are popular within the museums sector or within archaeology. The CoA saw online publications as derivative of print versions, and had not realised in his role the potential for information dissemination through indexing websites such as Culture24:

“Yes, I mean I think they all probably read British Archaeology or Current Archaeology, so therefore Culture24 is just the online expression of that sort of thing. As is Archaeology

Appendix Q

America [Archaeology, a magazine publication by the American Institute of Archaeology] isn't it?...It seems to be judging from the experience of this Roman ring, it hovers up all these stories." (Allen, D. 26th June 2015, *pers comms.*)

As part of a discussion about news websites and established archaeology themed social media accounts, the CoA commented:

"So yes, they seem to be very eclectic in their taste, I mean, they'll take everything in, flint tools found in – so yes, I mean I think the encouraging of that sort of easier contact – better contact – whether it would work within the Trust, I don't, I'm not sure." (Allen, D. 26th June 2015, *pers comms.*)

The CoA felt that HCT was too unsettled following the move to Trust status to engage with social media for information sharing internally. When asked why this would prevent networking through social media platforms, he said:

"Having said that of course, some of the volunteers would know the other curators, and will have asked them to talk at their local groups and things like that. Which is that old fashioned way if you like that networks are built. By saying come and talk to our group, or – or, you know, I bumped into you at the conference last weekend, or whatever." (Allen, D. 26th June 2015, *pers comms.*)

The DCO was also enthusiastic about using social media to share information internally, with a view to it supporting the development of digital skills amongst volunteers and staff. She felt that it would be more likely to work if staff were provided with social media familiarisation beforehand. In this way, the DCO is still assuming that the staff will teach the volunteers:

"Yeah, there's no reason why it shouldn't work. I think that, it will only work if the staff that are running those Facebook pages or whatever, are themselves keen and comfortable with it." (Ellis, L. 27th June 2015, *pers comms.*)

In the instance of the Red House Museum which has the most active Facebook page, the curator is a social media user outside of work and this may be a reason for his own use of and support of the platform being used by volunteers to share news about the museum:

"So the Red House, as I say... they have their Photo Friday. That is content that is posted by the volunteers cataloguing the photo collection." (Ellis, L. 27th June 2015, *pers comms.*)

The Red House Museum's post about images being digitised by volunteers is a rare instance of HCT reporting on the valuable contribution that volunteers make, through social media.

Q.22.3 Evaluation summary

Positive impacts:

- Can provide a safe space for the development of personal digital skills as well as for professional development
- Can lead to improvements in cultural capital amongst volunteers and paid staff and support social experience
- Could result in collaborative information discovery, improving knowledge about collections
- Can improve awareness of role of paid staff in knowledge development of others within the organisation by improving sharing information internally
- Could act as a networking facilitator
- Volunteers would be given an opportunity to lead on activities and to train paid staff in digital skills
- Could improve care of artefacts and contribute to identification
- Could improve the experience of the stored collections for external parties
- Could express the complexity of the role of curators
- Could encourage playfulness with digital content
- Could improve how the organisation tracks reuse of content, augmenting evaluation of impact

Concerns:

- Lack of time for staff to develop skills to use digital forums

Q.23 Objective: Utilising support networks

HCT, by means of the CoA has a close relationship with the Hampshire Field Club and Archaeological Society (HFCAS). This society has several highly skilled members who have an active involvement in archaeological investigations (both field and desk-based) in Hampshire. Currently, the CoA attends HFCAS meetings and often gives presentations to members. This is not actively reciprocated, as there is no mechanism for HFCAS members to share knowledge with HCT other than using the CoA as a conduit. The HFCAS proceedings are currently being digitised, and this represents a considerable opportunity for HCT to support the digital presence of HFCAS in relation to the archaeology collections. This could be implemented initially through inviting HFCAS members to submit brief contributions to the Wordpress blog, which are inspired by content from the soon to be online HFCAS proceedings. The CoA could augment articles with links to artefacts and records with the archaeology collections at HCT.

Q.23.1 Proposal: Strengthening community connections through facilitating real contributions to collections knowledge

The Wordpress blog does have comments functionality at the end of every post, but there has been minimal use of this opportunity to date. In order to solicit feedback, the CoA and volunteers could write posts that are aimed at specific audiences and request input in a more direct manner. HFCAS members are privy to information relating to many of the archives cared for by HCT and could be contacted directly via the HFCAS website (2013) and invited to contribute to the blog. This would encourage community involvement in the improvement of knowledge about the archaeology collections for HCT and for the HFCAS also.

Q.23.2 Evaluation

The CoA was positive about the idea of encouraging input to research being presented through the *Hampshire Archaeology* blog from special interest groups. He was concerned about the loss of control that might result from opening up the blog to additional authorship, but saw that content from external groups could enrich collections knowledge:

“Yes, well I think that that’s a possibility. I think it would need more organisation, that’s the thing. Like so many things, if you have got an idea and a process going, then you continue to feed it, then you’ve got, sometimes can mean that you’re creating quite a rod for your own back to meet self-imposed deadlines and all that, but it means you’re in control.” (Allen, D. 25th June 2015, *pers comms*.)

However, the practicalities of managing the timetable of a multi-authored online blog were a concern for the CoA:

“I think if you – the minute you – you know it’s like editing the Hampshire Field Club newsletter, you get to within a month of the deadline, and you’re thinking, there’s nothing to go into it, either I’ve got to start writing articles or I’ve got to go and beg people to you know provide some stuff, you know. So, yeah, I think, that’s the – for me anyway – that’s the old – it’s so much easier if you keep your hand on the tiller yourself.” (Allen, D. 25th June 2015, *pers comms*.)

The CoA felt that the blog would need to continue to have centralised editorial management, in order to ensure content was regular:

"I have had people asking to contribute, and I've said yes, and it hasn't happened yet. So like the HER [Hampshire County Council Historic Environment Record team] said we could put some articles on. I said, 'Fine, write them!', you know? And they said, 'Well, you know...' So it is open, but you know, no one has." (Allen, D. 25th June 2015, pers comms.)

The volunteers for the archaeology collections provide different skills and have varied commitments, these means that the CoA must manage the creation and allocation of tasks so that they fit with individual requirements.

"It's interesting. That sort of level at which you're getting involved, probably does relate to how much time you give to it when you're away from the building. The place. So if you're volunteering one day a week, or two days a week even, then, there is an acceptance that that would be Jane, who I'm sure would take stuff away and do it, as she did when she wrote up the Walworth Barrows (King, 2015), and she's looking now for a new project. And she would really want another big project. So they are at different levels. You know, Peter, obviously wouldn't really want that, or at least, he'd love to write skits on things. He'd write funny articles. He'd probably be up all night doing those." (Allen, D. 25th June 2015, pers comms.)

Q.23.3 Evaluation summary

Positive impacts:

- Could enrich collections knowledge
- Could lead to improved overall view of the development of knowledge around collections

Concerns:

- May result in loss of control over publication timetables and lack of content
- Tasks would need to fit in with individuals' requirements of their relationship with the organisation/collections

Q.24 Objective: Volunteers and digitisation

At HCT, volunteers have had no involvement in digitisation to date, and despite the willingness of staff to create digital content and the existence of a substantial group of committed volunteers who visit the archaeology collections on a weekly basis, very little has been put online. This is predominately due to the lack of technology availability in the offices within which the team is based. However, in order to improve the availability of technology, the CoA would need to have a considerable case of evidence to argue for funding to acquire new hardware. Currently, the CoA

brings his own tablet to the office when he wishes to use social media. This need for an evidence base requires a gradual increase in the use of technology by volunteers as well as the CoA to augment tasks carried out as part of normal practice, rather than through the creation of extraordinary activities. This is necessary as the interventions must be sustainable, but also scalable in order to continue once more appropriate technology is procured.

Whilst carrying out action research in the archaeology collections, there were several instances in which a volunteer would make a discovery and share that with fellow volunteers over lunch break. News sharing is an essential form of community building (Chen & Hung, 2010), and creating ways for this to occur could contribute to extending the volunteer community to incorporate news from some of the less confident volunteers. One volunteer was very interested in the idea of contributing the research that she had been carrying out about a woman archaeologist who ran several excavations in the county in the 1950s in the form of an article to the *TrowelBlazers* blog (2014). *TrowelBlazers* is a movement to improve knowledge about early female archaeologists, and encourages community-submitted blog posts about individuals. On hearing about the blog, the volunteer immediately visited the website and looked at existing records. She found a reference to a female colleague of the woman that she was researching, but very little other information. From this, it was apparent that she would like to contribute to the blog, but was uncertain how to proceed.

Q.24.1 Proposal: Developing guidance to enable tool and platform use

A guide to writing content for the Web that is written with museum stores volunteers in mind would act as a support tool for instances such as this. A guide to writing Web content could include approaches to creating content for different circumstances such as blogs, micro-blogs, media-sharing platforms, and social networking platforms. The guide could also provide pointers for user expectations for follow-up with different kinds of content. For example, advice could be provided on how a volunteer could react to a comment or a positive affirmation on content. This kind of guide would have far more usefulness longer term as it would not be platform or tool specific, but would provide volunteers with the skills that they need to engage with the social Web.

The CoA works with each volunteer on an individual basis and has a good knowledge of each person's preferences and abilities in relation to tasks. However, there is sometimes a discrepancy in the sector-related knowledge of volunteers in relation to the knowledge of the CoA. As an example, the Wordpress blog has been included on the Culture24 website several times. The CoA

has assumed that the volunteers were all aware of this because they read the Culture24 regularly for archaeology and museums related news. However, the volunteers did not know about Culture24 at all, and were excited to hear that their blog posts had been included on a website such as this. Other than mentioning the publication of the blog posts to the volunteers when he saw them, the CoA has no mechanism for sharing news about this kind of event, and a centralised online space to do this would perhaps encourage volunteers to share information about their contribution to the work of the HCT within their own online networks.

Q.24.2 Evaluation

In order to incorporate ICT skills development into the volunteer programme at HCT, methods for the delivery of support would need to be developed. Volunteer focused guidance for pipelines from digitisation to social media sharing and evaluation could be designed. The DCO felt however that volunteers were responsible for their own skills development when it came to social media:

“They’ve got to be pro-active haven’t they? I think that – it depends how keen they are. There’s enough on the Web. I only learnt it by Googling it. I didn’t have any experience doing it before I came.” (Ellis, L. 25th June 2015, pers comms.)

There is a danger in making assumptions about individual knowledge about the possibilities of technology, and this is a common problem in the design of activities for people within organisations. The DCO does agree that in order for adoption of new approaches for social media to take place, there needs to be a way to come across instances of social media use within the context of HCT. Talking about inspiration for social media use, she comments:

“One [idea] perhaps sparks off the other, I think that, like with creating videos, the technology’s not hard. You can do it on your iPhone, or your smartphone can’t you?” (Ellis, L. 25th June 2015, pers comms.)

One major concern for the DCO is maintaining a certain level of quality of digital online content:

“It’s about – part of it is about having discussions about what kind of quality is acceptable. Is there merit in quick and dirty little video, you know, we tend to in the culture field, think that everything has to be high quality, you know?” (Ellis, L. 25th June 2015, pers comms.)

When asked whether the volunteers or the employees would be concerned about the content that was being published the DCO stated:

"I think the staff would be concerned about the quality, about the accuracy." (Ellis, L. 25th June 2015, pers comms.)

The public reception of social media content are a major concern for the DCO:

"It goes back to, who are you aiming it at? Who are the audience? If the audience is just other volunteers, that's quite a small audience, you can always put a caveat on it that - this is the views of – this is my views, this is necessarily Hampshire Cultural Trust views. But if you actually wanted to create content that actually goes out to the general public, I think it's a different audience isn't it? And then you have to think about who that audience is. That's when the professional expertise of the curators and the education people is important isn't it? Because you're creating content to interest certain age groups. You know so, it's different isn't it; it's what the purpose of it is." (Ellis, L. 11th June 2015, pers comms.)

The above statement is symptomatic of a general feeling that the organisation must maintain control over online content, and that there are people who are inside the institution and those who are outside; the volunteers. However, the other audiences that the DCO is referring to must also include special interest communities, educational groups, and other stakeholders in the archaeology collections.

In this scenario which uses the ideas of local museums from Chapter 3 of the thesis, there is no 'public' per se for whom HCT produces content. Instead there are many individuals who are part of overlapping communities. These individuals will have several requirements of HCT, which may at times be conflicting, and these needs will sometimes include being part of the process of interpretation of heritage. Because of this, the imperfect view into HCT that the DCO is so keen to keep for volunteers and employees, is in fact an integral part of the experience of heritage that HCT could be facilitating through the local museums within its care.

Q.24.3 Evaluation summary

Potential impacts:

- Could provide a way to support multiple levels of digital skills amongst paid staff and volunteers simultaneously
- Could reduce barriers between the organisation and people, overcoming the emphasis on an imagined 'public'
- Could involve multiple voices in interpretation of collections

Concerns:

- Methods for delivery of support would need to be developed
- Volunteers are responsible for their own skills development and would need to be proactive
- Could negatively impact on quality of digital content from the organisation

Q.25 Response to evaluation

The recognition of the benefits of social media to facilitate networking between staff and volunteers and as a way to build contacts between groups represents a new way for HCT to support volunteer development. The potential of involvement in an online community to provide joyfulness, stimulation and companionship (Nimrod, 2014) for older people has been evidenced, and this is in line with the goals of HCT.

With the variety of skills amongst volunteers at HCT, and the lack of time that staff have to develop technical skills, it is more likely that volunteers would be leading the skills development.

For staff members at HCT there is a constant flow in and out of the main offices of artefacts, but there is no current way to capture the artefact perspective. The objects move between people and rooms as part of a process of care, research and presentation to the public. But objects are also brought to the curators for identification. This is a significant part of the work that the curators carry out on a day-to-day basis. HCT could identify a pipeline for artefact identification that could contribute to improving the care of the object as well as contributing to the experience of the public of the stored collections.

Playfulness can be expressed through micro-blogging and can be combined with expression of the curatorial process. Each time that an object is left on a curator's desk, it could be added to a Tumblr blog, as an image, a quick photograph will suffice, and this could build iteratively into a rolling display of objects in transit through the stores. These items could be returned to as they are identified with a second post, but the connection between the arrival of the object and the identification of the object need not be the emphasis of the Tumblr blog, instead, the potential for engaging in a more playful way with the temporary appearance of objects can inspire reuse in unanticipated ways. This is evidenced in the experience of the Rijksmuseum with Rijksstudio, and can also be seen in the ways that Tumblr encourages creativity around identity and facilitates easy reuse of content in unusual ways (Gross, 2013). In order to increase the reach of these images, the Tumblr content could also be replicated on Instagram.

Instagram is a social media sharing platform that is predominately made up of images that have been modified using filters to give photographs a particular mood (Alper, 2013). Instagram

provides an additional outlet through which HCT can engage with a different audience and therefore extends interest in media content from HCT. The images to be shared on Instagram could be styled in line with the platform, in the same way that LACMA adopted the style of Snapchat, and could include references to HCT through the placement of HCT branded objects within photographs and with the use of tags to link back to HCT. HCT could use a URL shortening service, such as bit.ly (2014) in order to better track the use of URLs included within social media content.

Sharing potential tasks through social media project management tools such as Trello (2014) could reduce repetition of tasks by volunteers, as well as supporting the CoA to design and collate tasks in one place.

The digital skills audit carried out with volunteers at HCT shows that experiences of the Web varies significantly. The results are available in Appendix E. Some volunteers have carried out complex tasks such as using online feedback from forums for problem solving, whereas other volunteers have not used the Web to carry out more modest tasks such as shopping or communicating with service providers. This highlights that HCT must support people's experience of technology simultaneously on many different levels.

A way to overcome the concern about the quality of content could be to have an iteratively developing system for feedback that would lessen as volunteers gained confidence in using particular types of social media tools and platforms. This is not quite an editorial review route, but is instead aimed at supporting individuals' skills development through real-world experience of technologies. This would mitigate against concerns about public reception of social media content.

Q.26 Analysis of opportunities considering practical implementation

The evaluation summaries were analysed in order to identify key themes for opportunities afforded by social media. Four major themes were identified. The opportunities are grouped with the relevant theme below.

Q.26.1 Implementation against strategic needs - Aims and Objectives

This theme focuses on improving the intended scope of social media use by aligning plans to strategic level objectives. This theme also aims to improve the link between organisational objectives and needs of the communities concerned, see table 21 below.

Aims and Objectives

Provision of online space for development of skills through experience sharing;
Improve connections between physically separated staff and collections;
Must be organisation as well as personally driven;
Would provide a focus for the contribution of volunteers;
New way to present the archaeology collections;
Improves digital skills amongst staff and volunteers;
Increase transparency of activities to involve volunteers in decision making;
Could start up conversations with new communities of interest;
Could encourage new narratives around objects;
Could encourage interconnections between communities;
Could improve brand equity;
Could lessen tension between aims to raise revenue generation and aims to improve access to collections;
Could enable leveraging of the opportunity of communicating with global audiences;
Creative reuse of collections could contribute to regional economic building and cultural capital building;
Could re-centre museums as places of trust;
Could improve brand equity for the archaeological archives amongst the whole county collection;
Could bolster the online presence of the organisation
Could present the personal experience of the volunteers, encouraging further uptake
Could facilitate temporary relationships with individuals
Can support individual learning and improve digital skills
Could result in object identification
Can provide a safe space for the development of personal digital skills as well as for professional development
Can lead to improvements in cultural capital amongst volunteers and paid staff and support social experience
Could result in collaborative information discovery, improving knowledge about collections
Could improve care of artefacts and contribute to identification
Could improve the experience of the stored collections for external parties
Could enrich collections knowledge

Table 21 – Opportunities relating to aims and objectives setting

Q.26.2 Reflect on experiences - Audit and Review

This theme aims to improve technology use by auditing existing skills in order to improve take-up of digital solutions in the organisation. This theme focuses on reviewing attitudes and aims of interventions that use technology to develop understanding within the organisation. This will lead to improved buy-in from stakeholders, both internal and external, see table 22 below.

Audit and Review

Creation of new digital content through these events is valuable;
Replication of curation model is familiar and therefore perceived as easier than alternative suggestions;
Would give a more complete view of the current attitudes to use of social media at HCT;
Could improve future developments;
Positive use stories could improve attitudes to technology in the organisation;
Would build an argument for an open agenda within the organisation;

Could provide picture of possible reception of open content by current audiences and new audiences;
Could contribute to developing new forms of professional-personal personas online
Could help to identify an organisation-wide strategy for social media use
Could lead to clearer purpose for specific tools/platforms
Could develop guidance on user expectations for types of social media
Could provide individuals within the organisation to report centrally about impact of their work
An audit could improve understanding of needs of current audiences
Could raise awareness of potential reuse options for digital collections for creative/DIY activities
Could express the complexity of the role of curators
Could lead to improved overall view of the development of knowledge around collections
Could provide a way to support multiple levels of digital skills amongst paid staff and volunteers simultaneously
Could reduce barriers between the organisation and people, overcoming the emphasis on an imagined 'public'

Table 22 – Opportunities relating to auditing and reviewing

Q.26.3 Increase awareness through reporting - Evaluate and Inspire

This theme focuses on the importance of incorporating evaluation at the level of implementation.

This can be achieved by encouraging use of technology through inspiring individuals to engage with approaches and tools through experiencing stories about use within and outside of the organisation, see table 23 below.

