

Local government cultural economy data practices and futures: Capacity, decision-making and partnerships

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Abstract

This article investigates local government cultural economy data practices in England (UK). Engaging with academic literature and policy reports, it highlights the following issues relating to these data practices: types of data; the context and drivers for using data; the possibilities and challenges of data volume; and training and expertise required to position data in relation to strategic decision-making. Engaging with the authors' research project with local government councillors and data officers working in local authorities in England, this article provides insights into situated experiences and working contexts. The analysis reveals specific challenges and opportunities around resources and capacity, decision-making and partnerships. These data practices and challenges are critically examined through perspectives from critical data studies and the data feminism principles of context and visibility. Insights and issues are raised around decision-making, intuition and capacity, expertise and gatekeeping and more encompassing concerns around data characteristics and social power. In response, approaches from data literacy, namely data biographies, are explored to inform interventions into local government cultural economy data practices.

Keywords

Critical data studies, cultural economy, data biographies, data feminism, data literacy, local government

Introduction

This article investigates local government cultural economy data practices in England (UK) by critically examining what data are generated, by who, why and how. As Douglas-Jones et al. (2021: 12) suggest, 'to study the nation-state, health systems, judicial systems, the economy, or scientific communities is to come up against infrastructures, practices and discourses of data'. This is certainly the case for the cultural economy.

Firstly, academic literature and cultural sector and policy reports are used to establish and examine local government cultural economy data practices and outline the prompts and interventions from critical data studies and data feminism (D'Ignazio and Klein, 2020). The methodology outlines the focus group research methods to respond to the research question, 'what are the cultural economy data practices and experiences of local authorities in England?'. The findings examine three themes identified in the focus groups data using thematic analysis: resources and capacity, decision-making and partnerships. It connects these themes to critical data studies and the data feminism principles of context and visibility. In doing so, it raises specific challenges relating to decision-making, intuition and capacity, and expertise

and gatekeeping and more encompassing concerns around data characteristics and social power. Firstly, addressing capacity goes beyond having more data officers to exploring data literacy and the characteristics of that data. Secondly, using data for decision-making must consider the role of intuition and the ongoing impact of established narratives. Thirdly, partnerships must be evaluated in terms of social power, visibility and gatekeeping and how certain data practices can be repeated and reinforced. In response, the discussion addresses the potential of approaches from data literacy, namely data biographies, to inform interventions into local government cultural economy data practices.

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Local government cultural economy data practices

As Kitchin (2014a) explores, there is a long history addressing the potential for data to inform government decision-making. Alongside accounts evaluating how ‘properly utilised’ big data can bring ‘astonishingly positive outcomes for public administration in terms of its efficacy, efficiency and overall client satisfaction’ (Maciejewski, 2017), are perspectives which position data in relation to policy formation and draw out tensions in how government desire for evidence-based decision-making aligns with prior goals and political priorities (Höchtel et al., 2016). Within the wider context of public administration data revolutions (Kitchin, 2014a), there is increasing focus on how the generation, analysis and communication of data are vital for understanding and positioning the significance of culture and creativity to economic and social life. This literature review examines extant understandings and perspectives on current and emerging cultural economy data practices.

Given the focus on England (United Kingdom), the term cultural economy is used. Gibson and Kong (2005: 542) suggest ‘cultural economy’ for the way it corresponds with ‘similar terms such as “creative economy”, “cultural industries” and “creative class” [...] all of which describe a space where the “cultural” and “economic” collide’. In terms of local government contexts, Hesmondhalgh et al. (2015) highlight a UK New Labour government (1997–2010) shift in cultural policy rationale to economic and social goals. The value of culture for socio-economic (and other) goals has received sustained scrutiny (Belfiore, 2004; Anzel et al., 2023). In terms of local government, the value of culture is being explicitly aligned with existing corporate plans and policy frameworks. For example, cultural strategies in England that connect culture with place, health and wellbeing, the economy and climate change (Ashton and Bell, 2023) and local government arts development in Ireland as the public administration of place (Durrer, 2023).

Gibson and Kong (2005: 542) examine ‘prescriptive recommendations for economic development’ as normative policy scripts and highlight the status and relevance of data for measuring impact (the ‘creative index’). Examining the significance of data for articulating cultural value, Gilmore et al. (2017) highlight advocacy (see also Moore, 2016) and audience development and segmentation (see also Nesta, 2018; Ashton and Gowland-Pryde, 2019). Whilst, as Walmsley et al. (2022: 5) set out, ‘the primary source for quantitative data is developed for, with and by cultural sector organisations (data relates to programming, management and marketing/fundraising offers opportunities for learning and evaluation)’, it is important to consider local government’s own cultural economy data practices. Data are increasingly necessary for local authorities – being

mobilised for advocacy (Selwood, 2019) and underpinning how value is articulated in the face of austerity measures (Rex and Campbell, 2022). The following sets out four specific issues relating to local government cultural economy data practices, employing Kennedy et al.’s (2020) term ‘data practices’ to refer to ‘the systematic collection, analysis and sharing of data and the outcomes of these processes’.

Firstly, extant literature (e.g., Lilley and Moore, 2013; Nesta, 2018) outline types of cultural economy data that are gathered. Walmsley et al. (2022: 13) provide an instructive overview of the data landscape in the not-for-profit cultural sector:

Finance, accounting and governance; cultural programming, collections management and acquisitions; development and fundraising; marketing and audience insight, including digital data insight; monitoring and evaluation (including for education and outreach and reporting to funders

This usefully connects with, MyCake (2021: 18) who provide a table of data holders and types of data which covers five sectors (film; theatre and performing arts; music; heritage; museums and galleries) and identifies data holders in terms of organisations, assets and resources, services, engagement and users. Literature and reports provide insights into the range of data types and source and highlight the need to consider the purpose for generating and using of data (e.g., advocacy, decision-making) and challenges in using data (e.g., access and volume). As Ashton et al.’s (2024) examination of UK City of Culture data relations explores, there are local histories and infrastructures of data generation with varying expertise and capacity which can lead to data frictions around the types and quality of data.

