

Abstract submitted

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Rich and personal agendas: organizational learning from co-creation of an institutional personal learning environment

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Abstract

Universities are increasingly seeking to establish individual identities which set them apart from fellow institutions promoting their values educational strengths and standing. In recent years putting students at the centre of learning has become an increasingly prominent theme. Furthermore an increasing role is being played by technology as an integral part of the infrastructure to support learning, contributing to the personal skillset acquired by graduates during their academic career.

It is understandable therefore that not only would educationalists begin to move the learning technologies debate forward from eLearning to Technology Enhanced Learning but to also shift the focus from the role of virtual learning environments to that of personal learning environments. Such a debate reflects and values a perspective which considers enhancing the educational experience by looking at 'what the student does' rather than focusing of 'what the student is' or 'what the teacher does'.

This paper presents and analyses the way in which one institution has set about creating and supporting an infrastructure for an institutional personal learning environments and identifies some of the organizational learning which has arisen from this process.

1 Introduction

Students arrive at universities with a mix of sophisticated and naïve approaches to the use of technology in everyday life. Their understanding of technology may be more advanced than their teachers', and their expectations accordingly high. How can such prior learning be shaped and harnessed for university.

The development of personal learning environments (PLEs) and the surrounding debate has developed in the past ten years moving from technical specification to established systems and theories (Buchem, Atwell et al. 2011). At the same time the web has grown from a university project a fundamental tool of modern society. Early systems supported were little more than online publication and documents sharing. Now the web is a tool for social infrastructure, something we read and write, which we co-create and which co-evolves. The set of advances in the technical underpinnings have been described as web2.0 (O'Reilly 2007) but it was preceded by the growth of the social web (Shirky 2003) which is often identified as the roots of PLEs. Key to understanding of what we mean by PLEs is the understanding that learners themselves craft their own environments from a range of available online tools, which are of themselves mark a radical departure from a Fordian and centralised educational system, supported and to some extent reinforced by managed and virtual learning environments.

The emergence and popularity of virtual and managed learning environments and the apparently challenging emergence and popularity of PLEs reflect views on the social shaping of technology, see for example the 1996 research review by William and Edge's and Mackenzie and Wajcman's subsequent collection of essays (Williams and Edge 1996; MacKenzie and Wajcman 1999). Following these arguments, technologies we use to enable and support learning are functions of the social processes which surround the devices and systems operating in any particular social, cultural and historical context. Thus a

university's PLE infrastructure becomes an institutional PLE (iPLE).

This paper establishes the background which furnished the ambitions to create a Southampton Learning Environment as an iPLE. It takes and organisational overview which examines each of the components of the environment and analyses the developments which have taken place thus far.

2. A Case of an institutional Personal Learning Environment

A number of institutions are working to provide their students with Personal Learning Environments combining educational, technological, organisational and social motivations (Santos and Pedro 2009; Casquero, Portillo et al. 2010).

The University of Southampton has designed and is implementing a rich, holistic learning environment different to the Virtual Learning Environments of the 1990s. The design has been one of co-creation and co-evolution, merging inputs from academics, support services and technical specialists (White, Davis et al. 2010; Millard, Davis et al. 2011; White and Davis 2011a; White and Davis 2011b). Conceptually rich, this approach and the resultant environment is described as "more than a system, it's a mind-set".

In the design we envisaged a single front-end to the University of Southampton environment to access everything the university would provide for student needs in living and learning; we intend to support them throughout the journey – from pre-enrolment to alumni. We also wanted to provide the infrastructure that academics, support staff and administrators would need to support teaching, research and administration. It was crucial that the system had appropriate and secure interfaces to all administrative systems.

The educational approaches are strongly influenced by ideas of situated learning (Lave and Wenger 1991), and participation in communities of practice (Wenger 1998). The administration and accreditation of learning is important too. It is in everyone's interest that the systems work well and smoothly and are able to interoperate. Most importantly these services need to be provided in an affordable and maintainable manner.

Southampton has adopted an open data policy (Lewis 2011). Important and non-confidential university data (Classroom information, timetable, room bookings, café locations and hours, bus services) is openly published. We are also working on making confidential information (marks, fees-status, personal timetable) securely accessible to authorised users, in each case so that it is published¹ and available for computer and mobile applications.

Educationally the environment is designed to guide learners towards acquiring the set of personal digital literacies, demonstrated by 'super-users' (Fournier and Kop 2010), that are most relevant to their personal, educational and career choices.

The Southampton Learning Environment incorporates a technological framework which works with open data and integrates social software. For learners it also supports the development of digital literacies, effectively enabling a digital 'cognitive apprenticeship'. It will evolve and develop, reflecting emerging technologies throughout its lifetime.

These different objectives represent the interests and expertise of different internal stakeholders participating in the co-design and co-evolution of the system; academic services; academic departments; specialist educational and computing academics; core IT services; academic managers and students. We have found the time overhead of this collaborative process is repaid many times by shared ownership and on-going commitment to the system's success.

3. Conclusions

There are many different ways in which one can remove the barriers to learning, some of which are not necessarily directly 'educational' or 'instructional'. We believe that the power and value of the iPLE resides in the affordances of the technology to enable learners to customise and personalise technologies in an educationally constructive way (White and Davis 2011a) effectively enabling a 'digital cognitive apprenticeship'. Learners do not spend a lifetime using our environment, but we aspire to offer

¹ <http://data.soton.ac.uk> 3 <http://www.edshare.soton.ac.uk/>

educational opportunities which result in a transformative education which will sustain them through their future learning in whatever form it takes emerging as confident and competent participants in a digital future.

We believe these qualities will be recognised. The power and inevitability of this social shaping makes the case for iPLEs particularly strong. Thus we predict that the iPLE will become a reality across a wide range of Higher Education Institutions in coming years.

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Biography

Su White is an associate professor in the Web and Internet Science Group within Electronics and Computer Science (ECS) at the University of Southampton. She is also part of the team developing the use and functionality of the Southampton Learning Environment and Southampton's EdShare educational repository.

Su began researching institutional change and innovation in the early 1990s. She has published extensively addressing institutional change, the educational use of technology, and educational and curriculum innovations.

Su has considerable experience of technology enhanced learning (TEL) and has led and made significant contributions to educational development, evaluation and dissemination activities to a large number of funded TEL projects. Latterly her focus in that area turned to the evolution of personal learning environments. Her recent research addresses emerging web science agendas and including web science curriculum, semantic technologies, open data and repositories.

Su White has over 80 publications; details can be found at <http://www.ecs.soton.ac.uk/people/saw/>