Evaluate and Inspire

Improves the link to national initiatives;
Raises profile of organisation to a wider audience;
Contextualisation could enable individuals to make their own decisions about knowledge building online;
Could shape Web by improving coverage of a topic online;
Could contribute to understanding about the links between sharing content and 'bums on seats';
Referring to specific collections and artefacts will increase awareness of the variety in the collections;
Content will become more varied and therefore more engaging;
Could become a mechanism for reviewing collections, adding value to interpretations;
Could provide narrative for collections;
Could improve the reflexivity of the volunteer experience by providing feedback to coordinators
Can improve awareness of role of paid staff in knowledge development of others within the organisation by improving sharing information internally
Could act as a networking facilitator
Volunteers would be given an opportunity to lead on activities and to train paid staff in digital skills
Could improve how the organisation tracks reuse of content, augmenting evaluation of impact

Table 23 – Opportunities relating to evaluating and inspiring

Q.26.4 Support personal experimentation - Plan and Test

This theme focuses on the benefits of enabling casual and personal led experimentation with the Web in order to improve planning for social media use. Planning and testing could incorporate personal motivations and also acknowledge personal experience and skills, see table 24 below.

Plan and Test

Keen to find ways to reuse existing digital images and archival materials;
Uses existing infrastructures;
Way to free up activities online from existing restrictive Web resources;
Make use of the connectivity potential of the Web, making connections with existing online content and concepts;
Could enable experimentation with amateur curation online;
Would support individuals to develop skills relating to judging the reliability of online information;
Could make content more findable;
More accessible for some than printed publications;
Involving more staff in creation of online content would raise the standard of interpretation online, by expressing specialist knowledge about collections.
Could provide a way to bypass current mechanisms for sharing content on the centralised website
Could contribute to moving away from emphasis on images and lead to valuing other kinds of digital content
Non-experts could contribute information about archives
Effort would be spent on improving the metadata of images of artefacts
Could encourage playfulness with digital content
Could involve multiple voices in interpretation of collections;

Table 24 –Opportunities relating to planning and testing

The opportunities outlined in this section underpin the design of the MUSM stages for implementation in the MUSM framework.

Appendix R NVIVO Interview Codes

Table 25 below lists the NVIVO codes used for the initial coding of interviews with participants.

Node	Sub-node	Sub-node
Current social media use	Louder	
	Bigger	
	Further	
Barrier	Confidence	
	Loss of control	
	Beginner/Expert	
	Amateur/Professional	
	Perception of resource requirements	
	Perception of purpose/potential	
	Quality of content	
	Planning	
	User motivations	
	Resource	Cost
		Hardware
		Skill - tone of voice
		Skill - development (paid staff)
		Skill - development (volunteers)
		Skill - development (audience)
		Staff resource
		Time
	Governing body	
	Advocacy	
Curation		
Engagement	Impact	Internal
		External

Appendix R

Node	Sub-node	Sub-node
	Audience	
	Interest	
	Evaluation	
Opportunity	New Audiences	
	Reputation	
	Serendipity	
	Personalisation	
	Ambassadors (internal)	
	Ambassadors (external)	
	Collections development	
	Enjoyment	
Purpose of Use	Marketing	
	Reputation - Individual	
	Reputation - Organisation	
	Leisure	
	Personalisation	
	Audience research	
Strategy		
Digital Skill	Misuse of technology	
Open		
Connected		
Collaborative		
Located		
Identity		
New narratives		
Community-led		
Curation		

Table 25 – NVIVO nodes and sub-nodes

Appendix S Report: Identifying local museums

Numbers of local museums are unclear. As a response to this, this report intends to build a picture of the current situation for local museums in England and Wales by combining datasets to quantify the 'local museum'.

It is estimated that there are over 2,000 museums in the UK. ACE (ACE) has accredited over 1,700 museums and to date these are the only reliable figures available regarding the numbers of types of museums. Of the 2,000 or so museums, there are just over 700 local authority managed museums (ACE, 2014b). In the accreditation scheme returns of December 2014, there were 562 local authority owned museums (ACE, 2014c: 9). This is in comparison to a total of 413 unitary, upper and second tier councils in the UK in total (LGiU, 2014). Nearly all local authority are locally focused, with collections derived from the local environs. Accurate figures are available for local authority museums in England. Of the 1,316 accredited museums in England, 397 are local authority managed (Tuck & Mirmolavi, 2015: 15).

These 397 are managed by 123 local authorities. When considering both accredited and unaccredited museums in England, in 2013/14, 251 local authorities out of the total of 353 have expenditures relating to museums or galleries (Tuck & Dickinson, 2015: 10). There are no figures available that provide accurate numbers for independent museums in the UK, but the Association of Independent Museums (AIM) has 800 museums registered as independently managed (AIM, 2014: 4). ACE's accreditation scheme reports 765 independent museums, plus 152 National Trust managed museums (ACE, 2014c: 9). Many, but not all, of these independent museums have locally focused collections. From these figures, I estimate that approximately half of the museums in the UK are locally-focused. This is a modest estimation, and the real figure is likely to be substantially higher. Locally focused museums are therefore have the potential to make-up a significant portion of our experience of museums generally.

The collections and programming focus of local museums in the UK is also difficult to ascertain. It is estimated that there are over 2,500 museums. The most accurate figures available are those provided by ACE as it manages the national accreditation scheme for museums that are considered to fulfil the code of ethics as supported by the Museums Association (MA) (2012a). According to ACE, as of November 2014, there are 1,735 accredited museums in the UK (2014b). Very little information about types of museums exists, and much is anecdotal. In order to fill this gap in knowledge, I have categorised every ACE accredited museum by collections type and

management type in order to gain a better understanding of the significance of museums with local collections.

My findings show that there are 1,156 accredited museums that have collections made up of locally derived materials. These are mostly municipal or regional museums and are managed by local authorities or are independently run. The independently run museums are managed by either the National Trust or English Heritage, or have charity status on a more local scale. This is generally organised by means of a trust, although a small minority are privately run. Out of the 1,735 accredited museum, I have identified only 30 that deal exclusively with archaeology collections. Most locally focused museums have mixed collections, made up of artefacts that cover a mixture of topics. The most popular are social history, natural history, and archaeology.

In the 2008 UCL research into stored collections in museums, the research identified seven types of museums:

- Large national museums
- Large object collections (railways, transport, farm and agriculture, mining)
- Highly specialised collections (costume and textiles, vintage radio and television, botany, architecture, service)
- English Heritage archaeology regional stores
- University museums (archaeology, mixed, art, ethnography)
- Large local museums (local authority funded, some with centralised collections)
- Small local museums (independent and local authority funded)

My own categorisations built on Keene *et al.*'s work by simplifying the groupings in order to gain a clearer picture of types of museums compared to the scale of geographical focus of a museum. I used the following categories:

- local history (regional geographical focus)
- archaeology
- outdoor heritage site
- transport
- industry
- natural history
- science and technology (includes medical)
- special collection (e.g. childhood, theatre, media)
- university/research/library
- art/architecture
- military
- national

I then classified the focus of each museum's collection as:

- Local
- National

- Global

It is important to note that the classifications above are not concerned with the ownership of a museum, but the predominate collections and programming focus of a museum. Findings from analysis of the ACE accreditation lists shows that in comparison to local museums such as municipal museums or regional museums, other types of museums occur in much lower numbers (2013a, 2014b). The chart overleaf in figure 55 shows the comparisons of geographical reach of collections in relation to the type of museum. National and global classifications have been combined into 'non-local' for ease of reference.

As figure 55 demonstrates, within the total of accredited museums there are 113 military focused museums and 54 museums that are university or library managed. These have collections that are nationally or internationally derived. There are also other types of museums that focus on particular topics. For instance, there are close to 90 museums that have collections focusing on industry and there are just under 70 museums that have transport collections. However, many of these are *locally derived* collections. For instance, of the 92 museums with industrial collections, 79 have locally focused industrial collections rather than national or globally derived collections. When we consider the locally focused collections the total of local museums rises to 1,344 accredited museums. Locally derived collections make up a substantial proportion of the total of accredited museums in the UK. In fact, they represent just under 78% of the total number.

Locally derived and focused collections by museum type
- locally focused museums (blue/left) compared with non-locally
focused (grey/right)

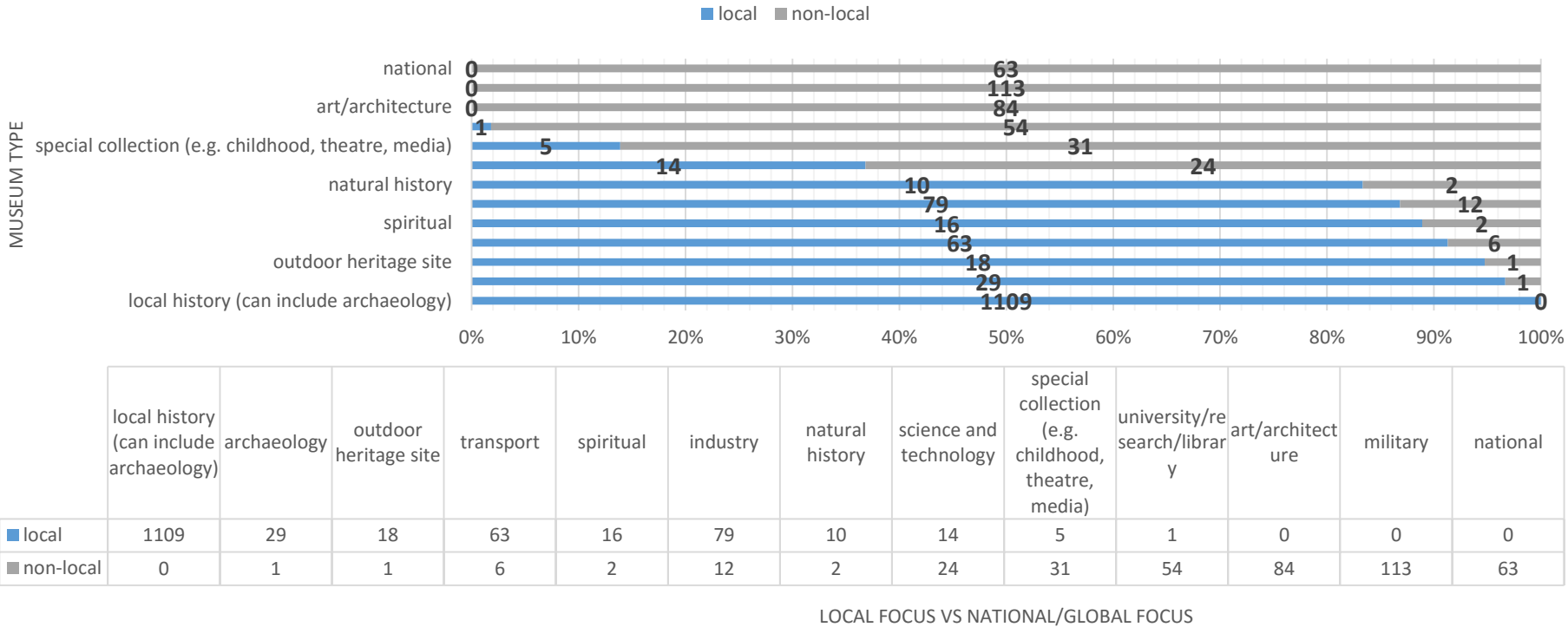


Figure 55 - Locally derived collections versus national and global collections, by museum type. Data originates from the ACE November 2014 list of accredited museums (2014b).

Appendix T Analysis for action research at HCT:

Differences between museum types

This report was prepared as part of the action research carried out at HCT. The report is intended as a conversation piece with research participants in order to discuss the context-dependent and context-independent challenges of HCT. This report supports the development of the solutions presented in Appendix 7.

T.1 Programming of local museums

The activities of a local museum will be generally aimed at local communities but there can also be temporary or permanent focus on visitors to an area. This means that programming must cater for multiple levels of awareness of topics likely to be covered by an area. This can result in a tendency towards more universal narratives (von Wistinghausen, *et al.*, 2004). In the case of local museums that curate archaeological collections, there is a bias towards the display of Roman objects (Swain, 2007: 79). This bias highlights the difficulty for museums to provide context around less visually impressive objects. This is a well-known phenomenon in museums more generally (Monti & Keene, 2013). This report will examine ways in which local museums could respond to this problem through the identification of methodologies for the presentation of objects that seem visually unstimulating whilst simultaneously being difficult to read visually (I will refer to these as *plain-complicated objects*) through providing context with social media. This is discussed in detail in Chapter 7 of the thesis.

T.2 Staff (paid and non-paid) of local museums

The people who are responsible for the day-to-day running of a local museum are also different to other types of museums. Local museums will have a paid staff level of less than the national average of 29 full-time positions, instead, numbers are closer to 26 positions (Tuck & Dickinson, 2015: 11). For most however, this is more likely to be the equivalent of five people (DC Research, 2010: 3) and most will also rely heavily on volunteer support (Lawley, 2003; Babbidge, *et al.*, 2006; Lang, *et al.*, 2006; Travers, 2006; Creative & Cultural Skills, 2012). The National Museum Directors' Council (NMDC) has recognised that there is a significant problem in skills spread within the sector, acknowledging that there is little movement between local museums and larger national and global museums (2004: 10). Despite relying heavily on additional support from volunteers, local authority museums have lower volunteer hours than other types of museums, averaging at

about 144 hours per full-time equivalent, in comparison to around the average for accredited museums of 285 hours (Tuck, *et al.*, 2015: 16).

T.3 Buildings of local museums

Local museums tend to be smaller in physical size than their national or global facing counterparts, such as university museums or national museums (von Wistinghausen, *et al.*, 2004), and are based in older buildings. A much higher percentage of local authority museums are based in buildings older than 1800s than all other types of museums. The impact that this additional responsibility of heritage environment care is an understudied area for the museums sector, but is unfortunately not within the scope of this thesis. Local authority museums also have the highest percentage of freehold responsibility for the buildings within which they are based (Tuck & Mirmolavi, 2015: 5). Figure 56 overleaf provides a more detailed picture of premise type.

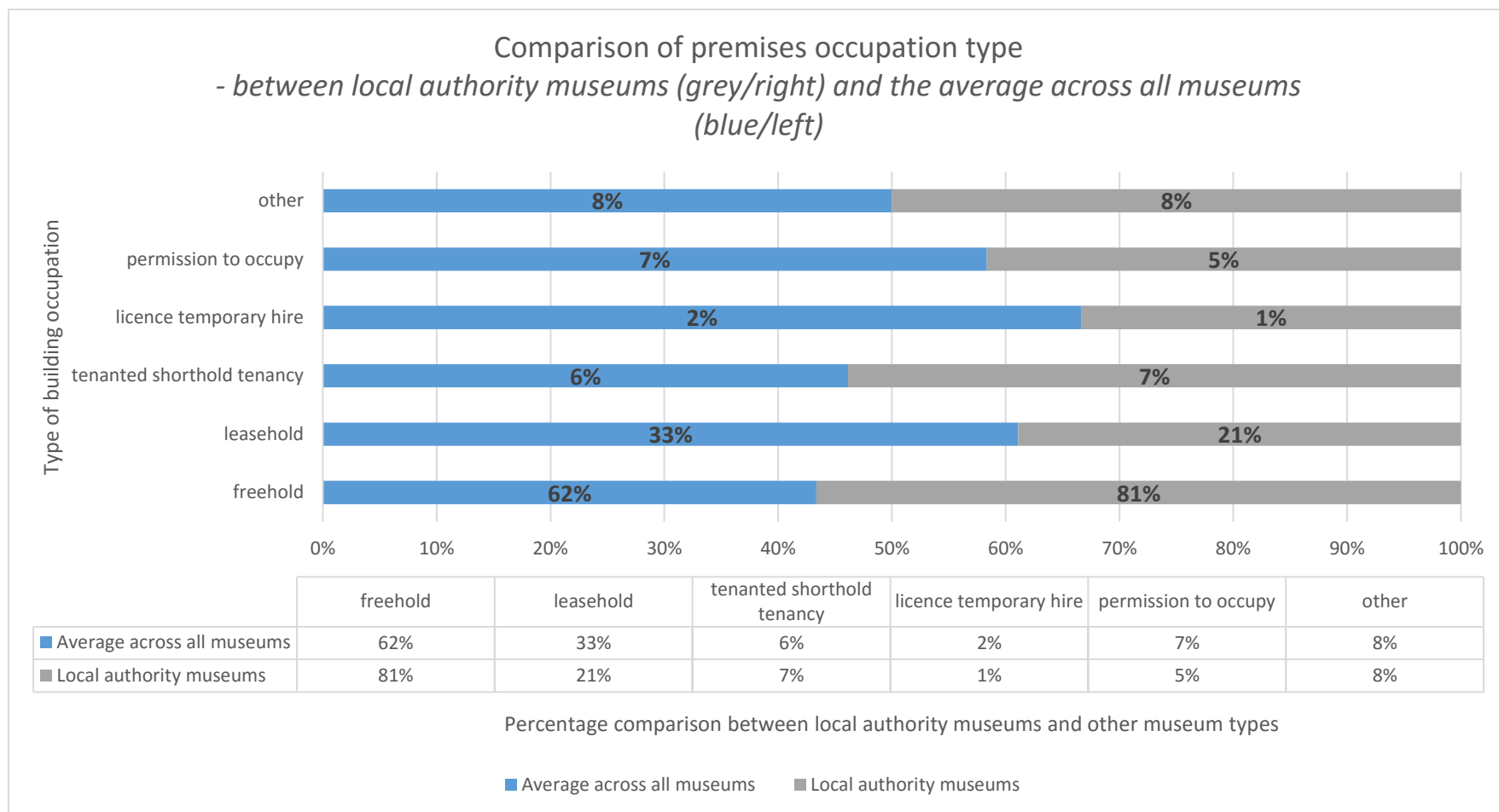


Figure 56 – Comparison of premises occupation type, comparing local authority museums with the average of all museums. Based on Tuck and Mirmolavi, figure 3: Premises occupation by museum type (2015: 5). The data is derived from ACE Accreditation Return 2012 – 2014 (2012a, 2014b: TBR Ref: W1.3/C4).

In order to improve facilities, many local museums have adopted small leisure service interventions, such as shops and cafes (Kent, 2010; McIntyre, 2010). In doing this, local museums are competing against, and therefore being associated with, other heritage leisure experiences, such as outdoor heritage sites which are often criticised for being nostalgic and for placing undue focus on emotional experience (Hewison, 1987: 144; McGowan, 2011; Candlin, 2012: 29-30; Kendall, 2015). Local museums and outdoor heritage centres have developed along a different trajectory (Shorland-Bell, 2000: 5). However, both are struggling to fairly represent collections to multiple audiences. Outdoor heritage sites were established in the 1980s within a governmentally influenced agenda (Lumley, 2005: 17). They represent a model for heritage experience that impacts specifically on regional economic generation (Candlin, 2012). This is because they offer a leisure experience (Chronis, 2012), achieved through provision of facilities such as cafes and commercially focused activities such as on-site shops and paid entertainment events such as live music performances.

T.4 Collections of local museums

Local museums are museums that have collections predominately derived from the locality within which the museum is physically based or that have a strong tie to a locality. These museums will most often have a municipal focus such as a region, city, town or village (Hill, 2011; Munro, 2013). Alternatively, they can focus on a particular theme within a geographically bound area (Hill, 2005; Whitehead, 2009; Wintle, 2010). This could be through a local personality or regionally specific topic. For instance the Gilbert White's House in Surrey houses collections that cover the lives of two nineteenth century explorers as well as being dedicated to Gilbert White, author of *The Natural History and Antiquities of Selborne*. The Gilbert White collection contains objects from the Antarctic and Africa as well as artefacts from the local region. The museum may have a considerable locally derived collection, but it dedicates much of its programming to events and exhibitions relating to ecology, natural history, and Antarctic exploration, inspired by the permanent collections. This does not mean however that it is not a local museum. Gilbert White's House is an example of a museum striving to make connections between collections that have a clear local historical legacy with the expected experience of a museum.