Secondly, literature and reports provide insights and enables reflection on decision-making as a context and driver. Selwood (2019: 185) suggests several drivers for the exponential growth of English cultural sector data: ‘the possibilities offered by new technologies; on-going, top-down demands for better utilised data; persistent expectations of audience growth; the continuing culture of advocacy and celebration of success’. The final point on advocacy highlights the significance of data-driven decision-making for and in the cultural economy. In *Counting what counts*, Lilley and Moore (2013: 13) suggest that the benefit from the potential of data can be realised in becoming a ‘data-driven organisation’ where strategic decisions are ‘informed by data wherever possible’. Picking up the question of how data and decision-making align, Walmsley et al. (2022: 6) set the research context for their report in stating that, ‘cultural data is incoherent and poorly aligned to national policy questions and decision-making processes’. Positioning Lilley and Moore (2013) in relation to Walmsley et al. (2022), writing almost 10 years later, shows that despite the aims and

ambitions for cultural economy data, there are significant, long-standing challenges. As Belfiore (2022: 23) summarises, ‘it is widely documented that explicitly instrumental policies are increasingly popular, in Britain and beyond, despite mounting evidence that the underlying data and performance measurements are often flawed and methodologies for their collection either dubious or under-developed’.

Thirdly, literature identifies a reoccurring challenge with cultural economy data practices concerning the volume of data and what this means for effective engagement. For example, Nesta (2018: 9) point to the importance of a ‘more systematic and rigorous approach to capturing and analysing data’. For Nesta (2018), current data practices can hamper the success of strategic decision-making, for example around audiences and assets. The Local Government Association (LGA) Creative Places Report (2020: 18) clearly articulates this, noting that whilst the cultural and creative industries are assets to local economies and communities, ‘councils, sector bodies, government – as well as businesses and investors – all struggle to find data which is specific to the creative part of a local or regional economy’. More recently, MyCake (2021: 21) identifies three immediate challenges:

1. fragmentation: there is no single source of data for the cultural sector;
2. harmonisation: data definitions are not harmonised across these various sources, making difficult comparison and aggregation; and
3. coverage: there are undoubtedly gaps in the data coverage

Similar challenges around the use, fragmentation, documentation and quality of datasets have been explored more widely across public administration in the United States and Europe (Conradie and Choenni, 2014; Ku and Gil-Garcia, 2018).

Fourthly, literature on training and expertise provides a further lens to examine these points on strategic decision-making and navigating volumes of data. Training and expertise are issues that resonate more widely in studies of public administration. MyCake (2021: 9) suggest that ‘to make data-driven decision-making the norm across the cultural sector, government and sector bodies need to help “build the field” – growing and convening a community of skilled researchers and analysts working with cultural sector data and evidence’. Also addressing resources and training, Walmsley et al. (2022: 5) highlight that ‘cultural organisations lack the resources to employ data scientists to benefit from data already collected or generated’. These points are particularly important when considering the implications which Moore (2016: 109) highlights where those with experience and expertise might become the ‘go to’ person and ‘the gatekeeper for the narratives which the institution can tell’.

To critically examine the cultural economy data practices and experiences of local authorities in England, this article takes the insights and recommendations from Nesta (2018), MyCake (2019) and Walmsley et al. (2022) and introduces perspectives from Critical Data Studies (CDS). As Illiadis and Russo (2016: 1) set out in their discussion of CDS, ‘in their presence and absence, data are always-already active and never neutral’. Similarly, Posner and Klein (2017: 3) suggest that ‘data sets never arrive in the world fully formed, but are assembled from tangles of historical forces and ideological motivations, as well as practical concerns’. These insights and interventions provide the impetus for advancing the focus on practical challenges and recommendations around local government cultural economy data practices to more far-reaching questions of power. More specifically, D’Ignazio and Klein’s (2020) *Data Feminism* provides a sustained focus on issues of power and emphasises practical strategies for data scientists. This article creates this meeting point of power and practicality as a means to reconnect with the participants and potentially inform local government cultural economy data practices.

D’Ignazio and Klein (2020) set out seven principles of data feminism. These principles emerge from intersectional feminist thought – questions of power and challenging power are central and this requires rethinking hierarchies and synthesising multiple perspectives. For this article and the examination of local government cultural economy data practices, two principles provide particularly pertinent and powerful critical prompts. Firstly, D’Ignazio and Klein’s (2020: 1) principle of ‘context’ asserts that ‘data are not neutral or objective’ and are ‘products of unequal social relations’. For this article, this means going beyond identifying and noting different cultural economy data origins, sources and volumes to question the implications of these differences and disparities. Secondly, D’Ignazio and Klein’s (2020: 1) principle to ‘make labor visible’ makes explicit that data science is the ‘work of many hands’ and this must be visible ‘so that it can be recognised and valued’. For this article, this prompts the analysis to go beyond suggestions for more training and sharing best practices to question the power dynamics of decision-making and the barriers relating to who can speak for and with data.

Methodology

The above literature explores several issues around local government cultural economy data practices. It also highlights an absence in empirical research with local authorities into their cultural economy data practices. There is related research with creative practitioners and organisations (Selwood, 2019; Walmsley et al., 2022); dataset managers in government (MyCake, 2021); and cultural sector bodies and networks (Parkinson et al., 2020; MyCake,

2021). This article presents and analyses findings from a project that specifically asks, ‘what are the cultural economy data practices and experiences of local authorities in England?’