Work on the current challenges for stored collections for museums in the UK has evidenced that small local museums have the largest numbers of access to objects in comparison with all other types of museums including large national museums, specialist museums, regional stores (such as English Heritage managed), and university museums (Keene, 2008: 36). According to the most

comprehensive review of stored collections in museums to date, academic and special interest group research is the most common reason for visits to archaeology stores (*op cit.*). This is in contradiction to the outputs from archaeological projects that result in archaeological archives which have a very strong public engagement element (Swain, 2007: 169-170). Archaeological archives are considered to be a significant mode for public engagement with heritage, but the experience of archaeological archives through local authority museums does not reflect this. The thesis therefore explores ways that local museums can improve the link between archaeological archives and public experience of archaeology. This is achieved by an exploration of the ways in which social media can facilitate connections between people and collections.

Local museums may not be able to participate in the trend for participation in curatorial practice. The professional body that supports national museums, the NMDC, acknowledges a “*cultural divide*” between national museums and local authority museums (2004: 11). The NMDC describes this cultural divide as a growing gap in approaches. National museums remain committed to a traditional curatorial model, whereas local authority museums emphasise objectives relating to education, social inclusion and economic regeneration, in line with local government aims (*op cit.*). These aims mean that objectives for local museums must prioritise inclusion, and this has meant that there is little room for experimentation with new modes of interpretation that rewrite the role of the curator.

In the instance of the archaeological archive, the easy route for increased interactions with collections seems to lie in the creation of resources that are designed with predefined audiences in mind. These resources necessarily are made up of static interpretations of archives, by experts. This approach is common amongst local authority museums, and was one that I participated in many times as a museums practitioner. In doing this, local authority museums are presenting knowledge rather than facilitating the interpretation of information by people. This report argues that, whilst this may seem like the pragmatic choice, there may be other options available through which local authority museums can support the construction of knowledge via individual interpretation.

T.5 Objects of local museums

The term *local museum* is intended to include the staff and volunteers who carry out activities under the auspices of the organisation, but it also refers to the organisation itself as a real-world resource made up of objects in collections held in physical locations. People play an important role in local museums. Local museums above national or global museums are made up of

collections that contain objects as traces of social processes that may not have any materiality (Soja, 2000: 7). These objects can be representative of multiple things (Brown, 2003; Lucas, 2005). Artefacts can act as memes to carry information about memories (Jones, 2007). Without people, objects have no memories and do not provide any mimetic experience (Olsen, 2010: 130-131). People are therefore an essential facilitator in the experience of objects.

Current notions of museums require an additional person, an authority, through which the memory of an object can be unpacked. These experts are curators and conservators, exhibition designers and museum educators. In the case of social history, the authority can seem almost superfluous. A 100 year old photograph of an urban view can be compared to a contemporary photograph with relative ease. Visually familiar signifiers support interpretation of information. A horse and carriage is replaced with a car, a gas street light becomes electric, cobbled streets make way for concrete paving. These are known-artefacts, although not within individual living memory, they exist within community living memory. We remember things through elderly relatives, who in turn retain information from their own older generation. In this way, the lifetime of social memory transcends the limits of our own corporeal lifespans. This kind of memory through artefacts relies on the identifiability of information through interpretation (Hodder, 2012b: 177).

In the case of archaeology, there is less certainty in the translation of artefacts as memes onto views into the past. Interpretation is central to the work of archaeologists. But interpretation cannot occur through the study of standalone artefacts. Instead, it is the interconnectivity of sites and objects that leads to interpretation (Jones & Alberti, 2013: 18-21). The archaeological archive is made up of material artefacts, mixed with interpretations in the form of digital and material documentation. In this way, interpretation is built into the archaeological archive. Local museums receive archives as collections that include within them the voice of the expert. This makes them problematic for museums professionals. Approaches common in the museums sector to open up collections to people and lessen the intervention of museum representatives in the interpretation of those collections are not so easy with an archaeological archive. As Lucas argues, the material nature of the archaeological archive could not lead to materialist interpretation (2012: 138). However, new ways to enable access to archaeological archives need to be identified in order that LAMAs can participate in the new modes of curatorial practice becoming popular in nationally and globally facing museums.

See Appendix X for an extended discussion of the digital object online.

T.6 Audiences of local museums

In the instance of local museums, categorisation of audiences used to shape interactions between people and museums hails from more general societal requirements. Local museums tend to be tied closely to political agendas (Crooke, 2010). Necessarily, there must be a focus on people rather than on collections. For local authority managed museums, several levels of agendas, municipal, regional and national, form guidance for focus of specific groups of people (Black, 2010).

The significance of audience focus in the museums sector means that museums must study people (Appleton, 2006: 267). This enables the determination of the classification of visitors at which to aim programming and activities (Hooper-Greenhill, 2011: 374). Museum visitor studies, also referred to as audience studies or audience research (*ibid.*), provides methodologies for the close study of people's engagement with museums (Voase, 2013). This is achieved through analysing and interpreting behaviours in order to ensure categorisation is appropriate.

Whilst advocated within the sector that study of audience must occur as this is central to the purpose of a museum (Hooper-Greenhill, 2012: 522), for local museums there is an association with local government agendas (Sandell, 2002). This has led to an overreliance on visitor categorisation, which is obstructive to successful engagement with people through the Web. For the purposes of categorisation for local museums there is a tendency today to discuss people with whom museums intend to engage in terms of communities (Barrett, 2011). The issues surrounding this re-categorisation are discussed in further detail in Chapter 3 of the thesis.

In the museums sector, audiences are conceptualised as groups with static features (Duncan, 2003; Davies, 2005). These groups are used to design aims and objectives for communication of particular messages. Categorisation is based in the idea of market segmentation (Black, 2005: 11). This can be designed based on characteristics such as demographics (Dawson & Jensen, 2011), but also on less permanent features, such as motivations for visiting. This thesis investigates the need to examine current approaches to programming design for local museums, which currently relies heavily on categorisation of audience. For Web-based interactions, the popular categorisation of 'users' (Peacock & Brownbill, 2007; Marty, 2008; Padilla-Meléndez & del Águila-Obra, 2013) introduces an added level of complexity.

Most popular in England and Wales are the National Readership Survey (NRS) social grades which are used by museums to understand types of visitors (Watson, 2015a). In addition to this, established visitor studies approaches classify audiences by motivation. For example, a person's

reason for visiting a site is recorded (Kirchberg & Tröndle, 2012; Sheng & Chen, 2012). In North America, the established approach to encouraging engagement with archaeology collections in LAMAs has been embedded in community archaeology (Marshall, 2002; Moser, *et al.*, 2002), with emphasis on social construction of reflexive experiential heritage (Scham & Yahya, 2003), which includes personal experience of archaeology (Schmidt, 2005). In the USA and in Canada, archaeology is closely aligned with political action (McGuire, 2008: 36). In addition to this, the presence of communities such as indigenous and descendant communities (McGuire, 2008: 88) has meant that museums must allow for self-definition of community (Simpson, 2001) and to accommodate communities that are dynamic in nature with temporary participation based on self-professed affiliation (Mackey, 1999: 46, 60). The top-down approach of museum management has already been criticised by commentators in the sector for excluding to communities (Healy, 2003: 17), but there is less observation available on the impact of this approach on technology uptake. The interviews carried out in the first phase of the research are intended to fill this gap in knowledge.

T.7 Governing bodies of local museums

When interrogating people's notions of the local museums, there seems to be a preference for the more traditional idea of museum purpose, namely preserving heritage and holding and presenting collections. But there is also recognition of the importance of contributing to economic stability and in the role that a museum can have in personal advancement (Trevelyan, 2012). Analysis of reports on expectations of museums points to individual level engagement, such as promoting wellbeing or providing a forum for debate, is interpreted as less significant as societal level impact (BritainThinks, 2013: 14). This situates the local museum that we imagine today as being community and individually focused but after societal level challenges. User expectations do not match current sector objectives. In a recent workshop, museum visitors consistently changed the sector-provided description of a museum from "*Creating knowledge*" to "*Sharing knowledge*" (*ibid.*: 4), which mirrors societal shift in expectations of institutions not as holders of knowledge but rather as facilitators of knowledge attainment through making information available for active interpretation rather than via arbitration of information to a passive audience. Promoting wellbeing and happiness is far down the list as a priority aim for museums, and was interpreted by participants as "*entertainment*" (*ibid.*: 5).

For instance, entertainment has long been purported as being a key aim for museums, but is not fairly representative of the complex offer that local museums can put forward for the support and development of individual wellbeing. The interpretation of the study's participants of wellbeing

and happiness as entertainment is illustrative of the ‘national’ effect, where the emphasis on high-quality facilities such as cafes and shops obfuscates the true potential of museums as places to engage with individual welfare. In a recent statement about the future for local authority museums, Orna-Ornstein, the Director of Museums for ACE, writes about the importance of a local museum in being clear about the offer that it makes to meet local needs and local authority priorities. He asks:

“Does the museum meet a real community need, providing valuable services that enhance the lives of local people? Alternatively, how does the offer compare to the local cinema or National Trust property? Is the café somewhere local people will prefer to Starbucks and is the shop comparable in quality to high street venues?” (2015)

In this implied successful model towards which local museums could strive, Orna-Ornstein is in fact highlighting the key issue faced by local authority museums, that expectations are impracticable within the remit of the traditional model of a museum. The questions above compare the local museum to other high-street venues, such as shops and cafes. This is selling-short the potential for an institutionally grounded but community based experience of a local museum. Local museums could endeavour to offer a mixed portfolio which could include facets as outline above, but these amenities can be add-ons and do not necessarily need to be confused with the essential need of the museum to provide significant societal value (Janes, 2009: 120). The alternatives to this MA endorsed model are discussed in Chapter 5 of the thesis.

The discussion above illustrates how changes in support for local authority museums has led to a crisis. The reasons why this is the case must be examined in order to design a methodology for the adoption of social media by local museums. Local museums must engage with the Web in the same way that they have a responsibility to engage with other major modes of identity formation. Much of the crisis of local museums stems from a misconception of the opportunities of the local museum by the institutions that fund them, but also by the public that uses them.

T.8 Reasons for the mis-conceptualisation of local government museums

A major focus of this report is the current mis-categorisation of local museums as smaller versions of nationally and internationally facing museums. As a response to the current mis-categorisation of local museums, this report identifies three key misconstructions that are particularly damaging for local museums. The findings above indicate that in use of the Web, there is currently a one-size-fits-all model of a local museum. The discussion within this report will highlight some of the key misnomers of the current model. These incongruities are constructed on assumptions about

local museums. The resultant incompatibilities are translated directly across from models of national/global, universal museums use of the Web and are based in historically-derived notions of museums as knowledge creators.

At a local level, libraries, archives, and galleries are perceived by governing bodies to have clear societal objectives in relation to the safeguarding and promotion of heritage (Robinson, 2012; Locality, 2013; DCMS, 2014). This is particularly the case for local libraries, archives, and galleries that are managed by local government, and online activities match these objectives. For locally focused, smaller museums, the clarity of goals has been less forthcoming. However, in the use of the Web, this lack of clarity is due to the museums sector perpetuating myths and therefore mis-characterisation pertaining to the idea of a static, monolithic museum (Witcomb, 2003; Marstine, 2008). Current popular notions of a museum are contradictory to the actual on-the-ground ambitions of smaller, locally facing museums. This report considers whether local museums are falling behind other types of arts and culture institutions in modernising their objectives to match societal needs with their own identified aims when using the Web. This is realised through theoretical analysis of literature from the UK Government, local government, and the museums and cultural heritage sectors combined with research from museums studies and heritage studies.

Museums are reacting differently to the adoption of technologies than other types of arts and culture institutions and consequently they are falling behind in advancements in use (MTM London, 2014: 30). For local museums, which rely heavily on add-on funding to support activities away from core collections and buildings care, this could be because they find themselves within a self-perpetuating cycle of designing impacts to fulfil evidence frameworks tied into grant funding. In many cases, the funding is used for the design of impacts, which in turn are used to identify future impacts for future funding.

For local museums, relevance within this system of organisations must be re-determined. In the case of local government-run museums, this is an essential component to diminishing the current crisis within which they find themselves. Local authorities have responded positively to propositions to provide parts of essential local government services such as social support advice and access to information on authority managed facilities. To date, organisations similar to museums have been used to enable this diversification (Moseley, *et al.*, 2004). For instance, this has proven to be a particularly easily implementable option in the case of libraries (Medway Council, 2015). Libraries have been increasingly opening up their doors to community group activities. As an extension to this, many arts and culture organisations have been encouraged by local authorities to transfer to community managed status. See for example the Pub is the Hub

initiative which combines local community services with public houses as cooperatives (2013). For museums however, augmenting services with other local government responsibilities or embedding community-run undertakings has been less popular (Jones & Mean, 2010: 78-79). As a consequence many local authority museums can seem old-fashioned in comparison to libraries and archives that are under the control of the same local authority. Social media can offer a way for local museums to move into a new space within which to engage with individuals.

On the Web, local museums could be a deviation from the more traditional model of a museum. Appendix T is a report on the different approaches common in the characterisation of a local museums that impact on the use of social media. Appendix T reviews several reports that emphasise different aspects of a local museum's character. These include: programming, staff (paid and non-paid), buildings, collections, objects, audiences, and governing bodies. The findings from this report identify three major mis-characterisations of local museums that are impacting on the relationship between local museums and the Web.

1. Under-estimation of the role of governance
2. Universalist approach
3. Over-emphasis of place

These three mis-characterisations impact directly on the capability of local museums to use social media. This appendix has discussed these in turn above.

Recent changes in the heritage agenda in the UK represent a significant possibility for the re-orientation of local museums back towards local needs. Growing recognition of the constructedness of heritage as an activity that results in narrative building means that local museums are increasingly in a position to contribute to the development of a new theory of heritage. UNESCO defines heritage as "*cultural property*" (1968: Article 1a). But heritage is a manifold device for engaging with our past, present, and future and is made up of more than physical cultural property (Vecco, 2010). The UNESCO convention for recognising intangible heritage acknowledges the complexity of heritage (Ahmed, 2006: 297). But support of heritage within local museums tends towards a mono-vocal, authoritative model of heritage, as described in previous chapters. Holden and Hewison identify a positive bias in governing bodies' recognition towards museums as heritage facilitators over the rest of the heritage sector (2014). This is evidenced by the mechanisms for core funding to heritage organisations as it is currently provided by the UK Government. The example of the 2010 Spending Review in which national museum

funding was protected over Natural England and EH funding illustrates how this is meted out in backing to organisations (SWFed, 2014: 6).

Critical engagement with local heritage by cultural heritage organisations has involved the staging of interpretations of heritage that are tied to single narratives. This has particularly been the case in the online communication of local museums. The actual expression of heritage on the Web as supported by local museums seems to be biased towards certain expressions of identity through particular cultural property and aligned to popular history. Heritage expressed online through local museums is generally aligned to the idea of heritage that has been articulated by cultural heritage organisations like EH. This has been aligned closely with narratives of national identity (Bradburne, 2000: 384).

This kind of national facing expression of heritage online could be described as meta-heritage; a heritage constructed from meta-narratives. For example, this interpretation of heritage has been typically expressed by EH through the built environment as representative of particular aspects of society, such as royal castles, grand historic houses and gardens, and through histories of nationalism such as historic battle re-enactments (Walsh, 1992: 77). Heritage experience such as this, that is nationally rather than locally focused, is stagnating for local museums and exacerbates the crisis of relevance. As described earlier in this thesis, the financial support for local museums is dwindling and this is in contrast to the continued support of museums that have a national or global outlook. It is clear if local museums are to align goals to heritage, a new theory of heritage is required that moves away from the old-style model as outlined in this thesis. There is a clear need for a more nuanced understanding of heritage as a phenomenon that is critical to our everyday lives. The established notion of heritage as recognised by UK Government does not currently fairly incorporate community experience of history or archaeology, and perpetuates narratives designed by authority.

In providing context for heritage, local museums enable people to move towards reconstructed memory that is individually recalled. Local museums can provide a space online to engage with heritage that is away from tourism and from traditional notions of place. In this space, heritage can be constructed collaboratively or individually, and can be experienced away from the historical trajectory favoured by tourism. Finally, local museums can provide means for people to overcome barriers to engagement by transcending the opinion of heritage as a confirmation of an individual's social capital. In order to support this, local museums would need to give precedence to individual and community requirements, negotiating the requirements of individuals and

groups so that both can be accommodated, and support unofficial practices of heritage which operate at a local level to facilitate social action.

Local museums could be contributing more actively in the performance of heritage on the Web by questioning how heritage itself relates to things like history and archaeology. Social media provides a way for local museums to facilitate this kind of heritage experience, and this thesis has outlined how to better define and then solve problems that local museums face in moving towards more strategic approaches to heritage experience online. When considered from the perspective of the crisis of the local museum, this could lead to local museums supporting communities to use heritage for themselves to benefit their own needs. This is particularly challenging currently for local museums that are tied closely to local authority objectives. Currently, due to approaches established during the earlier phases of Renaissance for local museums, heritage is generally used as a way to categorise communities in a binary manner. Communities and individuals are seen as being either those who need to be enabled to access heritage or those who are already accessing heritage under their own steam.

In order to overcome this, local museums must develop co-designed approaches to heritage experience in order to design social media use that is collaboratively conceived by the communities that local museums serve and the local museum itself. These approaches can only occur at an organisational level and must be iteratively planned as local museums must have aims that are designed to serve their own unique circumstance. The three mis-characterisations are described in detail below.

T.8.1 Under-estimation of the role of governance

The UK Government has been supporting the work of local museums as socially responsible entities (Tlili, *et al.*, 2007), and this is increasingly tied into the ways in which museums secure their funding (Gordon & Stark, 2010: 3.a.1-3.a.3). The idea of the socially responsible museum is an addition to the ICOM definition of a museum (Mensch, 1993). For local museums, social responsibility must be key to strategic aim setting for social media use. This is highlighted by the fact that a high proportion of local museums have a close relationship with local government. Even those not directly managed by local authorities will have close ties, particularly in regards to resource availability and agenda setting. Appendix S discusses this in further detail. However, actual capacity of the expression of social responsibility by local museums on the Web is diluted by the need to fulfil other requirements.

In 2011, the UK Government declared that under the new funding framework for regional museums, collections were only useful when people were able to relate to them (Morris, 2011: 6). Under this definition of a museum, when creating content for the Web, local museums could focus not on objects of value that is aesthetic or derived through their representation of a national or global narrative. These kinds of objects do not tend to make up a significant portion of the local museum's collections (Belk, 1995), and so local museums would seem to be therefore in an enviable position in regards to potential facilitation of building relationships online between people and objects.

In addition to the move away from objects to people, much work has been carried out in the past ten years to broaden museum audiences (Kawashima, 2006; Travers, 2006; Keene, *et al.*, 2008). Local museums are no exception to this. However, current governance mechanisms mean that it can be difficult for local museums to ascertain who *the people* are in the context of audiences of locally focused collections being shared online.

Local museums are falling behind in the trend to improve audience engagement through providing more engaging experiences online. Those run by local government particularly are also struggling to adopt new technologies amongst high levels of expectancy (Fusion Research & Analytics, 2012: 6). The governance of local museums clearly impacts on the abilities of these organisations to enact the imagined museum on the Web. This also obfuscates the actual role of a local museum and puts local museums under pressure to stage conflicting experiences online.