The research project combined secondary analysis of webpages (stage 1), a questionnaire (stage 2), focus groups (stage 3) and a knowledge exchange workshop (stage 4). Research ethics approval was secured by the University of Southampton (ID: 70379), ensuring robust research integrity and data management. A ‘messy data’ approach (D’Ignazio, 2017) was used to correspond with local authorities’ experiences (i.e., fragmentation). The emphasis was on enabling participants to explore diverse data practices relevant to their context. The ‘messy data’ approach connects with suggestions from Kitchin (2017), Dencik (2019) and Reutter (2022) on research into specific datafication projects and their contexts. Revising this suggestion, this project focused firstly on the contexts and then specific datafication projects participants mentioned. Overall, this project aimed for the kinds of rich observations ‘made possible through situated, empirical studies on datafication in public administration in specific contexts, rather than attempting to make more abstract, general observations’ (Reutter, 2022: 917). This said, a consideration and limitation with this project is perpetuating the Euro-America focus that dominates the scholarly literature on data (Douglas-Jones et al., 2021). Future research on situated local government cultural economy data practices should challenge normative assumptions (Arora, 2016) and explore the implications of thinking data from the margins (Milan and Treré, 2019).

Secondary research

The first stage of the project was webpage searching (Mansourian and Madden, 2007) to identify and obtain contact details for data officers from each of the 333 councils in England (as identified using guidance from UK Government, 2021). These include the following ‘local authorities’ – metropolitan districts, London boroughs, unitary authorities, county councils and district councils. The process involved searching for ‘data officer’ on the Google search engine and on the websites for each of the 333 local authorities in England. This proved challenging, most notably, as local authorities have different way of organising their website – making locating contact information and organisation charts difficult. This accords with Walmsley et al.’s (2022: 12) experience and the challenge of finding a ‘single figure in an organisation with sole responsibility for the range of data sources we were asking about’. Where data officers could not be identified or contact details located, the portfolio holder or chair for culture or an associated working group was used. When an appropriate person’s contact information was located,

this was used to recruit data officer or local councillor participants via email.

Questionnaire

For the second stage, a questionnaire was designed and circulated with the aim of generating a broad understanding. However, there were only 18 completions – a very low response rate given the potential sample of 333 local authorities. Through exchanges in the focus groups, it was clear the response rate was due to overlap with ongoing local elections. This led to the reflection on the ‘turnover’ of councillors and that subsequent iterations of this fieldwork could involve individuals newly coming into roles. Given the limited response rate, the questionnaire responses were only used to inform questions asked during focus groups.

Focus group

For investigating data practices and experiences, the third stage used focus groups for their ability to generate in-depth discussion (Buckingham, 2009). Whilst consistently positioned as ‘outsiders’ to the local authority settings and practices under discussion in the focus groups, the researchers/authors were attentive to specificities of ‘place’ from which participants spoke to and from and to the different dynamics in the focus groups. As Philo et al. (2021: 38) note in their discussion of positionality, it is ‘in the process of reflecting’ upon position that it becomes positionality. Both researchers/authors were present in the focus groups, which helped enable different relational positionalities to emerge and prompt critical reflections on researcher self-presentation across the focus groups and the research project stages.

All focus group participants received a participant information sheet and signed a consent form. Focus groups were organised according to participant and researcher schedules. Four focus groups were conducted with ten participants in total. As noted above, the ongoing local elections in England at the time potentially impacted on potential participants’ capacity to engage in this research and circulate invitations. Three out of four of the focus groups had a mix of local councillors and data officers. Focus group participants came from a diverse range of places, from large cities and boroughs to large rural areas with many villages. As Philo et al. (2021: 38) suggest, research data are ‘inextricably co-created between positions and through relationships’ and the differing composition for the focus groups was significant for creating differing dynamics of expertise and reflections around capacity. The focus groups were conducted on Microsoft Teams, recorded using the internal recording system and transcribed using NVivo qualitative data analysis software. Although each focus group followed the flow of conversation, they covered the same materials.

Participants were asked to introduce themselves, their role and why participating in this focus group was of interest. Subsequent questions focused on the collection, management and the use of data within the council and future directions for data collection and analysis. Participants explicitly reflected on the value of the focus groups for sharing practices and networking. The focus groups ended with an invitation to participate in the end of project knowledge exchange workshop. There was saturation by the fourth and final focus group, which accords with Hennick and Kaiser's (2022) observation that saturation can be reached with four to eight focus groups, especially with a relatively homogenous population and narrowly defined objectives. The findings from this project also resonate with another project with local authority officers as participants that one of the authors (Ashton) was involved in (Owen et al., 2023).

Data analysis

Seven coding categories were used to analyse the focus groups. A coding category, as Saldana (2013: 9) outlines, 'is a method that enables you to organize and group similarly coded data into categories or "families" because they share some characteristic'. The construction of the coding categories was iterative with the two authors engaging in inter-coder reliability assessment to promote dialogue and

transparency (O'Connor and Joffe, 2020). Table 1 below outlines the coding categories used:

By focus group four saturation was evident with four coding categories: definition and values; strategy; learning; decision-making. These are largely contextual and sector-wide issues, for example around the value of culture and learning networks. By conducting more focus groups, further insights may have been gained in relation to the three codes at the level of specific organisations: practices; collaboration; organisational structures. In turn, the knowledge exchange workshop provided some further assurance concerning saturation and that findings from the focus groups resonated more widely. Thematic analysis was then used to identify and explore patterns across the data (Fereday and Muir-Cochrane, 2006). Three themes identified during the thematic analysis are used to structure the presentation of findings: capacity; decision-making; partnerships.

For presenting findings in this article, each participant has an identifying code that references the focus group (i.e., FG1P1; FG3P2). As the selection of pseudonyms was not discussed with participants, the more general identifying code 'P' for participant was deemed more appropriate than creating and exchanging names (see Allen and Wiles, 2016). Table 2 below provides an overview of the codes used and for each participant their role and council type (see UK Government, 2021 for a definition).

When quotes are provided, they are introduced with some contextual information on the participant's role. This approach allows consideration of the participants' involvement in focus groups being framed in several ways as a: representative of an organisation in a specific role; professional undertaking a role within a larger occupational or sector framing; individual with varied career backgrounds and aspirations.

Knowledge exchange and reflection

For the fourth stage, a knowledge exchange workshop reflected on findings and shared emerging analysis There

Table 1. Coding categories.

Coding category	Description
Definitions and value	Statements on the definitions of culture that participants use, the value of culture and the importance of culture.
Strategy	The rationale behind the reasons for data collection, including cultural strategies and target key indicators.
Practices	The story of the data: who collects the data, how, where it currently goes and possibilities for future of data collection.
Collaboration	Organisations, people and institutions that a local authority partners, collaborates, or shares data with.
Organisational structures	The wider context of the practices and strategy for data collection including the resources available for data collection, budget, staffing capacity.
Learning	Reference materials shared (e.g., reports, organisations), sources of information/instruction accessed and opportunities available and engaged with (e.g., events, courses).
Decision-making	What the data can support and do and why it is important (i.e., making the case for funding; telling stories of participation and engagement)

Table 2. Participant codes with information on role and council type.

Identifying participant code	Role (councillor or data officer)	Council type
FG1P1	Councillor	Unitary authority
FG1P2	Data officer	Metropolitan
FG2P1	Data officer	Metropolitan district
FG2P2	Councillor	London borough
FG3P1	Data officer	Metropolitan district
FG3P2	Councillor	District council
FG3P3	Councillor	District council
FG4P1	Data officer	District council
FG4P2	Data officer	District council
FG4P3	Councillor	London borough

were seven participants – six who had participated in focus groups and one who had not participated at all. The workshop approach was informed by Belfiore's (2016) reflections that the impact of cultural policy research can be conceptual – formulating problems and challenging existing notions. Belfiore (2016: 213) also suggests that impact is 'a collaborative, collective effort on the part of the scholarly community, rather than the almost miraculous, forceful and planned effect of a single piece of research on individuals and the world'. In this respect, the workshop contributions were approached as collaborative discussion rather than the dissemination of findings.

Findings: Capacity, decision-making and partnerships

The questionnaire, despite the low response rate, effectively gathered the types of data that participants knew were being gathered within their local authority. The following aggregate list from the questionnaire and focus groups provides an instructive starting point and overview:

Annual survey data; funding, trust & arts foundation applications; demographics data; health inequalities; business grants; ONS data on cultural and creative sector based on business registrar; audience, agency, segmentation and engagement area profile data; creative and community consultation; benchmarking data within the region and nationally; health and wellbeing information (i.e., based on Edinburgh health scales); financial performance indicators; movement of people and how they spend their money; jobs; visitor data.

This overview can be combined with the section on types of data sources in part one. It demonstrates the above claim on the significance of cultural economy data generated by local authorities. It is though only a starting point for understanding the experiences and practices of local authorities. These are now examined using the three themes identified through thematic analysis of the focus groups: capacity, decision-making and partnerships.

Capacity

This theme focuses on local authorities' capacity for, amongst other things, data collection and analysis. Most pressing was the issue of financial resources and participants consistently referenced the decline in local government spending that has been examined in several reports (see Rex and Campbell, 2022). Financial challenges and uncertainty were also referenced to the unfolding impacts of Brexit (Mattocks, 2021), the Covid-19 pandemic (Walmsley et al., 2021) and the cost-of-living crisis (Torregiani, 2022).

Addressing ongoing and overlapping financial challenges, a councillor from a unitary authority sets out the wider impact on cultural provision:

[...] we have got to deliver basically two thirds of our entire financial budget on social care and children's services and things like that. We [Culture] get the smallest bit of the pie, but we are often the one that's front and centre – making the news and doing the things that really matter. (FG1P1)

Explicitly addressing resourcing challenges in relation to local authority cultural economy data practices, the following participants set out their context and circumstances:

There was an officer recruited to look after it [data collection and analysis], and that post was made redundant. So, at the moment, we have no officer support for it. (FG1P1)

We have secured an officer who will be leading on a lot of that data for next year [...] the immediate legacy of it. But then beyond that, it's very much back down to my team to be able to report on the long-term numbers in terms of how that's changing things. (FG1P2)

These comments present two scenarios united by uncertainty. The first, from a councillor, is that long-standing financial challenges have impacted on dedicated staff resource for data collection and the analysis and the second, from a data officer, is that staff resource is project-based and therefore time limited. In both scenarios, the possibilities for undertaking sustained data collection and analysis are limited. Changes in councillors, who are elected for a period time, compound this and their differing familiarity with data generation approaches and analysis. Even where there is dedicated staffing resource (albeit project-based), the question of capacity remains. FG1P2 outlines how given the scale of the project being undertaken, it has been a 'huge process' to set up the relevant dashboards for data analysis and how their monthly reporting is time-consuming. These insights suggest that even where there is dedicated staffing and expertise, the attention and demands data analysis places on an organisation as a whole are significant.

There is an argument that project-based funding can provide a catalyst for the data infrastructure and help to set this up for the future. In turn, these insights around what is involved and the impact of project-based funding on staffing provide evidence of the challenges of maintaining the data infrastructure, being able to employ staff with the necessary expertise and having the organisational capacity to realise the potential of data generated. Whether it is the scenario described by FG1P1 on the absence of funding or the scenario described by FG1P2 on the temporality of funding, there is a resources and capacity challenge in being able to create and maintain sustainable cultural economy data practices.