T.8.2 Universalist approach

Today there is a lack of clarity in expressing the purpose of local museums in contemporary society on the Web. One reason for this is that in their use of the Web, local museums do not fit with our imagined museum. The notion of a museum and the purpose it serves within society has been evolving since collections of curiosities became popular in the seventeenth and eighteenth centuries (Impey & MacGregor 2001: 250-55). In seventeenth century Europe, numbers of museums had increased rapidly as an attempt to manage a "*crisis of knowledge*" (Findlen, 1994: 50). This was driven by exotic objects being collected from the rest of the world that could not be categorised as standalone artefacts in the way that already known items could be understood. The need for encyclopaedic museum collections arose from this (Burke, 2000: 109). It could be said that museums arose from exploration and expansion away from the regional or local.

The early museums were tied closely to status and to the demonstration of this through knowledge (O'Neill, 2004). In the early nineteenth century museums tended to be collections of

objects of scientific and cultural interest, often available to view under appointment only (Watkins, 2007; Russo & Watkins 2008). Today many different forms of museums have evolved out of different societal needs. The encyclopaedic museum exists in a more nuanced form and remains the predominant type of museum (Cuno, 2011), particularly present in the public imagination. Most encyclopaedic museums are national museums (O'Neill, 2004). These tend to be the larger organisations in the museums sector as well as being the most prevalent in the public imagination. The Universalist approach to a museum prioritises collections over other factors as a method for characterisation. These kinds of museums operate at a societal level, necessarily prioritising global and national narratives over local community or individual needs. There are many other museums however that have more modest aims and these present a challenge to the definition of 'a museum'. Locally focused museums are one such deviation.

For local government museums, there has been an escalation over time in defining purpose not through collections, location or origins, but by means of a museum's governance. Online, this is particularly evidence as local museums use existing local government digital systems for their online presence. Social media offers a way to free local museums from this infrastructure.

The removal of charging for entry to national museums is representative of a focus of the UK Government on national museums. This focus on national museums is evidenced also in the London bias of ACE funding which has recently become a focus for debate within the sector (Stark, *et al.*, 2013). This focus has had a knock-on effect for local museums, as it informs public assumptions about local museum services more generally (Kent, 2010; Woodward, 2012; McCall & Gray, 2014). This can lead to disappointment as national museums and local museums use of the Web cannot be comparable.

The perspectives of museums as encyclopaedic stores for human activity are damaging to local museums. In their online presence, whilst the collections that a museum cares for are an important factor in characterising a museum, they cannot be a standalone method for definition. In the case of HCT for example, one museum that it manages, the Andover Museum of the Iron Age, cares for exceptional archaeological collections derived from the region. This museum must simultaneously fulfil a function that is defined by the location of the museum within in the town of Andover. The museum dedicates considerable gallery space to the social history of Andover and the environs, and regular temporary exhibitions have a broader regional focus. The museum's use of online presence would need to fairly represent this complex nature, and it could be argued that this would require considerably more resource than the expression of the encyclopaedic museum online.

Museum studies discourse tends towards analysis of the contribution of national and universalist museums on national and global identity (Karp & Lavine, 1991; Kaplan, 1994; Bennett, 1995; Boswell & Evans, 1999; Farago & Preziosi, 2004; Cuno, 2009; MacKenzie, 2009), the use of national collections as educational resources (Kreps, 2003; Corsane, 2005; Knell, *et al.*, 2007) relating to global themes, and the impact of large museums on national level economy (Frey & Meier, 2006; Travers, 2006; Museums Galleries Scotland, 2010). These societal contributions are evidenced through well-established qualitative and quantitative measurement frameworks that rely on categorisation of audiences that are not active or mutable (Museums, Libraries and Archives Council, 2005; McMaster, 2008; Stanziola, 2008; Belfiore, 2009; Newman, 2013). Nationally and globally focused 'authorised' museums are perceived to be sanctioned or endorsed on a national and often also international level and are assumed to have the authority to make statements about the history of humanity that they preserve and present. But large museums like national museums and museums with collections that are designated to be of global significance make up a very small proportion of the overall number of museums in the UK (ACE, 2015b: 10).

In the age of the Web, the model of the museum in which there exists a hidden space for the production of knowledge and a public space for the offering of that knowledge for passive consumption is no longer viable. This does not mean however that museums are able to overcome the intrinsic issues surrounding the relationship between institution and individuals.

Collections are an important part of the essential character of a museum. But for museums today, there has been a shift in focus from the collection of objects, to the visitor's experience of those objects (Jafari, *et al.*, 2013). As humans we collect things (Elsner & Cardinal, 1994). We do this because we believe that objects teach us about ourselves (Pearce, 1998). In comparison to the earlier notion of an object having fixed meaning, in today's museum there is no one single message for objects to impart (Candlin, 2008). Objects can have overlapping meanings for the person who experiences them (Silverman, 1995). In the case of the archaeological archives in local museums, a review of interpretation within local museum websites seems to indicate that it has been challenging to deal with this complexity when attempting to share information about collections on the Web. The idea of a multi-vocal object is well-established within archaeology (Marshall & Gosden, 1999; Jones, 2007; Ohlsen, 2010; Jones & Alberti, 2013). Methodologies for incorporating multi-vocality into interpretation of archaeology is an accepted approach (Moser, *et al.*, 2002). However, there is an apparent gap between the nuanced approach to meaning-making for archaeology, apparent in community archaeology work (Marshall, 2002; Moser, *et al.*, 2002),

and the less participatory and far more static approach to archaeological archives within local museums.

Online, local museums are still predominately acting as authoritative voices of knowledge for understanding the world, despite the fact that the many different types of museums that exist today that do not fit into this role. This mono-vocality is not necessarily present in a local museums real-world behaviours, but breaking free of this approach has been harder to achieve on the Web. Social media could provide a potential way to support this need for multiple meaning of archaeological collections.

Local museums struggle to fulfil expectations of the museum as an institution which has an authoritative voice (Woodward, 2012: 17). A particular manifestation of this is that local museums are under pressure to contribute directly to the local economy. The model for blockbuster exhibitions centred on national themes has been gaining support in the past twenty years (Frey, 1998). This is putting pressure on LAMAs to deliver on big themes. This model has forced LAMAs to design topic-based programmes that their collections are often ill-suited to, or more importantly which assuage the need to evidence economic impact through visitor attractions, but at the detriment to the local experience of the collections. I experienced this leveraging of collections into national themes several times in my career working in local museums. But the figures from exhibitions in this model tell an interesting story. A blockbuster exhibition will generally bring to a museum a visitor base made up of 30% non-local audience (Makert & Lord, 2014: 30). It is clear that the local audience is still integral to any exhibition's success.

The drive to establish the national significance of local collections within local museums could be seen to be financially motivated. However there is a conceptual shift here as well, and this must be examined in more detail. This is an issue at the heart of the local museum crisis: that the governing bodies are failing to see the potential of the museum as a way to engage with local communities and with local agenda through heritage and are focusing instead on trying to remodel local museums as nationally significant. Whilst this is not necessarily a negative behaviour, it is not appropriate to use a national museum mould.

In the discipline of museums studies there is a growing belief that museums could move away from tourism and look instead for an approach where the museum is a: "*critical site of public debate*" (Pollock, 2007). This approach moves away from the idea of a museum as a location where an authoritative voice frames heritage for the visitor and this could encourage LAMAs to move away from focusing on big themes. This is not evident in the behaviours of local museums,

particularly in their use of the Web. This seemed to be the case at HCT, as paid staff struggled to fulfil governing body requirements whilst simultaneously telling a local story. This is discussed in more detail throughout this thesis.

T.8.3 Over-emphasis of place

The term local museum itself seems to refer to a museum that is geographically located. However, this is not at all as straightforward as it may seem, particularly on the Web. The concept of place, as defined by Agnew, is made up of geographical locations where social actions occur (2011: 317). Today, place and community are increasingly separated. In contemporary society, much focus is being placed on the development of social relationships into more fluid interactions. This fear of the loss of place is grounded in Heidegger's ideas of modernity (Malpas, 2012: 63). Terms such as *topos* (the experience of place) and *heimat* (the place of origin), attempt to describe place focus on the idea of place as something that has spatiality (Vallega, 2003: 31). But in today's Web-enabled world, social connections can be established, and continue to occur, away from place (Davis, 2006: 184).

To date, local museums have been focused on a sense of place that is made up of perceptions of people within, but also external to a location (ACE, *et al.*, 2006: 5). This has particularly been the case for cultural tourism (Smith, 2007: 96). Cultural tourism is a key focus for most local authority managed museums, particularly for regional and municipal museums (Skyrda, *et al.*, 2012: 10-11). However, this kind of tourism relies heavily on notions of place that are more traditionally bounded by geographically defined locations. The fair representation of this can be problematic for local museums due to the conflicts of interest between the perceptions of communities of place, and contrasting notions about significant heritage between local government and local communities (Brabazon & Mallinder, 2006; Grydehøj, 2010).

Instead of focusing on place, a shift of emphasis to space may provide a way forwards, particularly when engaging with the Web. Space is not necessarily bounded geographically, but is a communally constructed location (Agnew, 2011: 324). As a response to the impending changes to Renaissance, which provides core funding for local museums, local museums requested that mandatory goals in a national strategy for museums could include "*public benefit and impact, including deep audience engagement*" (MA, 2011: 6, 2.7). In real terms, this has often been misinterpreted by UK Government and by regional bodies managing local museums as a need to offer an entertaining experience. For local museums, an emphasis on location offers a logical focus for this experience, and place-based tourism predominates. In the cultural heritage sector

commentators believe that the aims of local museums have shifted their attention to providing experiences of heritage that are focused on providing leisure activities (Bryan, *et al.*, 2012: 134). But local museums are actually struggling to achieve this kind of offer. Those that do attempt to improve their entertainment package often find themselves in the middle of a debate about the dumbing-down of the museum experience (Barr, 2005: 105). The multi-layered infrastructure of social media could support the expression of the complexity of local identity that is made up of more than a physical place.

Increasingly popular within the management of urban space is the notion that regionality cannot continue to be bound so rigidly to place (Agnew, 2013). A particular view, argued by Amin, purports that in this Internet enabled, networked society, spatially bounded approaches to political or economic development can no longer occur (2004). Instead, a new way to manage political infrastructure and communication must be identified that is made up of heterogeneous relational networks that have differing geographical reach. This has been a popular standpoint in cultural geography (Wills, 2012; Agnew, 2013; Goodwin, 2013; Harrison, J., 2013; Zanon, 2013; Allen & Cochrane, 2014; Walsh, 2014).

This networked approach has been used for the regeneration of cities (Shelton, *et al.*, 2015), improvements to urban infrastructure (Young & Keil, 2014), the use of place for eco-tourism (Fourristal, *et al.*, 2014), and for improving protection of environment (Wilcock, 2013). Local museums have not yet contributed significantly to attempts to find ways to incorporate forms of regional identity into approaches to supporting communities in the experience of regional services online.

The coming together of the concepts of place and space with the Web is an augmentation of Graham's 1998 prediction of the merging of analogue and digital space (2004: 342). The Web exacerbates the complexity of space for social interactions (Malpas, 2008). Whilst there are many projects that bring technology and people together through museums, in order to experience local heritage, there are not many instances of the acknowledgement of the need to incorporate flexibility into supporting social relationships with space away from place. This is because it is not merely a simple case of negotiating the relationship between people, technology, and place, as is currently the case with many digital projects in museums (McCarthy & Ciolfi, 2008).

Instead, the idea of place itself must evolve to incorporate the gradations of relationships with space that occur outside of place. Museums can broker this relationship. One potential area of contribution is the development of a new metaphor for conceptualising the Web. Local museums

Appendix T

could provide a new conceptual scaffold for interpreting the Web through the metaphor of curation.

Appendix U Report: Threats to local museums

Local museums are suffering from several issues that are reducing their ability to have a positive impact on people's experience of heritage. There are two major interlinking symptoms and these are often misidentified within the sector as being problems that can be solved by treating the symptom. However, these are not problems in themselves. Instead, they are the reactions to an underlying crisis of confidence in the role of local museums within society, and the contribution that archaeological archives within local museums can have at a community and national level. Most activities in LAMAs relating to social media use have been focused on reducing the pressures on local museums. But these pressures are merely symptomatic of a more deeply rooted problem. The underlying issues are discussed in the main body of the thesis. This report outlines the two major symptoms that are manifesting within local museums. The resultant awareness of the underlying issues, as discussed in the thesis, would alleviate the cause of the pressures described below rather than merely reduce them in the short term.

U.1 Lack of mandatory support of core funding from government

All types of LAMAs, those managed independently as well as by local authorities, are struggling to gain support in this time of austerity, and are experiencing a decrease in access to funding generally. Local authority museums are the hardest hit (Newman & Tourle, 2011: 7) as described above. The funding of a museum has a significant impact on the mission of a museum, as Marstine comments: *"All funding sources demand something in return."* (2008: 11). However, funding is not the essential factor in defining the purpose of a museum. Major support for LAMAs comes from local authorities and also from grant-making organisations such as the Heritage Lottery Fund, English Heritage, and the Sainsbury Family Charitable Trusts. Several of the grant-making organisations recommended as key funding options by the AIM are experiencing a reduction in available funds (2011). This is in addition to the 40% cut in core government funding since 2011 for local authorities which is expected to increase (Local Government Association, 2014a: 4). Local authority museums are at high risk in comparison to other types of museums as their affiliation with local government blocks access to many of the alternative funding streams that independent museums are able to apply to and more significantly they are at risk because funding for museums is not mandated at a local government level. In many cases this has led to LAMAs services experiencing a loss in confidence from the local authorities that fund them, where local authorities are making hard choices about funding cuts across all services. Often, these local

authorities have found that they are making comparisons between the impacts of museums against the impacts of other services such as waste collection (Mansfield, 2014).

Commissioning is of increasing popularity this is because the level of specialism in local museums is greatly reduced due to reductions in staffing levels (Lynch, 2011; Evans, G., 2012, 2013). It is also preferred due to pressure on local museums by governing bodies to deliver on objectives that are of increasing complexity (Tlili, *et al.*, 2007). These objectives often require several specialisms for delivery that are no longer available in-house (Fusion Research & Analytics, 2012: 6). This increased reliance on commissioning is evidenced by interviews carried out at HCT, discussed in Chapter 4, 5, 6 and 7 of the thesis and in Appendix I and Q in this volume. It can also be seen in analogous studies, such as Morse and Munro's recently published findings from interviewing paid staff at regional museums services about commissioning trends (2015).

U.2 Reduction in development funding streams

Funding streams for LAMAs are impacting on priorities, as well as impacting on people's attitudes to the purpose of the model of the regional museum and municipal museum more generally. In 1997, the New Labour Government provided substantial injections of funding into locally focused museums in the UK but the funding had specific objectives tied to each grant. Museums such as small regional museums and municipal museums in receipt of the funding were required to fulfil particular audience needs, and were beholden to targets for visitor figures, often relating to audience type (Candlin, 2012: 29-31). The MLA funding for local museums was organised under the umbrella initiative of Renaissance in the Regions which was established in 2002 (re:source, 2001: 6). Community cohesion was a key aim for local government and it was identified as being based on "*local experience*" (Crooke, 2007b: 47). In 2012, ACE took over the responsibilities of the MLA (ACE, 2011). This represents the most substantial shift in the way in which the UK Government strategically supports museums. It is generally accepted within the museums sector that the major funding programme for local museums has been the motivation behind many of the developments within these smaller organisations in the past fifteen years.

In England, under the New Labour Government, and more recently with the Big Society agenda for the Conservative Party, local museums were seen as being actors for political party aims (Belfiore, 2012; Hesmondhalgh, *et al.*, 2015: 143-145). Specifically, regional and municipal museums, managed by local authorities were seen as tools to improve social participation. As such, from 2000 until 2012 money was pumped into local museums through the UK Government's Renaissance in the Regions scheme (Watson & Sawyer, 2011: 17-18). Renaissance in the Regions

focused on improving the support available to museums in the regions (Higgins, 2010; Museums, Libraries and Archives Council, 2011; Culture, Media and Sport Committee, 2010a, 2010b; Hope, 2010; South Western Federation of Museums and Art Galleries, 2014; Kendall, 2013b). Through Renaissance, substantial funding was diverted towards local museums. In the 2000 to 2008 period there was a 300% increase in Government funding for the Museums, Libraries and Archives Council (MLA) (2012: 8). The MLA had responsibility for the add-on funding of local museums alongside core local government funding. As a result of this financial injection, improvements to visitor numbers can be seen in the local authority run and independent museums across the country for this period (Local Government Association, 2013b). It has been reported that this rise in visitor figures is due to improved public engagement programmes (Kendall, 2013a). However, the Renaissance in the Regions programme with its explicit link to central Government aims has in many ways exasperated the problem of unclear ambition for museums.

Short-term, this injection of funding has led to a rise in visiting numbers generally for museums in the UK, but there have been fears within the arts and cultural sector from the outset that this is not sustainable (Renaissance Review Advisory Group, 2009). In comparison to other types of museums, negative changes are also occurring in additional funding sources. Figures from a recent ACE funded study show that in the past few years, the percentage of Heritage Lottery Fund support for local authority museums has decreased rapidly in comparison to other types of museums (Tuck & Mirmolavi, 2015: 30). I calculate that between 2008-9 and 2013-4, the funding spread has changed from 51% share compared to all other types of museums, down to only 14%. Figure 57 overleaf provides more detail of this decrease.

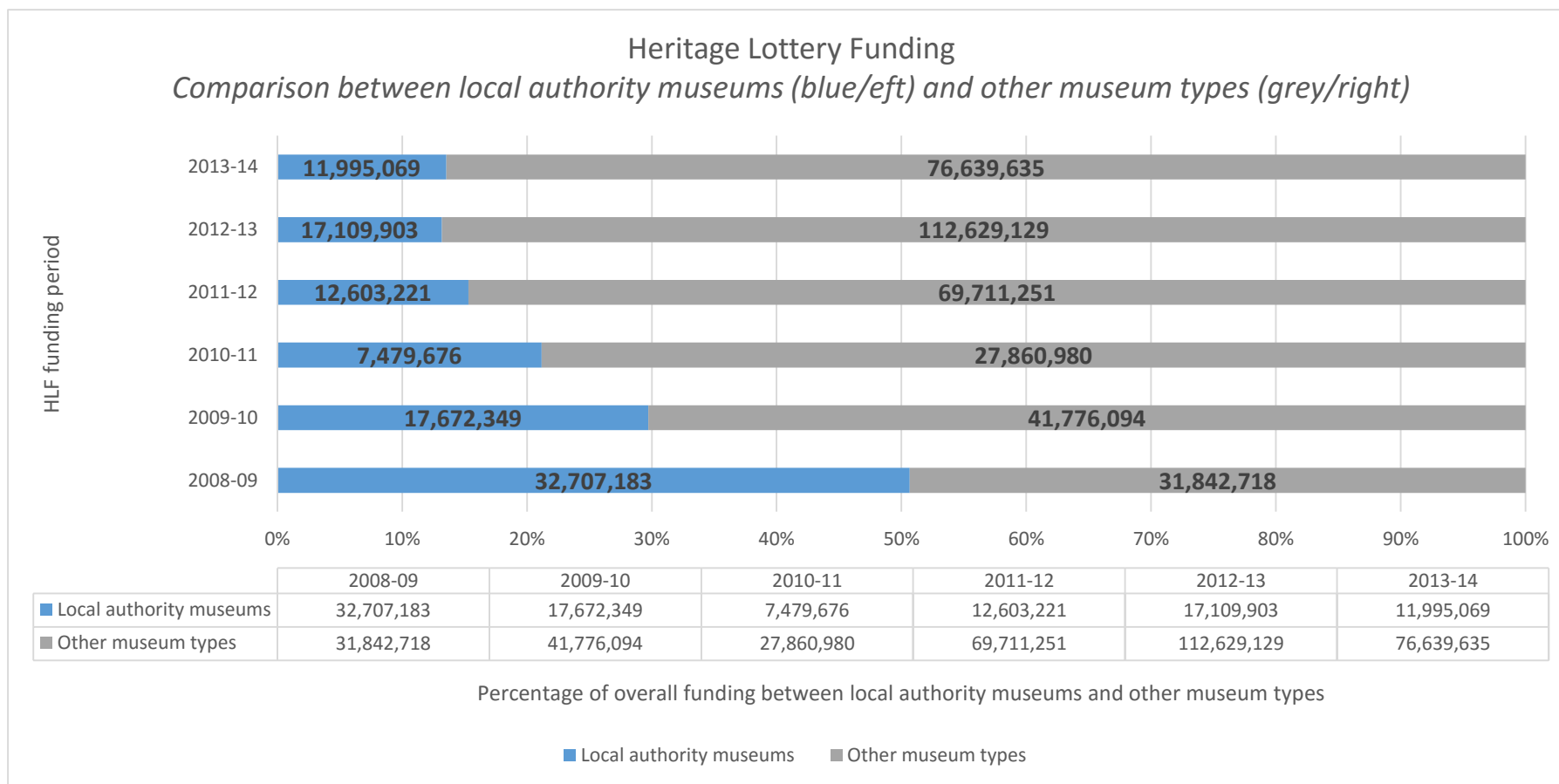


Figure 57 – Changes in Heritage Lottery Funding to local authority museums between 2009-10 and 2013-14. Compared with other types of museums. Based on Tuck and Mirmolavi, figure 13: HLF funding to museums 1995/96 – 2013/14 (2015: 30). Figures are adjusted per inflation in the original figure.