Decision-making

This theme addresses how data are created for and used within local authority decision-making processes, including the documents and mechanisms (e.g., cultural strategies; corporate plans) in which decisions and visions are set out.

The significance of culture articulated by a data officer in a metropolitan district council resonates with several participants and sets out the context for decision-making which participants orientate to and reflect on:

For us try and improve the health and wellbeing of the city, we must address things that actually make sure people have got good communities to live in, some type of job which gives them a bit of satisfaction and a bit of purpose in life, and having a friend. And [things] that helps shape how people feel about their local place a lot better. (FG1P2)

A councillor in another focus groups offers a similar perspective on the importance of culture and provides insight into how this is articulated in relation to, what are described as, other ‘corporate priorities’:

It’s all about impact. You need to know the corporate strategy and the corporate priorities inside and out around health, economy, prosperous place, climate and everything like that. And you need to be able to prove it. And we need to get switched on in arts and culture, to make sure that we can actually prove; which is why we all started doing our health measures when we’re doing arts and health programs. You have to talk about it in other people’s language and it has to be their impact, impact measures and evaluation that are utilized. (FG4P3)

Brought together, these two accounts reference how local authority participants in this research connect culture to a range of concerns and how this then shapes the evidence gathering of data and the evaluation of culture programmes and activities.

Having established the importance of culture as the context and driver for various local authority strategies and initiatives, a follow-on issue is how data connects. A data officer in a district council (FG4P2) uses the idea of a ‘decision tree’ with ‘pathways’ to address on how data practices align to decision-making. They ask the question, ‘what information is required [and] where does it go?’ and they emphasise that, ‘it’s no good to have all this information if it is not going anywhere or having any impact’. Another data officer (participant FG1P2) sets out specific ways in which data feeds into those strategies and initiatives:

The first one is our cultural strategy data, but that’s what we are doing in house. There is very, very little data – mostly non culture – that could be used for culture purposes.

Second thing is on the [specific initiative] devising a page that sets out our progress reports. (FG1P2)

A different participant (FG1P1), a councillor, in the same focus group similarly raises the issue of data availability and the pressing need for it to inform decision-making relation to the cultural strategy:

We are laying out a three to five year plan [...] to try to drive initiatives forward underneath that cultural strategy. We are not rife with statistics – we’re a very statistic poor kind of area, and we’ve had a lot of challenges trying to get key indicators.

This first point on the absence of appropriate data, including how and with what resources to collect and /or analyse it, needs considering terms of the bigger, diverse picture with variations on what is available across the sample of local authorities participating in this research project and across local authorities more generally. The second point reconnects with the earlier point from FG4P3 on proof, evidence, measurement and evaluation.

Two participants in FG4 provide the most explicit discussion of how data are necessary and has power and standing in decision-making. Firstly, in the following a data officer with a district council (FG4P1) works through the intricacies of how data are required for conversations around the importance and impact of culture and how data has an evidential status and substance:

You need to prove the worth of what you’re trying to do. Is it return on investment? Is it value for money with the wider social impacts? Whatever it is, there will be people to say ‘this is what we are looking to achieve’, and ultimately, what we’re trying to say is that parts of culture can help you do that. But in order to do that, we need to be speaking, or demonstrating that the language is the same. ‘Yes, you want to do X. This can deliver X because we can prove it. We’ve got the information there that shows that we’ve engaged with these people, the outcomes of this.’ Therefore, if you are looking to engage with those people and have those outcomes, [data] is a great vehicle to do it. And that’s why it’s useful to know what the language is, but also to be able to use the data that we have to fit that mould. (FG4P1)

FG4P1 elaborates on how data are folded into specific narratives as part of a coherent package in proving the value of culture. Data seems to have an authoritative status in decision-making, but this needs coupling with an understanding of context and how to articulate the data to that context. This comes across clearly in comments from another participant, a councillor, in the same focus group:

People won't want to see the full spread of that data. They want to understand the story that sits behind that. We do want to economically make an argument at an authority level [...] that means getting the data into certain publications in front of partners in different ways. And unless we've got that capacity to translate data, which is very much from the cultural sector into those narratives, then we miss those audiences. And so who sits in that space to translate something that's quite important. (FG4P3)

These comments explicitly detail how data are communicated for effective decision-making. These comments also help make the link to capacity in addressing the challenges that local authorities can face with issues of resources and expertise. As this councillor with a district council makes clear, understanding culture and understanding data are not the same thing and cannot be assumed:

I'm very fortunate with my officers that are very culture orientated, but they're not very good at data collection. So I keep on saying, you must have numbers, we must know how many people are coming because people will scrutinize this and say, 'what's going on?' But you know, we are early days. We need to work on that. (FG3P2)

This point on it being 'early days' expresses how the capacity for decision-making is bound up with resources issues and the capacity of the local authority to have the required expertise and trained staff in place.

Partnerships

This theme addresses participants' accounts of relationships with partner organisations or consultants for gathering and sharing data. This includes improving how to use data and learning about different data practices.

The first finding under the theme of partnerships focuses on the role of local authorities as enabling projects, rather than doing everything themselves. To start, this can be about the kinds of input and influences a council should be making. Reflecting on the development of a cultural strategy/manifesto, FG4P3 reflects on relationships with consultants and notions of ownership and facilitation:

The council's role was very much to facilitate that conversation [with consultants]. We genuinely have public input into the development of the manifesto – the intention being it is owned by the sector and driven by the sector. It was always a foundation of the manifesto that a partnership would be in place and that the council could help to facilitate it, to have its own independent chair and grouping, and they would have oversight for driving that manifesto forward. [...] It is really now about us providing that facilitation and enabling role rather than being seen as the lead body for that piece of work.

Connecting with the theme of decision-making, FG4P3 is suggesting a scenario and process in which a council facilitates both the generation of data (e.g., public input and consultation) and how data are employed for a particular end (e.g., a cultural strategy). Whilst partnerships for the creation of a manifesto/strategy is explicitly stated, partnerships relating to working with a consultancy agency is also raised. This nuances the earlier account of capacity and resourcing by highlighting other aspects of what local authorities do and what they enable. This is most explicitly presented in the following: 'Partner organisations help with the jobs the council does not have capacity or budget for in-house' (FG2P1). This clearly connects with the contexts and challenges of resource and capacity.

Partnerships with universities were elaborated on by two participants. FG3P1 considers the local context in terms of the number of universities and how the focus seems to be around course links. FG1P2 addresses the university relationship more explicitly in terms of capacity and support; 'local universities are important partners and support the work of the local council' (FG1P2). As well as universities, this participant references Local Enterprise Partnerships (LEPs), 'non-statutory bodies responsible for local economic development in England' (Shearer, 2021) and states: 'LEPs [...] provide capacity. [They] add value rather than replicate the work of local authorities or try and barge into the same space, which I've seen elsewhere in the country' (FG2P1). This participant elaborates on relationships with LEPs to raise wider issues of resourcing and experiences when it comes specific data practices of storing and analysing data:

In terms of holding that data and the analysis, I would just point to quite a strong constraint that certainly our local authority would have. And at the last one I worked so I imagine others, is the capacity. That in-house knowledge and other in-house set of skills to create and analyze smart data and smart metrics isn't there. And certainly in the [region], the combined authority, the LEPs have played a huge role in that and have done what, in my opinion, LEPs and the like should do, which is provide that capacity. (FG2P1)

Whilst FG2P1 draws out the nuances of how local authority relationships with LEPs differ across the country, these perspectives all contribute to recognising a multiplicity of partnerships based around distributed capacity and expertise. A similar point is made by a councillor in a different focus group (FG4P3):

The time that that team has to focus on this is always going to be limited. Building it within collective partnership capacity is going to be really important. We'll be able to establish collectively those frameworks and then have that resource in place to be able to translate that in the way

that we're anticipating. Building that resource – an enabling and facilitating role so stepping into that function on behalf of the wider sector.

These comments echo and bring together much of the above discussion in terms of the role of local authorities and the capacity that partnerships can bring.

The second finding under this theme considers sharing as a specific data practice that could be enabled through partnerships. The following comments from a data officer sets up the scenario concisely:

Data ... it's my biggest area of frustration. There's lots of data that exist; it is actually getting hold of the data to allow you to tell the story. So, I write a lot of reports to our councillors and my portfolio holder, but getting the data that we need to be able to continue to tell the story about the impacts of culture is a real challenge and something that we're working on right now. (FG3P1)

These comments further contribute to the analysis of how data are used to explore the impact of culture and how data are narrated within an approach that emphasises story. In terms of access and sharing, these comments from data officer FG3P1 resonated across the focus groups:

Data is sometimes shared with other organisations or departments, but it does not find its way back to the relevant departments. (FG1P2)

For me, it's about how do we marry that up and how do we have that conversation in the space and make best use of the resources available? Stop the duplication [of data]. How do we best combine all that to make sure we can have a proper push; really get behind the people that need it?. (FG4P1)

These comments on data access and sharing come from data officers (FG1P2; FG3P1; FG4P1), suggesting data officers are best positioned to understand the specific challenges and opportunities around internal and external partnerships for data generation and sharing. Together, these comments give insights into how local authorities are wrestling with challenges and complexities of data generation and sharing. The following also shows how a data officer is positioned to explore possibilities and make suggestions:

[...] if there was a data sharing agreement between each local authority in the Arts Council, whereby they shared the raw data with each local authority as relevant, that would actually enable us to know more about who's engaging with culture, who's being funded, what are they being funded to do and allow us to build on that in a smarter way locally. So at the minute, we're operating

blind because of lack of data sharing agreements where they could exist. (FG3P1)

The clear suggestion here is to implement data sharing agreements between local authorities and Arts Council England as a body that generates and analyses data as part of its remit and activities. Whilst this participant (or others) did not go into the feasibility of such an arrangement, it does affirm the challenge around relationships between distributed and disparate data sources.

Discussion: Context, visibility and data literacies

The findings examined the research project findings through three themes identified during the analysis of the focus group data: capacity, decision-making and partnerships. The following reengages with prompts from CDS and the data feminism principles of contexts and visibility to examine the significance and potential of these three themes. Emerging through the discussion are questions and suggestions related to data literacy, which are formulated into suggestions and interventions.

Context and visibility for local government data capacity, decision-making and partnerships

An overall finding is that local authorities prioritise the use of data for decision-making and are concerned with the practicalities for enabling this. Findings on decision-making explore the status and weight of data in local authority decision-making and how data can be mobilised for advocacy and evidential purposes. Corresponding with the priority for making data useful, the themes of capacity and partnerships reveal the focus on solutions to problems. For example, how increased resources and capacity would enable data collection and analysis and how partnerships enable data sharing. The earlier comments from FG4P articulate the emphasis on practical solutions and impacts: 'if I were to put a stake in the ground, we have some really good data around the sector. The next thing is, what do we do with it and how do we make that impactful?' The challenge posed here aligns with MyCake's (2021: 21) recognition of problems of fragmentation ('there is no single source of data for the cultural sector') and harmonisation ('data definitions are not harmonised across these various sources, making difficult comparison and aggregation'). It also aligns with the emphasis on solutions and MyCake (2021) make suggestions for addressing these challenges, including harmonising definitions, checking data quality, standardising data collection and linking different datasets.