Appendix V Second reflexive researcher statement

This is the second reflexive researcher statement in the series that accompanies this thesis. This statement provides a point of reflection partway through the research and is an opportunity to assess the methods being used against the findings so far.

As the research progressed, I was also learning how to be a researcher. I was involved in many small projects during the course of my time as a postgraduate, and not all are directly relevant to the research process. However, there are a few experiences that I feel impacted directly on the work that I was doing for my thesis research, and I have described these below.

A few months into the research, I began to take time out every two or three months to reflect on my experience so far. I tried to keep fieldnotes whenever something happened outside of the PhD research that I felt would impact on my approaches and findings. I have not included all of these reflections in this appendix, but instead have selected some of the most pertinent reflections as a way to illustrate how my personal learning journey was combining with my PhD research.

V.1 Scope of research

At the beginning of the research process, I had intended to study HCT as a whole organisation, to study the use of the Web in relation to all of the collections, and to meet with staff at the community museums and outdoor heritage sites. I intended to collect data about attitudes and approaches to Web use and to identify barriers and opportunities for change. I began to work with staff who were responsible for the archaeology stores due to the already established relationship, and quickly found that a consideration of the whole organisation would be impracticable within the timeframe and as a lone researcher. I was struck particularly by the challenges that the first weeks of research at the organisation indicated were present. I also felt that my experience as an archaeologist and working in local museums placed me in a unique position to identify insights through the fieldwork. I concluded that the potential of focusing on a narrower topic would contribute more to the field of study. I have felt as the research has been developing that it would be beneficial to remain focused on the archaeology collections, but to extend the scope to meet with paid staff and volunteers at the community museums and heritage sites.

V.2 Interdisciplinarity – key influencing theories

Working with different bodies of literature was challenging. After some false starts, I compartmentalised my reading, taking one topic and then reading and analysing the texts around that topic from different perspectives, approaching each perspective in turn. I would then attempt to consolidate or synthesise my findings, combining the various perspectives in order to gain a more rounded understanding of the subject in question. In some instances, particularly in the case of my research into the impact of the Web on society, that different disciplinary traditions had often conflicting interpretations. Social sciences seemed to approach the Web in a more holistic manner than Computer Science based readings, which were more systems focused. I found myself leaning towards the more socio-cultural explanations of the influence of the Web, and have tried to compensate for this by ensuring that I have included reference to literature from both viewpoints in the thesis. My findings have been heavily influenced by the computational sciences however. I was particularly inspired in the first few months by the newly established research area of Web Science within which my Doctoral Training Centre was based (Shadbolt, *et al.*, 2013). Web Science promotes a systems approach to the Web but aims to overcome the gap in knowledge regarding the Web within Computer Science which until relatively recently categorised the Web under networking or social computing (Hendler, *et al.*, 2008: 63). Web Science is informed by consideration of both *social* and *technology* as key components. I wanted to situate my work within the debate and evolution of the study of Web Science, and so I have explicitly based some of my analysis into the topic of research for this thesis within the conversation around the Web as a social machine in Chapter 5 of the thesis and in Appendix O.

I was also heavily influenced by research in the area of the sociology of science and technology. Particularly, I wanted to use Bennett's work on materiality (2010). I had come across Bennett's work on the electricity blackouts in the US when studying my Masters (2005), and had also discussed Bennett's concept of vibrant matter with my supervisor (2010). Bennett's take on materiality seemed to offer a way to move away from the reductionism of the common approaches to the Web that I had encountered through by reading about theoretical methodologies such as Actor Network Theory (Latour, 2005) and those which conceived the Web as a graph (Albert, *et al.*, 1999). I found my way through this by tackling the theory from an archaeological perspective. Ingold helped me to find a way through, by focusing on the idea of actants (2000) as a way to consider the materiality and actionality of the Web. I discuss this in the thesis in the methodology Chapter of the thesis, and also return to the idea of approaching the Web from a use-based perspective in Chapter 4 and 5 of the accompanying volume.

I felt in a way that my thesis was about reclaiming the importance of the materiality of what museums do. I did not want to place emphasis on the objects held within museums. Instead, I wanted to express that the materiality of the local museum itself as an action that occurs between a person and heritage as it is represented by the connectedness of the many components of local museums (i.e. building, exhibition, volunteer, event, collections, and artefact). I read Grosz's feminist perspective on virtuality, and agreed with the idea that materiality cannot be overcome, but that new ways to deal with it can be developed by acknowledging the significance of the opportunity of "*openness of form*" (2001: 88). This really chimed with me, and I felt that this was also potentially the case for local museums. My reading indicated that they were being restricted by their physical form, being under-funded and under-appreciated. The Web it seemed might offer a way to extend the body of the local museum beyond those constraints so that it could more adequately express its contribution to the formation of identity in a local context. It seemed from my reading that there was much emphasis on the Web as a way to remove geographical boundaries. I wanted to look at how the Web could be used to engage in a local way. This motivated my discovery of Agnew's ideas about space over place (2011; 2013). Sterne's work on the commitment that academic work must make to endeavour to overcome technological determinism from administrative influences supported this view (Sterne, 2003), and I have used this to develop the idea that local museums must consider users over governance. This is an idea that runs through my work on local museums.

V.3 Use of social media

At the beginning of my time as a PhD student, I set up a project with Dr. Lisa Harris who is a Senior Lecturer in Marketing, to attempt to innovate in social media use in an academic context. This project included the design of a methodology for social media use at live events in HE and resulted in several reflections of the experience (Beale & Harris, 2012; Beale & Ogden, 2012; Beale, *et al.*, 2012; Harris & Beale, 2012; Harris, *et al.*, 2012). From this work I was effected by the need to develop digital skills in order to effectively communicate about research online. As a way to contribute to this issue, I ran training workshops for students at the University of Southampton in how to use social media as an academic, and wrote some guidance on this topic (Beale, 2012a). This guidance has been one of the highest read blog posts on my academic Wordpress site that I intermittently add to.

My experiences as a postgraduate student have resulted in a sense that practical advice is needed over theoretical wonderings. As a PhD student, I have been learning how to conduct research, and

my contribution to theory is not going to change the world. But I do feel very strongly that reflecting on personal experiences can offer a real contribution to improving people's experiences of the world. As part of this belief, I have attempted to publish reflections of all of the learning activities that I have undertaken as part of my experience as a student (Beale & Beale, 2012; Beale, *et al.*, 2013). I have attempted to incorporate this emphasis on practical advice in my PhD research. The reflexive approach is a major aspect of this attempt.

V.4 Practical archaeology with community members

Whilst I was carrying out my research, I became involved in many other activities that came out of my interests in technology and the impact of archaeology at a local level. The Basing House project is run as a 'community archaeology project', as it has several participants who live in the region of the site and volunteer as part of the annual fieldwork season. However, in practice, the project is much more of a student training excavation. The funding comes solely from providing mandatory full-time fieldwork to undergraduate students from the University of Southampton. I have been keen since the beginning of the project to move to more collaborative working practices, but this has been problematic because of the lack of funding for the work to occur. As part of the project, which I run with colleagues from the Department of Archaeology, I have set up several social media based accounts to experiment with providing different interpretations of the findings to different audiences. This experience has affected my research as it has provided me with insights into the actual use of many social media tools and platforms to communicate about archaeology.

V.5 Assumptions about special interest group needs

Over the years, I have also become increasingly interested in supporting community groups to adopt technologies to contribute to the work that they are doing in relation to the recording of heritage. I set up a project in 2011 with my husband (who was also studying for a computational archaeology PhD at the time) to provide methodologies and training to special interest groups and local history groups for the identification and use of low-cost technological solutions to record and interpret memorials in and around churches. This project has grown into an extensive network, and we have worked with several heritage organisations to spread the findings from our work. Through this work, we have met with, trained, and then support many groups of amateurs, beginners, professionals, and experts in the use of computational recording techniques. This has provided much food for thought in relation to my PhD research. This project is ongoing and informs my assumptions about the needs of communities. This project has also impacted on my

attitudes to approaches for collaborative and participative working, and I have learnt a lot about the nature of the relationship between academic institutions, funding bodies such as HLF, governing bodies such as the Church of England or Churches Conservation Trust, and communities of interest. I have applied this learning to my research for this thesis.

V.6 Specific events that have impacted findings

Three specific experiences have informed by research in particular.

In the first year of my PhD research, I attended several events that mentioned the potential of Wikipedia for research. I wrote about topic in several blog posts and as part of my use of Twitter to discuss my reflections, I contacted the Wikipedian in Residence at the British Library to ask if he could attend the University to deliver a workshop on Wikipedia as a tool for researchers. I was particularly hopeful that the session would also provide some insights into the contribution that academics could make to Wikipedia. The workshop was well-attended, and two Wikipedians from the region also came along to support the British Library Wikipedian. Researchers from several departments were represented, which was encouraging! The workshop had to focus primarily on practical skills for use of Wikipedia, and this was the focus of much of the activity for the day. This provided some awareness of the amount of time that would be required to engage a heritage organisation with Wikipedia.

The key lesson from this experience for me however, was the motivations of the two Wikipedians who attended. I spoke to them at length about their interests and incentives for using Wikipedia. I was surprised that they were not driven by interest in topics, but by interest in specific kinds of tasks within the system. Although this is anecdotal, and a very small sample, it did highlight to me that my understanding of these kinds of tools was perhaps influenced by my experiences with other types of volunteers. Reflecting on this experience, I can see that Wikipedians do have some characteristics in common with heritage volunteers. Research indicates that they tend to be motivated by leisure over most other impetuses (Orr, 2006). A desire to socialise or to get more exercise is more significant than a burning desire to handle Roman pottery. For Wikipedians, it seems from the research available that contributors are motivated by the social also, as part of social status building through shaping the resource of Wikipedia (Zelenkauskaitė & Massa, 2012). Throughout my research, I have borne this experience in mind as it highlights to me the complexity and idiosyncratic nature of people's uptake of social media.

In 2014, I ran a workshop that trained heritage professionals to use social media to support their work. As part of the workshop, I included an introduction to the history and development of social

media. I was writing Chapter 5 and I wanted to try to include a consideration of the ideology within which the Web and social media had developed into the training. The ambition was to incorporate an understanding of the context of the technology into practical training for specific tools. In the feedback, the only mention of this aspect of the workshop was that it had seemed superfluous to the rest of the timetable. This was a valuable experience as it highlighted to me the importance of clearly stating motivations for incorporating context-independent information into practical exercises. This has directly informed my approach to the design of the MUSM framework in Chapter 7 and 8.

The final event that has impacted significantly on my attitudes during my research was a Wikipedia Editathon that I took part in, in 2014. This event was organised by the Wikipedian in Residence at York Museums Trust (YMT) and motivated me to include YMT as a case study. The event aimed to contribute a series of new articles to Wikipedia that made use of the Trust's collections. A Wikipedian had heard about the event and came along to support the work. I was paired with the Wikipedian and worked with him to write an article for Wikipedia. The Wikipedian was quite young, but had lots of Wikipedia experience which he applied in our creation of the article. He used several Wikipedia 'tricks' to flag up the article to the Wikipedia community. The following day, the article that we had written together featured on the front page of Wikipedia and as a result of this, received thousands of visits.

Because of my own personal interest in increasing awareness of women through history who may have been overlooked at the time due to their gender, I was keen to choose a Victorian artist who had several paintings in the York Art Gallery as the topic for the article. There was very little information about her online, and most of the article was based on a single book that I had taken out of the library. I found some high quality references online that I wanted to use to back-up points that I was making about the biography and significance of the artist (I was reliving my History of Art undergraduate days!), but the Wikipedian advised against including these because on a technicality, most of them did not comply with the rules that Wikipedia sets out for the reliability of sources used in articles. From the advice, it seemed that referencing sources that could be accessed via the Web was a key emphasis for articles being published in Wikipedia, as there was no guarantee that our article would be approved. As a consequence of the approval process of Wikipedia, we used less reliable sources for our article, and the content was greatly reduced. This experience meant that I was surprised when the article was featured on the front page of Wikipedia. It was highly unlikely that our modest article was considered to be particularly interesting, but there it was in the 'Did You Know?' box on the front page. This raised many

questions about the way that Wikipedia is structured. Not because I questioned the inclusion of the article, in fact I was very proud that our contribution to Wikipedia had been recognised, but because it seemed unlikely that I would have achieved this had I written the article without the involvement of a Wikipedian who was experienced in the structure and process of the system of Wikipedia as something made up of technology and people. This is reflected in my emphasis in the MUSM framework on needed to audit and reflect what already exists in order to improve understanding of particular tools and platforms, particularly of the communities that use them.

V.7 Changes to methodology

V.7.1 Confidence in technology use

The experiences that I have outlined above mean that I am very confident in using social media. I have several social media accounts, both personal and professional, and I communicate on a regular basis with fellow colleagues, other academics, and practitioners in the museums sector through these accounts. This has no doubt had an influence on my desire to place an emphasis on sharing experience with particular tools. I have advised many colleagues on how to use particular tools, and have run professional training workshops in the sector to introduce social media and other technologies to heritage professionals. I was concerned throughout the research process to bear in mind that I was experienced in the use of social media, and that this level of knowledge may not be the same for all. I became increasingly interested digital inequality as I was reading about my research topic, and I became particularly interested in the assumptions that are made by organisations about digital skills. As a result of this, I have included some work on digital skills in my thesis, and I have endeavoured to include a consideration of the contribution that local museums could make to this in my findings.

V.7.2 Acknowledging digital inequity

As I spent time with the paid staff and volunteers at HCT, I found myself increasingly using examples to explain concepts and ideas. This is an established method for encouraging innovation in practice in the museums sector (Bennett, 1995; Knell, *et al.*, 2011). From this experience, various paper-based mediums were used to illustrate points and to show examples during interviews. It was soon apparent that the initial use paper-based images and written descriptions was not particularly accessible and also was perceived as being uninteresting by some participants. Although this was not explicitly stated, it was apparent in reactions.

Following this, my own laptop was used to refer to projects using PowerPoints, with static images of screengrabs to show resources. This was because there is no option to connect non-HCT devices to the Internet at the offices. This was frustrating for both participants and for me. In most instances, participants offered use of their own machine. Some time was then spent locating particular examples on the Web. As a result of this, it seemed that a central location from which to refer outwards to websites was needed and so I created a website that contained Uniform Resource Locators (URL) for all of the examples of practice and additional webpages that I anticipated that I would need to refer to during interviews. The website was:

<http://openmuseums.wordpress.com/>

This meant spending some time before each visit to HCT compiling webpages for expected topics of conversation. There was little redundancy in effort as I found although I might only use a small portion of the links collected during an interview, I was building a reusable resource for HCT to use after the research ended. The website became an output of the research and I used it as a basis for the design of more general resources for staff within LAMAs to use. This is found at:

<http://www.localmuseums.org/>

V.7.3 Different forms of collaboration in archaeology

As a brief additional reflection on this topic, in 2012, I was lucky to travel with my supervisor, Yvonne Marshall to British Columbia to attend the Canadian Archaeological Association's annual conference. The following year, I returned with Yvonne and two fellow postgraduate students to try out some of the computational photography techniques that we had been developing in the Archaeological Computing Research Group, of which I had been an active member since my Masters in 2004. We recorded some petroglyphs and worked with representatives from First Nations bands. These two trips were very valuable as they provided my first insight into the differences in approaches to archaeology between the UK and North America. I was nervous to include discussion of this difference in my thesis, as I feel that I am quite inexperienced in my knowledge of Canadian and American community archaeology, but from supervisions with Yvonne, I decided to take the plunge and tentatively mentioned the difference in approaches in my methodology. I had intended to pursue this further in my findings, but I felt as time passed that I did not have enough time to fairly discuss the issues. I have been left feeling like there was something at the tip of my tongue, that I was not quite able to vocalise in my thesis. I wanted to say something about the lack of acknowledgement of how the needs of communities in the UK are not considered with the same care as those in North America. What I mean by this, is that there seems to be an assumption in the UK that there is little complexity in the relationships that

seem to be given some space to negotiate within Canada. This is only the seed of a thought and so I have not included it in depth in my thesis. I have included however, George Nicholas *et al.*'s work on collaborative archaeology and the ethical and legal considerations of this kind of model (2011).

V.7.4 The impact of organisational change

At the beginning of the research process, I was not certain how far HCT would be able to support my research into their practice. I was aware that they were about to go into a period of transition, moving from a local authority managed organisation to becoming a trust. I was concerned that this would have an impact on my work, and I was not certain how to incorporate this change into my findings. As I was nervous about the transition, I tried not to focus on it when interviewing participants the first phase of data collection. However, it was on people's minds, and it was difficult not to consider the effect that it was having on activities. From the outset, I was concerned that this change to trust would affect my findings, as many people were frustrated about the things that were happening at HCCAMS, and the effects of this on them personally. I decided that I would have to deal with this explicitly in my methodology.

V.7.5 Volunteers

I began to interview volunteers at HCT as I had a developing concern in the first few visits to the archaeology stores that through interviewing only paid staff I was focusing on the dominant group over those with less power relating to decision making within the organisation (Schwalbe, *et al.*, 2000; Krumer-Nevo & Sidi, 2012). As my research into the literature surrounding local museums signified that volunteers would be becoming an even more integral part of the work of local museums, I wanted to consider their ideas and attitudes to social media in my research.

I spent some time with the volunteers at HCT. Before interviewing them, I invested time in getting to know them. I had met a few of the group in passing through my relationship with the organisation as an archaeologist running an excavation on one of their sites, and it took me some visits to move conversations beyond this fieldwork. I think that this is because the volunteers are very interested in archaeology and found my work at Basing House to be much more interesting than my research into them!