Before pressing on with these practical solutions of aggregating and joining data, CDS however poses a more

fundamental challenge around data generation and contexts. As Kitchin (2014b: 9) argues, ‘data are reflective of the technique used to generate them and hold certain characteristics (relating to sampling and ontological frames, data cleanliness, completeness, consistency, veracity and fidelity)’. Whilst practical issues of resources, capacity and partnerships are explored, there is a related and underlying challenge and task in questioning where data comes from. Steps towards standardisation and linking must be pursued alongside concerted efforts to ‘connect data back to the social and political reality from which they were produced’ (D’Ignazio and Bhargava, 2020: 209). Similarly, speculations on how a data observatory could bring together cultural economy data (Walmsley et al., 2022) should track back to origins and production of that data. In addressing the themes of resources, capacity and partnership, the data feminism principle of context brings to the fore the need for ‘understanding the provenance and environment from which the data was collected’ and ‘analyzing social power in relation to the data setting’ (D’Ignazio and Klein, 2020: 172). In recognising local authorities as emerging and significant generators of cultural economy data, this is an opportunity to pose questions and interventions on future data practices and data production. To return to the comments from FG4P, any steps towards being impactful with data requires a step back and a focus on the contexts and visibility associated with the ‘really good data around the sector’.

In investigating the significance of data contexts for decision-making, Rex’s (2020) research on museums and local government makes a vital intervention around data and intuition by questioning certainty in data and using data as the basis for decision-making. Rex (2020) examines how data gaps and how dealing with them, leads to intuitive decision-making. For Rex (2020: 197), ‘in a context where evidence is unavailable (or undesirable) and local authorities lack the resources to obtain it, decisions are made based on ‘common-sense’ notions of what ‘makes sense’ or ‘feels right’. Writing in relation to arts and cultural sector organisations, Moore (2016: 107) similarly suggests that ‘where decision-making is not grounded in available ‘thick’ data, there is a temptation for arts organisations to explain the strategies and decisions made in terms of a mixture of intuition and experience’ (see also Höchtl et al., 2016 on public policy). This concern or tension manifests in this project around the sustained presence and capacity of data officers and the associated support they receive. The comments from FG1 participants on the lack of dedicated posts and posts being fixed-term illustrate the challenge lies not just with data gaps (Rex, 2020) and the unavailability of data (Moore, 2016), but also with the expertise to undertake analysis.

To a point, this is saying that there needs to be support and resources for permanent, dedicated data insights officers. This suggestion resonates with Parkinson et al.

(2020) and with Walmsley et al. (2022) who note challenges for cultural organisations on developing and retaining data scientists. Moore’s (2016) comments on data gatekeepers are pertinent for considering this suggestion more fully. Moore (2016: 108) offers a cautionary note on data that is accessible only to a ‘small group of specialist data gurus’ and goes on to suggest that if this person becomes the “go-to” for any data needs or questions, that individual becomes the gatekeeper for the narratives which the institution can tell’ (109). Moore (2016: 109) goes on to suggest that one consequence ‘is the possibility of a small number of people, or indeed one person taking covert power through control of both the data and the data story’. The data feminism principle of visibility also prompts investigation of the ‘data story’ and problematises transparency in decision-making. As D’Ignazio and Klein (2020: 189) state, ‘when designing data products from a feminist perspective, we must similarly aspire to show the work involved in the entire lifecycle of the project’. More permanent data officers involved in data generation and analysis might mitigate the issues of capacity explored in the findings and critically evaluated above with reference to Rex (2020), Moore (2016) and D’Ignazio and Klein (2020).

However, there is a larger issue of how those in this role are attuned to questions of data characteristics (Kitchin, 2014b) and provenance and social power (D’Ignazio and Klein, 2020). By investigating practical points of what, who, why and how through perspectives from data feminism, this article proposes that more substantial interventions and recommendations can be made. The specific challenges relating to decision-making, intuition and capacity and expertise and gatekeeping and the more encompassing concerns around data characteristics and social power are not unique to the local government cultural economy focus of this research. As such, the following considers how these local government specific issues of training and capacity can be pursued through wider interventions and tactics suggested by data literacy.

Data literacies for local government data capacity, decision-making and partnerships

The following engages with D’Ignazio’s (2017) contributions on data literacy to explore potential interventions and recommendations to the issues explored above relating to ‘decision-making, intuition and capacity’, and ‘expertise and gatekeeping’ and around data characteristics and social power. As argued above, futures for local government data practices should not be confined to solutions around harmonising or standardising. Bringing the data feminism principles of context and visibility to the analysis of capacity, resources and partnerships revealed that the challenge partly relates to sustainability and permanence of data

insights officers and partly relates to the approaches to questioning and working with data that are being employed. Reutter (2022: 918) suggests that:

data-driven public administration still remains a future vision rather than being realized in stable data assemblages; this might provide us, as citizens, users, or researchers, with opportunities to alter these imaginaries prior to or even during their translation into new and effective data assemblages.

In this respect, the following approaches from data literacy are suggested as directions and possibilities for the future.

Data literacy is the ‘ability to read, work with, analyse and argue with data as part of a broader process of inquiry into the world’ (D’Ignazio, 2017: 7). This data literacy process of inquiry into the world and making it a fairer place has common ground with the participants in this research, for instance, when they align data to matters of cultural value and use data within the context of a cultural strategy to promote various outcomes (e.g., participation and engagement, health and well-being). The concern for a fairer world raised by participants in this research also resonates with the wider cultural economy data landscape. For example, ACE are committed to Public Data Principles, to Open Data Strategy and to compliance with the Office of National Statistics Code of Practice (ACE, n.d.). As an observation on cultural economy data practices more generally, the concerns of data literacy resonate with the priorities and practices of ACE and some local authorities in England. For this discussion of local government cultural economy data practices and the possible approaches of data officers, the place for data literacy is for questioning data characteristics (Kitchin, 2014b) and provenance and social power (D’Ignazio and Klein, 2020).