I had very positive ideas about the potential usefulness of social media for the daily tasks that volunteers were carrying out. As time went on, I realised that I was not going to have enough space in my thesis report to include a detailed analysis of the interviews that I had carried out with HCT volunteers. At several points I wished that I had focused more on volunteers, and

perhaps focused the research questions more on their needs. Looking back at the end of the process, I feel that I did not give volunteers enough space in my thesis. I am keen to rectify this with an additional study that aims to incorporate their perspective into the literature. As a way to do this, I am working on a paper for a chapter in an edited volume to be published by Facet Publishing in 2017 that aims to address the challenges associated with working with community groups on digital-heavy projects in a way that incorporates participation. The abstract for the paper is included below:

Co-designing heritage practice: New approaches to the recording and preservation of community burial spaces

The Re-Reading the British Memorial Project began in 2011 as a small scale documentation project which aimed to share digital imaging expertise amongst community groups studying burial spaces. In response to the requirements of community groups, and with their collaboration, the project has now expanded to support community-led research at every stage of the data lifecycle from creation to re-use. The project now incorporates an increasingly broad range of stakeholders including national organisations and university research clusters as well as community groups and volunteers. This paper will discuss some of the practical issues which arise out of the collaborative development of methodologies and technologies for digital archaeology. In particular, we will focus on the application of co-design principles in the development of an app for recording burial space. We will explore the creative challenges and opportunities which arise from reconciling local and institutional research agendas. We will place particular emphasis upon the development of hybrid forms of digital archival practice. We will critically assess different methodological directions which have been trialled by the project and will describe our current strategies for community engagement and collaboration.

My intention is that this paper will lead to a debate around the some of topics that I have encountered during my research. I am lucky to be writing this with Gareth Beale, who is the co-director on the community church recording project discussed above, members of two of the groups that we have been working with, and Prof. Helen Petrie, who is a Professor in Human Computer Interaction at the University of York. I think that this collaboration will result in some exciting new ways forward.

Appendix W Third reflexive researcher statement

This is the final reflexive researcher statement for this research. This statement intends to look back on the experience of developing the findings for this thesis and consider the ways that my attitudes have changed.

W.1 Action research

I spent some time at HCT participating in daily activities. There were periods when the benefits of this work were not immediately obvious in relation to my research. I was enthusiastic about the tasks that I was carrying out because I enjoyed the work, but this meant that through immersion I would often forget the purpose of my visits, and would be lost in the moment of scanning paperwork from an archive, or sorting medieval floor tiles. Looking back at this experience, each task I carried out contributed to my understanding of the needs of the archaeological collections at HCT, and also of the attitudes of paid staff and volunteers to my research topic.

W.2 Organisational change

Throughout my time at HCT, I felt that I was struggling to comprehend the complexities of the situation, particularly in relation to the change in status of the organisation from local authority run to trust managed. I was worried throughout about the impact that this would have on my findings, and I found it difficult to feel my way through my data to identify for instance when comments were a direct result of the fears of staff that were related to the changes afoot, or were a part of real attitudes to the use of technology within the organisation. I realised over time that there was actually very little difference between these two things. Organisations are forever changing, and my experiences working in museums had reflected this. I endeavoured to embrace the uncertainty that came out of this, and tried instead to design a methodology that incorporated change into its own structure. The resultant MUSM framework reflects this as it does not focus on one kind of organisation, nor does it provide guidance for specific tools. Instead it makes no assumptions about the needs of the organisations that will use it. The framework provides themed introductions to new approaches to using social media. I anticipate that the ideas contained within the framework will be used as inspiration rather the steps, themes and areas for focus being implemented in their entirety.

W.3 Working within the bounds of the PhD

As with all PhD students I have met along the way, towards the end I began to run out of time, and had to make difficult decisions about which direction my research would go in. I had been organically following leads as they occurred, and this is part of the methodology, but as the end of the period drew nearer, and I was writing each chapter, I had to focus in on particular aspects of the findings.

The main outcome of running short of time is that I had to greatly reduce the attention that I was intending to spend on the case studies. I focused on three of the most useful instances of technology use, and had to write shorter descriptions of the others. I had intended to include longer write-ups of each example of practice for the research website, but could not find time to meet with representatives of all of the projects. Happily, I was able to 'touch base' with a large proportion of the projects, but I did not talk to someone from each one. In some cases, I underestimated how much time would need to be dedicated to building a relationship with people who had been involved in projects in order to set up interviews. As part of this, I spent some time researching into the significance of gatekeepers in qualitative research, and although this is only represented within the methodology as a brief mention, I was quite concerned about the impact of this on my findings at one point in the process. I had to spend some time researching into some of the projects to ensure that I was fairly representing them in the brief description that I provided, and that information that I had been given by participants was valid for the purposes of the research. This aspect of the research has been the most frustrating and I feel that I did not make the most of the exercise. Analysing the case studies, and carrying out three more in-depth studies did however provide me with a useful experience. The learning curve for case study research was high! I would like to apply this learning to a similar, but smaller scale project in the future, to improve the skills that I developed as part of this exercise.

I found the Digital Skills Audit that I carried with volunteers at HCT to be an incredibly useful exercise as a way to establish a base line from which to analyse responses to the Web. As the research progressed, I realised that this exercise would have been incredibly useful for all participants. This realisation came too late for me to collect information from other participants. It would have been valuable also as a comparison between museums practitioners and volunteers. I made assumptions about the levels of IT skills amongst volunteers that were predominately based on my own experiences with volunteers at sites run by HCT, through my paid employment with HCCAMS and my work as an archaeologist. The findings from the Digital Skills Audit (in Appendix E) seemed to support my interpretation of the contribution that they

could make to the use of IT within HCT. However, there seems to be very little information available that quantifies the digital skills levels amongst volunteers. I would like in the future to perhaps remedy this by carrying out an audit across HCT to contribute to the body of literature on volunteers in heritage.

W.4 Problems arising during the research relating to the methodology

The mixed methods approach has resulted in a rich data set from HCT. Although additional methods could have been included in the research, within the timeframe available and the specificities of the research questions, the methods employed led to adequate conclusions. Additional data could have been created for analysis of the case studies as only general findings were possible with the data that I was able to collect. I initially incorporated 18 case studies into the research due to fears of generalising from case study research, but found this to be impracticable within the limitations of a PhD study if I was to also incorporate participative action research at HCT. I felt that the research at HCT offered an additional context-dependent perspective into the research as it is a group of local museums, and so I compromised on data collection for the case studies.

I found the process of reflection very challenging personally. It was difficult to record my doubts and concerns about the reliability and validity of my own research. Because of this uncertainty, I often left reflection until long after an event had occurred and this reduced the insights into my own practice.

My fieldnotes could have been more detailed and focused more particularly on the perspectives of practitioners. Incorporating a process of retrospective comments from participants of the notes I was writing up after visits to organisations may have improved the reliability of this data.

In the instance of data collection for the case studies, I chose not to record some meetings as I considered them to be provisional. I underestimated the time that museums professionals would have for interviewing and in many cases, the initial meeting was the only opportunity to collect data from individuals. If I had recorded these meetings, I would have had more information available for analysis. However, as I was intending to meet with participants a second time, I did not ask the most pertinent questions as I was keen to first develop a relationship of trust through allowing conversation to organically develop.

W.5 Relationship with other research

The research seemed to be indicating that a principal opportunity for the uptake of social media within local museums is the role that they can play as facilitator for citizens' experience of the Web. This role is in line with LGA research into the potential of technology for local services within local government (2014b: 41). I was interested in the significance of this finding as applied to local museums and decided to examine this in the later chapters of the thesis in discussions regarding the potential of heritage organisations as a technology facilitators.

My reading and analysis of online resources indicated that local museums have been employed as a means of contributing to cultural, economic, and social agendas of communities, through providing services that increase awareness of heritage and identity (Macedonia, 2003; Sandell, 2003; Brabazon, 2006; Preziosi, 2006: 72; Beaumont, 2010; McCall, 2010). However, there was a problem in joining up the critical literature on museums with current professional methodologies. In order to achieve this, I decided to explicitly state in the research that there is a clear challenge in the way that the Web provides a space for local museums to ensure relevance and public benefit.

I wanted to explore why online visits to local museums through websites are increasing disproportionate to in-person real-world visits to local museums (Meecham, 2013: 40-41). My reading and online research seemed to point to there being a sector-wide attitude that the Web is unbounded and this has led to the tendency of unrealistic notions of every museum website receiving thousands of visits by users no longer limited by physical constraints. I was unable to explore this further within the scope of the PhD, and so I conducted a brief anecdotal survey of local government museum websites. It seemed that a small, local museum would need to undertake an extensive programme of content creation if it were to be able to provide online experiences that everyone would want to access, and indeed, would be able to locate on the Web. I had not collected enough data to discuss this explicitly within the main body of thesis, but this assumption underpins the ideas that I developed in Chapter 7 and 8.

The findings of this thesis build on exploratory studies, such as López *et al.*'s (2010) work on social media accounts and my own Masters dissertation which discusses the disparity between strategic approaches to social media commitment and actual social media usage by museums (Beale, 2011). The research examines why there is a low uptake generally of social media and from this, I identified a new area of research needed in the sector for the design of content for online engagement from collections that is based not on audience or user categorisation but on the

needs of communities. I wanted to express in the final chapters that digital content created for users' online engagement with local museums is currently based on the same motivations as content designed for traditional visitors to local museums. This offers an augmentation to the advice given by Blankenberg in the popular manual for museum exhibitions (2013: 155). New research in the field of critical code studies is demonstrating that there is a misapprehension of user needs of museum websites (Wilson, 2011), and I wanted to build on this. There was however little information available about the use of social media by museums, and this is perhaps a potential future direction for research. I feel that the thesis contributes new findings to this area.

W.6 Working with the partner organisation

When I began meeting with HCT staff and volunteers, I amended this procedure and recorded meetings, and carried these meetings out as semi-structured interviews. As the methodology describes, I changed this approach after the first few months of working with the partner organisation as the relationship was developing in such a way that I could rely on follow-up meetings.

Soon after I had begun to collect data on a slower more iterative manner, two of the main participants, the Digital Collections Officer (DCO) and the Marketing Officer (MO) left the organisation soon after it transferred to trust status at the end of 2014. I was lucky that I had been able to conduct final interviews with these individuals before they left, but their leaving did necessitate a revisiting of the transcripts to check that there had been minimal blurring of the personal-professional boundary. The DCO asked that I remain in contact and the end of her time at HCT, and this has occurred.

My own experience of attempting to carry out participative design of the MUSM framework with HCT evidenced that there is a disconnect between the ideology of participative design and actually communicating with people to find out what they want (Asaro, 2000: 278). I felt that, to overcome this, there needed to be more of a focus on the organisation itself. My participation in everyday tasks at the archaeology stores was an attempt to address this issue.

W.7 Making conclusions from the research

A substantial part of the research process involved researching online. There is little advice available for researchers on how to negotiate the landscape of the Web in order to identify and collect data relating to activities online. As a consequence, I relied heavily on guidance for ethnographic research online (Coleman, 2010; Kozinets, 2010; Sin, 2015), despite this not being

quite what I was trying to achieve by studying existing social media for museums. I used approaches for historical case studies in order to improve my analysis of what already exists on the Web (Baxter & Jack, 2008).

The nature of social media tools and platforms is that much of the data is unavailable due to the structure of the software. As social media is increasingly moving towards tying user accounts to individuals, in many cases I could not see content relating to an organisation unless I engaged with that organisation through social media. For example, Facebook groups can be private or public. When they were closed, I had to request to join in order to see how the platform was being used by the group. There was the added concern that there were ethical implications to my accessing communities within social media by joining in. I became increasingly concerned about this and as a consequence, the findings of this research only include information that are available publically. There are comments that were created by individuals within this thesis, for example the comments left on the HCT Heritage100 website. In these instances, these are only used if the information was available without logging in to a social media platform or tool. There is a more extensive reflection of the ethical implications of working with social media in the final reflexive researcher statement in Appendix W. This includes reflections on the difficulties of contextualising data from social media, issues associated with formal ethics processes including transparency and flexibility in modifications due to privacy regulations, digital skill in collecting and analysing datasets from social media, and applying ethnographic methods within the online space.

Initial investigations for this research indicate that efforts by local museums to use the Web are focusing on fulfilling defined objectives and pre-established goals and on engaging with pre-categorised audiences in line with broader aims derived from national level initiatives. More work needs to be done to confirm that this is indeed the case, and this could be achieved through a large-scale survey of decision makers in local museums. In taking this approach, local museums are attempting to fit the Web to pre-existing agendas. Success from approaches such as this will be limited if there is a fundamental misunderstanding of the nature of the Web and of social media from the outset, as this thesis has explored.

W.8 Digital researcher: Ethical considerations

One of the most significant impacts on my own personal interests has been the experience that I have had in relation to the ethical considerations of the research. In particular, I was very frustrated by the formal ethics process and the relationship between this and the needs of the methodology that I had designed. I became very interested in the issues arising from my interest

in what was already occurring online within social media. This was not within the scope of the thesis, but I spent some time looking at the issue. I would like to continue this research in the future. From my own experiences, there seems to be a need for clearer advice on the implications of using data derived from social media sharing sites or social networking platforms. In many instances, digital content within a social media platform will be available because users have not ticked a box to keep the content private. This does not mean that the digital content could be utilised. This is particularly as levels of understanding of the implications of sharing personal information online are so low. I became more aware of this as I spoke to practitioner in the museums sector about their experiences with social media. There is very little guidance available on this topic. Ethnographic approaches are being translated onto the online (Kozinets, 2010), but advice on how to practically safeguard against misuse of personal data is light on the ground.

From the researcher perspective, I feel that high levels of digital skill are required to adequately engage with many of the datasets coming out of social media use. There seems to be a tendency to black box this issue. From anecdotal experiences, researchers 'press a button' and then analyse the results from this, rather than understanding how the process of aggregation of data has actually worked. I kept finding myself asking questions like: *Who owns the data? Where does it come from? If it has gone through three or four iterations already, how can you chase things back to their source?* In many instances of looking at how a particular tool or platform had been used, I had to invest considerable time in learning basic skills for the gathering of data, rather than focusing on the analysis and interpretation of data.

With social media research, one of the things I have observed is that institutional processes for establishing formal ethics for research projects tend to focus on static statements which do not allow for the incorporation of flexibility that is necessary when studying group activities online. During the design phase of the research, I changed my research methods so that I could avoid the issues that I was coming up against in relation to studying what already existed online in regards to museums and social media. I looked at using methods such as stating repeatedly my motivations for research in as transparent a way as possible so that users that come in and out of social media can make informed decisions. However, this seemed very difficult to implement, and so I decided to not carry out a comprehensive study of existing local museum social media account. I saw over the three years of paying attention to a myriad of tools and platforms that rapid changes in privacy regulations in social networks seemed to mean that ethical procedures in higher education (HE) institutions and analogous organisations needed to allow for more iterative development of ethics submissions. This would mean that as the tools change, the ethics

methodologies can change as the needs of the researcher develop during the course of fieldwork. My experience was that the ethics process was quite good at allowing for amendments, but the timeliness was an issue.

Instead, I focused on one context-dependent instance of social media use, and designed a methodology that clearly stated the limitations in regards to generalisation from the findings. I adopted a highly reflexive methodology so that data was included ad verbatim if at all possible in an attempt to lessen partiality that is forced on individual expressions within particular social media.

This experience has led to my considering how formal ethics processes could be changed in regards to flexibility of design of submissions. Pre-empting what will be needed means unrealistic planning must be undertaken. Changing the research agenda to place less emphasis on access to data that might prove tricky to access or reuse seems to be the standard approach, based on my anecdotal evidence from conversations with fellow Web Science researchers. This brings with it however, a risk of preference of certain tools because they are more open. This in turn leads to a representational bias. I have found this part of the experience fascinating and would like to continue to look at the potential future for ethical methodologies for studying social media in an academic context.

I often felt that I needed advice on contextualisation of data from social media. There was very little available, particularly for the relationship between researcher, organisation, and individuals. Shades of access mean that often I was seeing only a partial view onto social media activity. I struggled with how to express more clearly the context from which the data came. In addition to this, the affordances of social media tools and platforms as connected and simultaneously disconnected entities meant that the ethical representation of findings was problematic. This is particularly because transference of data between different systems means that different interpretations can occur of the same activities if studied within different platforms.

I think lack of awareness amongst users of social media of what it is that they are actually doing is an issue for researchers using social media. If they are behaving in an uninformed manner, advice is needed on whether it is ethical to make use of that data.

W.9 Confidence

The experience of reflecting on my own actions has resulted in my feeling more confident in questioning assumptions in my academic practice generally. At the beginning of the process I was

enthusiastic about reflecting on my experiences and I believed that these exercises would benefit my findings. Over time, I became frustrated that my reflections were leading to doubts about my own skills as a researcher. As time went on however, I realised that this doubting was a major benefit of the process as it resulted in deeper consideration of the decisions that I was making. This was particularly the case with the development of my relationships at HCT.

Appendix X Report for HCT: The digital object online

This appendix contains a report produced for HCT which outlined some of the issues surrounding digitisation and the use of social media. Interviews with staff highlighted that this was a major concern, but it was not within the scope of the research questions to include in the thesis. It is included here as part of the reflexive nature of the research methodology because the findings from my investigations into digitisation have informed my analysis of the context for local museums, the case studies and of HCT. The report puts forward an augmentation to Falk and Dierking's interactive experience model (1992, 2012). This research was extended to form my contribution to a paper I wrote with Sara Perry that was published in 2014:

Perry, S., and N. Beale (2014) The Social Web and Archaeology's Restructuring: Impact, Exploitation, Disciplinary Change, *Open Archaeology*, 1(1). DOI: [10.1515/opar-2015-0009](https://doi.org/10.1515/opar-2015-0009)

X.1 Technical requirements of a social digital object blocks digitisation

There is a considerable challenge in the digitisation of museum collections. The technical challenge of preparing object records for public sharing can prevent digitisation projects from even beginning. Before digitisation occurs, social media could facilitate participatory approaches to the digitisation of collections, providing a mechanism for audiences to inform areas of collections for prioritisation. There is little evidence of social media being used for this kind of project. When examples do occur, there a significant selection process has usually already occurred within the institution. To date, many museum collections have been digitised for the Web in a piecemeal way, particularly those held by local museums. This is the case at HCT, as evidenced through interviews with the Digital Collections Officer (DCO) and discussed in later chapters of the thesis. In most instances of local museums' collections digitisation however, selected objects are highlighted online as representative of the collections as a whole.

When grant funding is gained for digitisation projects to enable digitisation to occur, these are generally collections-wide digitisation programmes that result in complete online collections. Reviewing existing online collections databases for local museums, the evidence points to best practice being the creation of records of objects that include basic catalogue information accompanied by photographs of objects. Appropriation of metadata fields in collections databases with confidential details such as donor information means that often data cannot be uploaded en-masse without an additional phase of data preparation.

X.2 Over emphasis on the object obscures potential contributions of local museums

There are other ways to categorise museum types in the UK, although there has been little recognition of the impact on the expectations of a museum in relation to type. The nature of the collections has been a traditional way to classify museums, but there is an assumption in this form of categorisation that the objects within the collections are the central factor of a museum. More often today however, this is no longer the case. Museums are increasingly moving away from being defined by the objects that they collect, and in some instances, are not collecting objects at all. This is not necessarily a result of a move away from collecting, but can be due to a lack of access to original objects or that there has been a rupture between the objects and the activities of the institution. This is certainly the case for smaller locally focused museums. For example, McLeod writes about museums in West Africa where objects have lost their meaning and context resulting in a permanent separation between the exhibited objects and stored objects (2012: 473). Nowhere is this more pertinent than with local museums, where the notion of the museum as holding in trust significant objects does not hold true as part of the model of a local museum. Objects bring authenticity to a museum and this is a phenomenon well-described in Museums Studies research, as Latham evidences in her work on “*the real thing*” in museums (2015: 18).