Moving to the first part of D’Ignazio’s (2017: 7) definition on the ‘ability to read, work with, analyse and argue with data’, participants in this project have various degrees of familiarity and confidence with data practices. Indeed, several participants noted how this project was a beneficial experience for exploring and developing practices. However, the point is not that data officers are lacking in expertise, but rather to propose a different way to explore the multiplicities of ‘speaking data’ (Bhargava, 2014 cited in D’Ignazio, 2017: 7). D’Ignazio (2017: 7) draws out how ‘data literacy has been relegated to a set of technical skills, such as reading charts and making graphs, rather than connecting those skills to broader concepts of citizenship and empowerment’. How local government data officers understand and engage with issues of data characteristics and provenance and social power can be approached as an issue of ‘actionable critique’ that asks how ‘existing constraints can and should be altered and by who’ and, furthermore, ‘who is able to mediate them and who is not’ (Reutter, 2022: 918). More

specifically, D’Ignazio’s (2017) creative data literacy empowerment tactic of writing data biographies adds depth and detail to this discussion of what can be brought to local government cultural economy data practices.

D’Ignazio (2017: 10) explains that data biographies are ‘stories of how the data set came to be in the world’:

Instead of following a typical data analysis process where you acquire a data set and work forward to see what meaning there might be in the data, creating a data biography requires learners to go backwards in time before engaging in analysis and describe how a data set came to be in the world.

The point ending this quote on how a data set came to be in the world explicitly connects with the challenges and concerns of context and visibility raised above. D’Ignazio (2017: 10) offers questions which can help guide and structure the data biography writing: ‘Who collected the data? How did they collect it? For what purpose? How is it used? By whom? What are its impacts? On whom? What are the known limitations?’. The findings from focus groups show that making data useful and deploying data for the purposes of establishing cultural value and strategic decision-making are prominent priorities. However, the focus group participants are relatively quiet on data characteristics (Kitchin, 2014b), realities of data production (D’Ignazio and Bhargava, 2020) and stories of how data came to be in the world (D’Ignazio, 2017). D’Ignazio’s questions provide the ways to practically investigate data characteristics and provenance and unpick issue of gatekeeping and intuition in decision-making.

Returning to Belfiore’s (2016) reflections on research as formulating problems and challenging existing notions, this discussion shows that futures for local government cultural economy data practices cannot reside just with solutions for making data more usable and more connected. Addressing gatekeeping and intuition in decision-making requires returning to how data are produced – data characteristics and social power. Data literacy, when going beyond limited notions of technical skills, can enable and frame this critical inquiry. Local government is a significant generator and user of cultural economy data. Renewing and revising these data practices is a necessary and powerful step for being able to use data in the impactful ways that the local government and data officer focus group participants envision.

Conclusions

This article makes two contributions relating to local government cultural economy data practices in England (UK). Firstly, the empirical insights explore the resource and capacity challenges for creating and maintaining data practices, the importance of data in decision-making and

how partnerships can help local authorities with data sharing, with learning and in positioning as enablers of data generation. The extent to which these findings resonate in other public administration settings and beyond cultural economy data (e.g., Ku and Gil-Garcia, 2018) is something to pursue in further comparative research. Secondly, critical data studies and data feminism principles of context and visibility are used to identify and examine issues of data characteristics, gatekeeping and social power. In bringing together these empirical insights and critical prompts and interventions, three main connections and positions follow.

Firstly, addressing capacity means not just more data officers, but also considering the forms of data literacy that go beyond technical skills and are alert to the characteristics that data hold (Kitchin, 2014b) and questions of citizenship and empowerment (D'Ignazio, 2017). Secondly, using data for decision-making is not just about looking ahead to the future because this can problematically position data in terms of established narratives and intuition (Rex, 2020). Rather, relationships around data and decision-making require data biographies to understand and to 'connect data back to the social and political reality from which they were produced' (D'Ignazio and Bhargava, 2020: 209). Thirdly, developing partnerships requires a cautionary pause on the resourcing and practical advantages and gains. Attention must turn to the dynamics of social power and visibility (D'Ignazio and Klein, 2020) and gatekeeping (Moore, 2016) which might see certain data practices being repeated and reinforced.

As a possible intervention and suggestion, these three discussion points were further considered through data literacy approaches and the importance of writing data biographies. With this approach, questions of what, who and how can be critically examined in terms of data characteristics (Kitchin, 2014b) and provenance and social power (D'Ignazio and Klein, 2020) with the potential to revise and adapt local government cultural economy data practices at this significant period of reflection and expansion. However, in making this suggestion, the findings on capacity become apparent again.

A circular challenge emerges in which the potential interventions and suggestions from data literacy are rooted in the very issues of capacity and decision-making. Addressing local government cultural economy data practices challenges around capacity and decision-making requires, again following D'Ignazio and Bhargava (2020: 209), connecting 'data back to the social and political reality from which they were produced'. The next step for doing this is to understand how data practices and futures are informed by the realities of local government and cultural economy decision-making practices (Rex, 2020), staffing and expertise (Walmsley et al., 2022), organisational structures (Moore, 2016) and funding (Ashton, 2021, 2022).

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Data availability statement

Data available on request due to privacy/ethical restrictions. The data that support the findings of this study are available on request from the corresponding author, DA. The data are not publicly available due to ethical approval restrictions, i.e., their containing information that could compromise the privacy of research participants.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.



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