Objects are claimed to be central to many aspects of a traditional museum model (Srinivasan, *et al.*, 2010). For instance, objects impact the value or significance that is afforded to an exhibition (Bitgood, 2013: 64-76). There is an assumption therefore that objects are an essential part of conferring authority onto a museum. We can refer here to Haraway’s “*technologies of enforced meaning*” (1984: 30), as a way to understand the representationalist approach of museums in the construction of exhibitions. For the local museum in the UK, the archaeology collection is often made up of a mixture of objects and archival materials. Although there are standalone artefacts that have been donated to the museum without contextual materials, most objects will come with a myriad of other materials, many of which are worthy of the title ‘object’ in their own right. For instance a slide collection from an excavation, or drawings of objects that have since eroded over time might warrant being curated as an object rather than a paper record that is associated with an object. Edwards and Lien attempt to address the complexity of these multi-material assemblages in their book on the way in which curatorial practice has approached the display of photographs (2014).

The focus of local museums working to digitise their collections is often to photograph an object then amend accessions information so that it is appropriate for online sharing. This process is representative of a very small part of the life of an object held in a museum collection, but in doing this, museums are presenting objects within an online collections database as static objects, frozen in time, that have been removed from their physical location and are situated within a website. By structuring online collections databases in a way that the emphasis is on the object as a static image, with some textual information, museums are creating a significance that is unreal. Sontag's work on the act of photographing as a way of conferring importance (1977: 28) is being carried out by museums in the creation of online collections. Yet, however important, the photograph of a museum object that is shared online through a collections database is a form of documentation and is therefore also a way of forgetting, as giving it materiality on the Web is contributing to the destruction of memory (Piccini & Rye, 2009: 35).

The focus on two dimensional images as the representation of objects limits their reuse and also their potential reach on the Web. This is compounded by the licensing and formats which are used to present the images. Instead of images of objects, the social Web has the potential to collate and present considerable contextual information about objects, as well as providing a mechanism with which to address that information and create new interpretations and indeed versions of the objects itself. Photographing an object captures what Piccini and Rye call the "*documentation*" (*op cit.*) of an object, but it does so at the expense of the "*document*" (*op cit.*) of the object. This is echoed in Cameron's work on the object presented as "*evidence*" (2007: 52) and as a thing that acts to communicate the truth to the viewer. Even online collections with tools that enable users to re-present objects within self-managed timelines and themed sub-collections use the metaphor of documentation. The lightbox has been popular for some years (Addis, *et al.*, 2005; Broomfield, 2009; Boyd Davis, *et al.*, 2013; Carrasco, 2014) and this metaphor is based on the idea of the online collections database as a collection of physical photographs that can be removed from the boxes from which they are stored by curators and re-ordered with more personal significance by users. But in reducing the objects to mere images, potential to engage with those objects is limited. All of this results in the emphasis of the online collections database as being the presentation of an object as isolated despite its being online.

Digital objects have been seen by the museums sector as digital surrogates, but recent years have promoted the idea of representations of objects online being objects in their own right (Witcomb, 2007). These new objects are tied into the democratisation of access to knowledge (*ibid.*: 36) as they provide a way for people to have access to collections. However, digital objects are being

treated in the same way as analogue objects by museums. Digital objects experience a paradigm shift when added to the Web, but museums have not recognised this transformation and are still persisting with transposing values such as control and authority onto these new kinds of objects.

The expression of the museum online is currently predominately constructed from real world collections. These are maintained by organisations that have a physical presence and this is made available online through the model of a digital catalogue. Websites of museums tend to focus on the visitor as a person who wishes to visit the building and see the collections of a museum. This visitor is motivated by a desire to experience objects in the real world. The awe and wonder of a museum experience is a key motivation. The well-established model of the catalogue manifests online as part of museum websites in the form of the online collections database, as discussed above. This catalogue model can be problematic for local museums because they do not necessarily emphasise the object in their real world practice. This difference in emphasis is representative of the difference between the larger national museum and the smaller locally focused museum. A commonly used approach to improving the reach of museums has been to focus on increasing access to collections (Keene, *et al.*, 2008). This has involved creating opportunities for people to interact with collections that are not on display in exhibitions. Common in the museums sector is the facilitation of tours of stored collections as a way to overcome the unreachability of much of museums' collections. Online collections databases are an extension of this solution onto the Web.

Local museums have struggled to use the Web to improve access to collections, as there is a common misconception that collections must be digitised in their entirety. The need for digitisation is recognised by most museums, but there is little guidance for smaller museums on how to approach piecemeal digitisation. In an European Commission (EC) supported survey of over 1,400 European cultural heritage institutions, findings showed that the majority of cultural heritage institutions already have digital versions of collections, but that in most instances only a fraction of collections have been digitised (Stroeker & Vogels, 2014). Figures from the EC report point to the fact that there is a positive move towards digitisation of collections by museums, but there is evidence from the responses that this is not being carried out strategically. Findings found that only 36% of institutions had an explicit policy for digitisation and the major purpose for the digitisation of collections was to facilitate academic research into those objects (*ibid.*: 6).

Digitisation is seen as a task related to knowledge creation rather than knowledge sharing. In comparison to other types of arts and culture institutions, museums are consistently the least likely type of institution to have a digital preservation strategy, to measure the use of digital

content, to have a solution for long term preservation of digital content (*ibid.*: 30-34). This means that digitisation is not aligned to strategic aims of museums, and therefore is disconnected from much of the audience's needs. It would seem that museums are at a crossroads in regards to the management of digital content within the sector.

Theoretical approaches to visitors' experiences of museums today are founded in the belief that visitors actively transform social meanings into personal significations. This means that the projection of social meaning by museums will not have as great an impact as allowing visitors to produce their own meanings through interacting with the museum's collection (Rowe, *et al.*, 2002).

Digitisation of collections by museums is resource heavy and this is preventing local museums from embarking on projects to digitise collections data. There are several models for digitising complete collections at a smaller museum, but all have struggled to achieve effective digitisation. Some local museums approach digitisation as an ongoing process, working with staff and volunteers to work through collections as part of the everyday routine of curation and conservation, objects are slowly digitised and then added to online catalogues. Other museums have approached the challenge of digitisation on a project basis, sometimes gaining funding, and then digitising particular portions of the collection that are representative of events or themes, or that are part of upcoming exhibitions. This approach tends to result in a more nuanced online digital surrogate of objects as it has been part of a larger motivation to create digital content. This in turn means that there are more likely to be strategically linked objectives from digitisation.

Within local museums, the impact of digitising on the organisation itself differs notably to larger museums such as national museums. Nearly all digitisation in museums is funded internally within the organisation (Stroecker & Vogels, 2014). Smaller institutions necessarily have a considerably higher percentage of staff involvement in digitisation (*ibid.*: 37). In smaller organisations over 70% of staff are involved in digitisation whereas in larger organisations the percentage of staff involvement is less than 10% (*op cit.*). This means that digitisation in local museums is predominately carried out by staff who do not specialise in digital recording.

Social media has not typically been used by museums to support digitisation. There are however a few examples of crowdsourcing of digital tasks relating to the digitisation process. These are almost exclusively carried out by national museums or university museums. For instance, the Victoria and Albert Museum (V&A) has an activity online that encourages users to select from automatic crops of photographs of objects in order that the most appropriate image be used as a

thumbnail in the online collections database (2013). There are very few instances of online tasks being carried out that have a social component, and most of this small number are national or university museum based. For instance the National Maritime Museum (NMM) partnered with Zooniverse an organisation specialising in crowdsourcing softwares to produce Old Weather (National Maritime Museum, 2013). Old Weather uses gamification to encourage users to transcribe historical ships log books (Eveleigh, *et al.*, 2013). Users are promoted within the ranks of a ship's crew as tasks are achieved. However, research into the use of crowdsourcing by museums to digitise collections is still relatively new, and few studies currently exist that examine the issues surrounding the ethical practice of crowdsourcing (Perry & Beale, 2014). In the case of Old Weather, interrogation of the activities carried out by users shows that there is a significant drop-off in edits in the majority of users (Brohan, 2012). The minority of users are doing the majority of work. This fits with most Web theorists' research into crowdsourcing, as this Pareto principle (20/80 distribution of effort) is observed in most cases (Matei & Bruno, 2015). In the case of local museums, the possibilities of crowdsourcing have been recognised, but few instances of use have occurred. Due to the proportions of volunteers to paid staff increasing in local museums, it would seem that crowdsourcing may offer a new direction for digitisation work.

The findings from Stroeker and Vogels' report do not consider the involvement of volunteers in digitisation. As many smaller museums rely on volunteers for practical implementation of activities including digitisation, this further increases the gap between experience of digitisation in small and large museums. There are very few studies that attempt to quantify the contribution of unpaid volunteers to the digitisation of smaller museum collections. In the cultural heritage sector, the prevailing attitude to digitisation for the Web is that it requires high levels of resources (Smith & Rowley, 2012). Projects that have involved volunteer digitisation of collections for Web use evidence that high levels of staff involvement are still required (Flemons & Berents, 2012; Australian Museum, 2011). It seems that it is rare for digitisation projects to be led by volunteers. This means that for local museums the level of uptake in any move to digitise content for the Web requires involvement from the organisation as a whole. This is a considerable barrier to a local museum embarking on a digitisation project.

X.3 Potential new approach to digital objects using social media: The visit-experience model modified

The current approaches to social media described in Chapter 3 and 4 of the accompanying thesis are not enabling people to play an active role in the activities of preservation, research or

communication by local museums. The findings in this thesis suggest that where there is a disconnect between visitor and museum professional descriptions of reasons for visits to museum collections in the real world, this is further exacerbated by the Web. This disconnect has been apparent in museums studies since Falk and Dierking's work in 1992. Falk and Dierking's Interactive Experience Model uses patterns of behaviour and considers social, cultural, physical and personal variables that affect those patterns (*ibid.*: 1-5). Figure 58 overleaf illustrates this model.

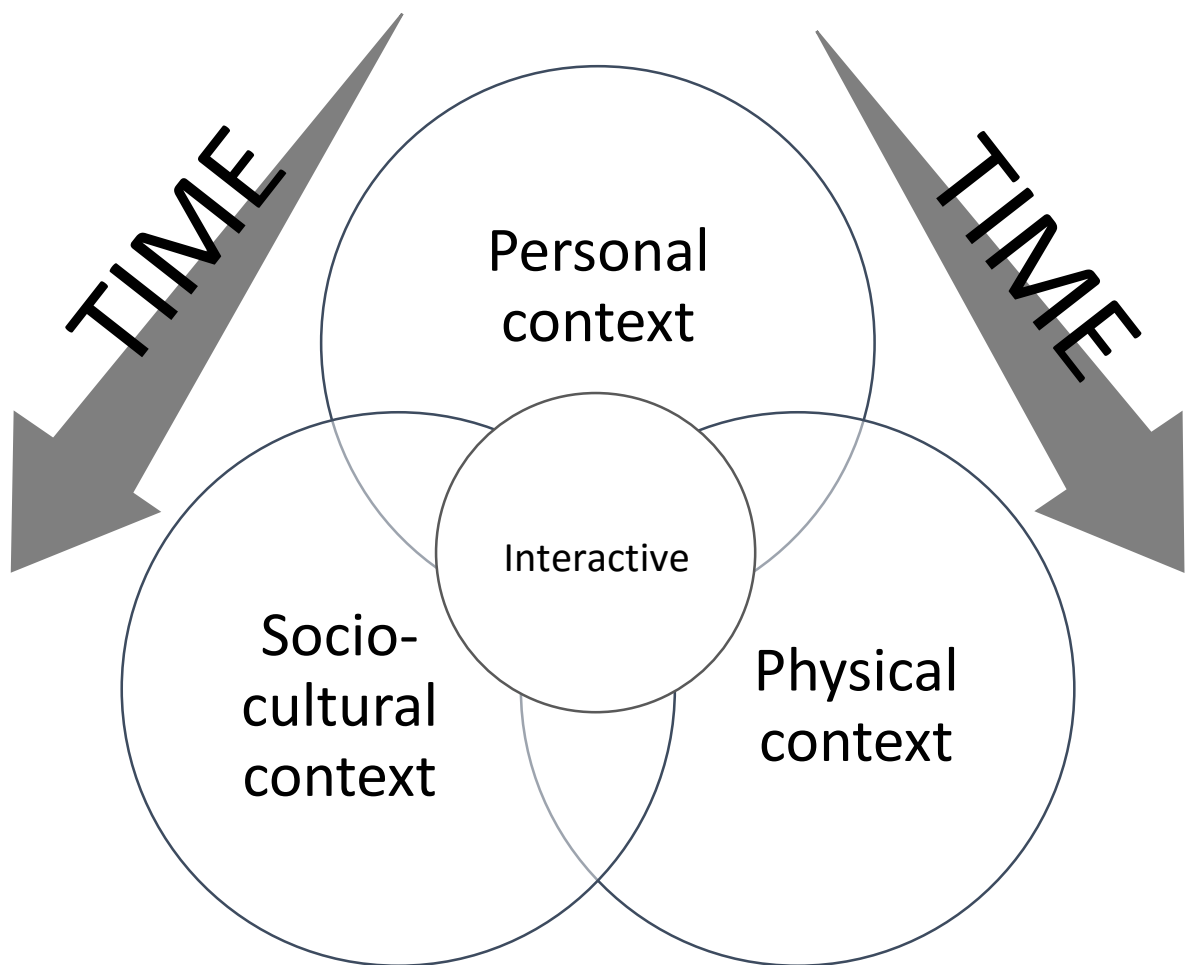


Figure 58 – Interactive Experience Model. Based on Falk and Dierking (1992: 5).

The model in figure 59 has been the established framework for audience studies in museums since the mid-1990s. The findings in this thesis suggest that an augmentation of this model is necessary for local museums making use of social media to facilitate experiences with heritage. Using a model such as this has led to the idea of incorporating into an *experience* of a museum through awe and wonder with more general leisure activities, such as an enjoyable lunch (Falk & Dierking, 1992: 83-5). Over time, the model has been extended to incorporate personal learning (Falk, 1999), identity construction, in particular in relation to socio-economic class and gender

(Pearce, 1998), individual empowerment (Sandell, 2003), and social value building (Hooper-Greenhill & Moussouri, 1999: 29). The model is based on the idea that time runs through all contextual aspects of an experience with a museum. Falk and Dierking's most recent version of the model is still based on three major phases of experience with a museum as before the visit, during the visit, and after the visit (2012: 30). More recently there is also a consideration of a further phase in the model: "*beyond the visit*" (2012: 294). Within these phases of experience, several key factors must be considered, and these are outlined in table 26 overleaf.

Personal Context	Sociocultural Context	Physical Context
<i>TIME</i>		
Experience with the institution of museum;	<i>With visitor:</i>	Architecture and feel of the building;
Experience with specific museum being visited;	Cultural milieu	Objects;
Developmental level;	<i>With museum:</i>	Events and objects experienced prior to and after visit
Preferred modes of learning;	Belief systems;	
Personal agenda - individual interests, attitudes, motivations	Social interaction factors whilst in museum	

Table 26 – Factors within each context of the Interactive Experience Model. Based on Falk and Dierking (2012: 30-33).

In the interactive experience model, museums act as a place to deliver other activities relating to these contexts. For instance, in this model museums act as a therapeutic centre (Silverman, 2002). Central to these individually focused facets is the importance of the museum supporting identity in its many forms; personal and public, as well as individual and societal. The model is based in learning theory, and assumes that an experience with a museum is based on a visit. This visit model does not however incorporate many of the other processes that occur today when experiencing a museum away from the museum building. The affordances of social media described in the thesis demonstrate that it is an instance in which the model does not stand.

Falk and Dierking's model considers a particular moment in time to describe an individual's experience with a museum. This thesis has explored how identity is an ongoing process that occurs within the context of social activities, and this is particularly manifest online. As per

Butler's work on performativity of identity (1990), identity is based within the reiteration of statements about the self. These occur *through* time and within several other contexts. Within social media, identity expression is occurring simultaneously across several platforms at the same time. For instance, a post left on a Facebook wall, a tweet made in Twitter, and a photograph shared on Flickr from the same event by the same individual can all express a different online identity concurrently. Local museums can contribute to the formation of identity by providing an additional mechanism for the performance of identity. Local museums can therefore act as spaces within which identity can be performed against alternate individualities, such as deviations from the norm and historical precedencies of identity enactment.

Falk and Dierking's model does not allow for this experimentation to occur as it assumes that at one particular time, the factors in table 23 above can be expressed because they are static. Social media has highlighted the fluid nature of identity, and this negates the Interactive Experience Model as it is described above. The model is based on the idea that a person visits a museum in order to learn something. This binary relationship assumes that the local museum is not gaining anything from the visitor, as figure 59 below illustrates.

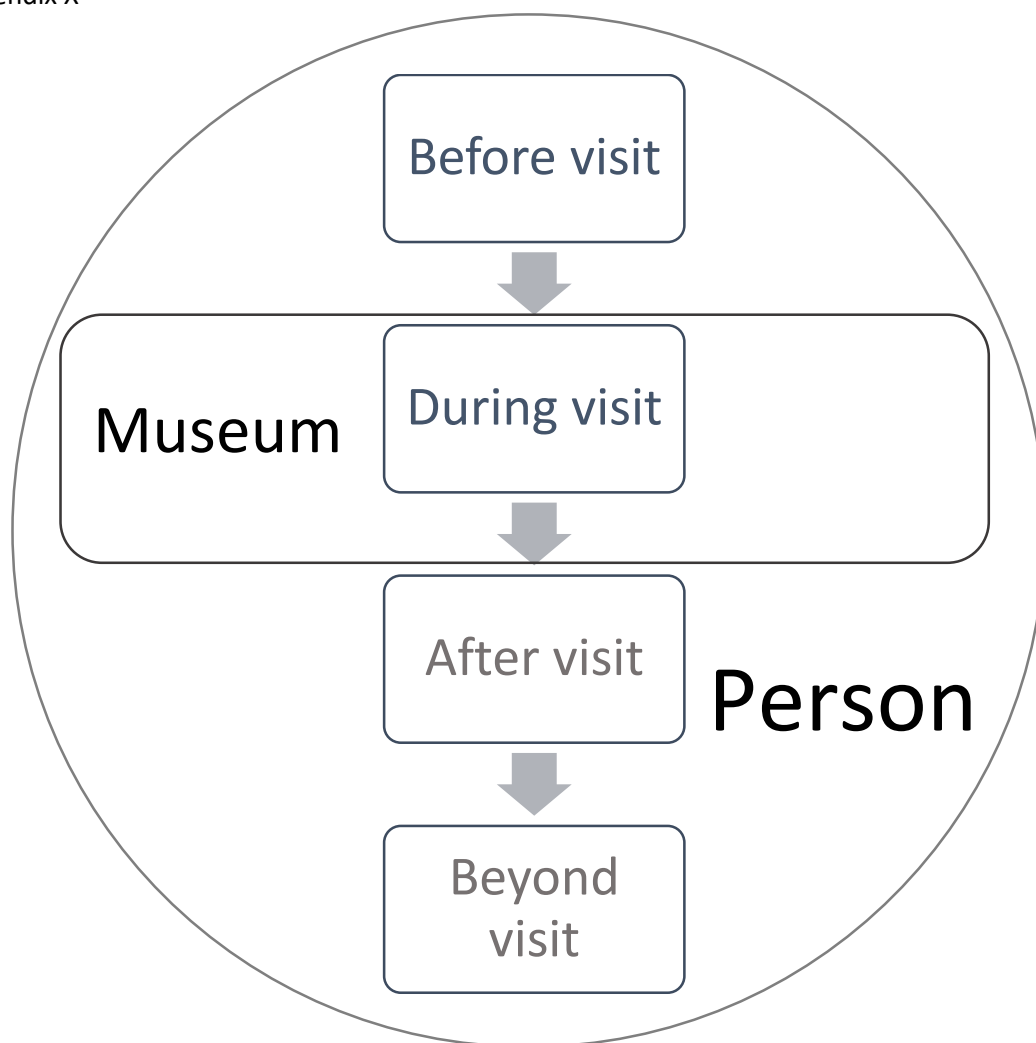


Figure 59 - Relationship between visitor and museum in the Interactive Experience Model.

In the model in figure 60 above, the local museum provides a situation within which the pre-, during, and post-visit experience can occur. The visitor is central to the experience. Despite the central locale of the visitor, they are passive in this model once they have brought their own context to the visit. The museum provides the resources which the visitor receives and experiences, based on their own personal situation, *during* the visit.

Figure 60 overleaf shows an amended model that is designed for an experience with a local museum that occurs through social media. In the new model of experience online, Smith's AHD is used to reconceptualise a relationship in which the visitor is equally significant to the museum. Both come together to enact an experience online. This experience is impacted by context of both the person and the museum. The museum and the person together create a Web-based contact zone.

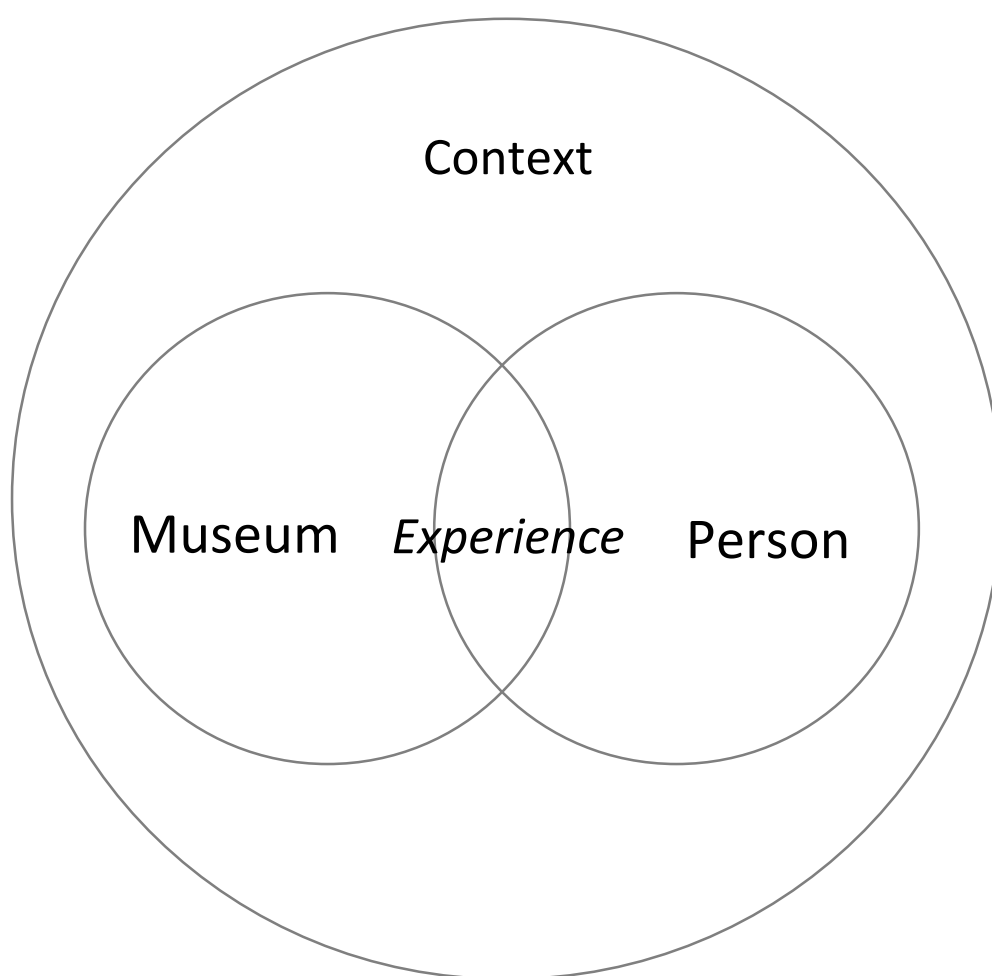


Figure 60 - Relationship between visitor and museum in the updated model of experience.

Conceptualising local museums as online contact zones for heritage experience frames the issues with which local museums are wrestling, and provides the potential new way to conceptualise the local museum experience online. The main contribution of this re-ordering of the experience model is to problems of maintaining relevance when time and space are brought closer together through the Web and where populations are increasingly mobile (Cangiano, 2014: 5). Many new populations within UK communities have been ignored because of AHD. There is a notable shift globally in the museums sector to move away from AHD, but this has tended to occur in the context of larger museums or to focus on substantial populations. For instance, in cities lesbian, gay, bisexual, and transgender communities are finding increasing support for their own histories (Vincent, 2014: 101). In smaller communities however significant parts of the population are still being cut out of AHD. This is something that improved use of social media by local museums can improve.

When applied online, the model in the earlier figure (figure 61) perpetuates AHD as it does not allow for true interaction to occur between people and local museums. This is the level at which local museums can make a contribution by better supporting communities' understanding and

Appendix X

awareness of the complex identities within the UK as it is currently expressed on the Web through enabling the enactment of heritage at a local level. This will only occur if local museums begin to engage in a new way with the possibilities outlined within this report.

Appendix Y Report for HCT: Evaluating social media

One particular need identified during the digital skills audit was a lack of capacity to evaluate use of social media within the organisation. As a response to this, a report has been prepared to evaluate three recommended methodologies that HCT can use to develop a process for evidencing impact from social media use. They are:

- The social media metrics toolkit, developed as part of Phase One of Culture 24 *Let's Get Real* project (Finnis, *et al.*, 2011).
- The balanced scorecard approach used by the Tate (Villaespesa, 2013b)
- Evaluating Participatory Projects, Chapter 10 of Simon's Participatory Museum book (2010: 301-320).

There is currently little advice available for the qualitative reporting of social media impacts, and this capacity has therefore been identified as a future area of research extending beyond this PhD. In general, quantitative social media monitoring prevails over qualitative reporting (Branthwaite & Patterson, 2011).

Some researchers within the sector have attempted to incorporate qualitative research into frameworks. Villaespesa's PhD research focuses on analysis of the social media accounts of the Tate and provides an example of the potential of combining qualitative and quantitative approaches to social media analysis (2013a, 2013b). Amongst others in the sector, Villaespesa makes use of the balanced scorecard approach to evaluate social media activities that are aligned to pre-defined performance measures (Zorloni, 2012; Villaespesa, 2014; 2015). The balanced scorecard approach has been used in the arts and culture sectors for some years as a way to map organisational aims to a system of measures (Kaplan & Norton, 1996; Weinstein & Bukovinsky, 2009).

Individual experience should take precedence over quantitative metrics within the context of local museums. In attempting to quantify social media use, local museums are reverting to the *Stretching further, Projecting louder, Looking bigger* model of social media use, mimicking national museums, as identified in Chapter 3 and 4. For a local museum, high impact activities may result in very few clicks on digital content, as interest in topics specific to space may be limited to a small group of potential communities.

Simon's participatory museum model is well-recognised within the sector, and offers a methodology for evaluation that is focused on the impact of activities not only on the participants of a particular activity, but on the non-participating audiences and staff members (2010: 302). In the case of local museums, as is evidenced at HCT, there is the additional group to consider: volunteers. This group connects paid staff to community members, and is often targeted through separate, standalone initiatives. In addition to Simon's evaluation advice, focus on volunteers could be reconsidered. In giving volunteers more emphasis within all activities, local museums could deepen the positive impact of their collections for these individuals.

There is a risk in the use of Web analytics that top-level results give a misleading picture of experience. Simon provides an example in which a Sydney-based museum sees from download total comparisons that one particular type of downloadable family resource on the museum website is more popular than others (2010: 315-316). However, additional interrogation of the data to report locations of users showed that the resource was popular with visitors from outside of Australia. A different type of resource was popular with Sydney-based Web users, but this had much lower download figures. The resources had been intended for local communities, and these results enabled refining of topics to improve impact at a local level.

In adopting these approaches there is less likelihood for content to be spread away from the originating space, despite the potential global reach of the Internet. Each individual click therefore should be weighted differently. This can be a simple case of pre-designing expectations for reach into the methodology for implementation. If a photograph shared on a Facebook page has an expected reach of 100, then each click will have a worth that is relative to the anticipated total. At a more advanced level of implementation, the process of evaluation can be established at the point of implementation through a commitment to respond to all comments to a Facebook photograph with feedback. Any responses to that feedback can be recorded and evaluated as significant experience.

Culture24's *Let's Get Real* initiative has resulted in the contribution of a significant resource to the museums sector. The framework that spans several years has iteratively built a bank of resources. In the recommendations for social media use, the second *Let's Get Real* report advises:

"The lack of definition of standard metrics represents an obstacle for social media teams to demonstrate the value of their activities and for senior management to understand the results and to make decisions based on this data." (Malde, et al., 2014: 36)

The second report was published during the write-up period of this PhD, and as the methodology for this research is adaptive, this work has been incorporated into this appendix. The thesis demonstrates that for local museums it is from a far more profound level that the barriers to embedding social media stem. The examination of the obscured affordances of social media in Chapter 4 and 5 of the thesis highlights this issue. At the point of evaluation, *Let's Get Real* suggests a framework that presents a set of indicators that have associated tools for measurements for social media impact. Arranged in columns by aims, the tools are described in brackets after each boxed indicator. See figure 61 overleaf.

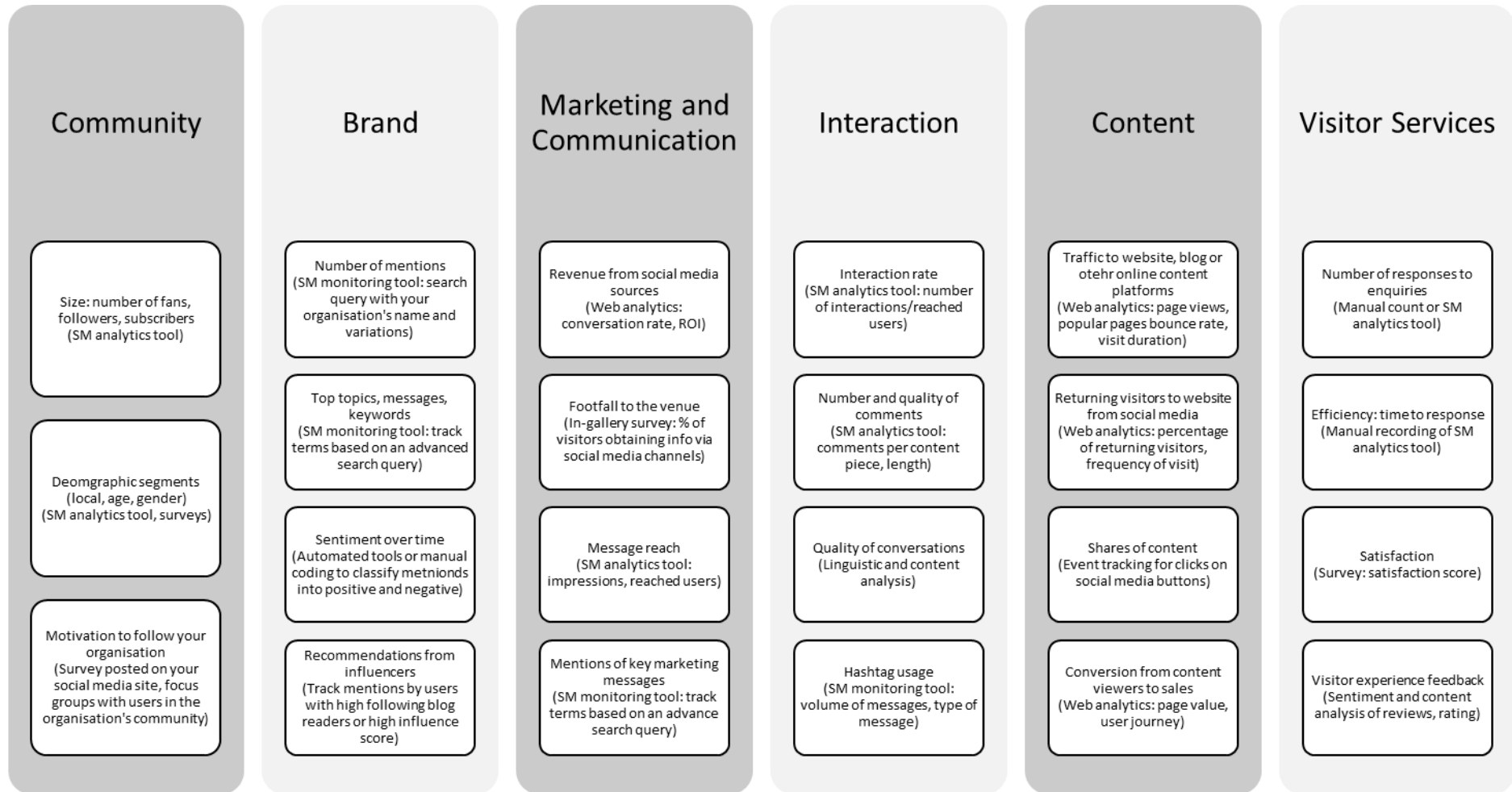


Figure 61 - The social media evaluation framework, from Let's Get Real (Malde, et al., 2014: 37, figure 10).

The *Let's Get Real* framework requires several tools to be used to measure impact. Of these, the majority are digital tools. These include:

- social media analytics tools
- online surveys
- tracking tools
- manual coding
- social media monitoring tools
- search tools
- linguistics analysis/content analysis
- Web analytics
- event tracking.

The non-digital evaluation methods are manual counting, manual recording, and in-gallery surveys. These are only listed once, whereas social media monitoring tools and Web analytics are suggested as methods several times. These tools require different digital skills to gain the insights suggested for each indicator. In order to gain a better understanding of the abilities required for each indicator, the functions within the tools was mapped against the Go ON UK Basic Digital Skills Framework for organisations (2014). The annotations on figure 62 overleaf shows the correlation between basic digital skills as anticipated by the UK Government and the *Let's Get Real* recommendations. Figure 62 highlights the predominance of digital tools within the framework. In addition to this, when a prerequisite skill is beyond the basic digital skills requirements for an organisation, a star has been added.

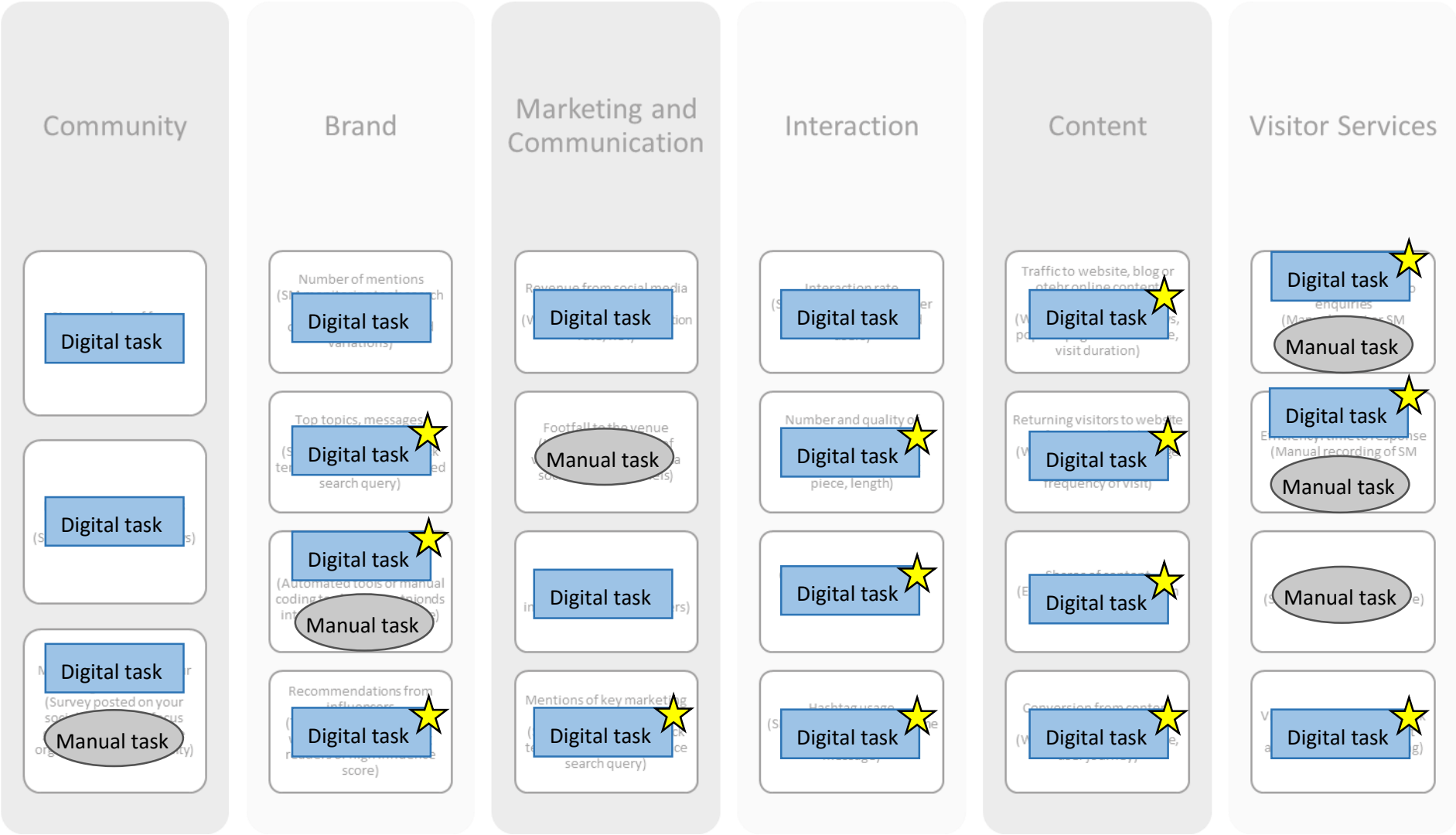


Figure 62 – Annotated version of the Let's Get Real framework (Malde, et al., 2014: 37, figure 10; The social media evaluation framework). Tasks are identified in the annotations as manual or digital. When both are present, tasks can be either manual or digital, or require a combination of both. Stars are representative of the skills level required surpassing the basic digital skills for organisations, as per Go ON UK (2014).

As with all evaluation, a combination of methods will result in a more comprehensive view onto the data. Qualitative approaches currently used in the museums sector can be modified and used to evaluate online experiences. Communicating directly with social media users is often possible, and this can provide a more expansive view into individual and community experiences. Direct communication is suggested in this framework, but through surveys rather than immersion. Several methods could be incorporated in order to include verification of interpretations by involving participants on an individual basis. Unfortunately, development of such a methodology is not within the scope of this thesis. A future aim will be to progress this initial commentary to an addendum to the *Let's Get Real* framework that outlines a mixed methods toolkit to increase qualitative data gathering and analysis.

The MUSM booklet that accompanies this research aims to move away from an emphasis on quantifying social media use, and instead describe storytelling as a key activity for the establishment of social media use within a local museum. This report encourages MUSM framework users to consider the potential of reporting experiences with social media through social media tools and platforms. Using social media at an institutional level, for communication between paid staff and volunteers or to report activities to governing bodies, could improve advocacy in future use of analogous tools and platforms for working with audiences. It will also increase the skills level of governing bodies, staff, and volunteers, improving accumulatively confidence in social media use more generally.

The three approaches evaluated above are included in the www.localmuseums.org website as useful resources.