

Facets of technology assisted learning

Dr Brett Bligh and Ian Jones report from a series of debates exploring the future of technology assisted learning.



While the importance of technology assisted learning is increasingly acknowledged and accepted by policymakers, researchers and teachers, debates continue as to the forms this should take and the future trends, modes and strategies for learning which will need to be adopted to enable successful practice.

Against this backdrop, the CAPITAL project (Curriculum And Pedagogy In Technology Assisted Learning), run jointly between the Learning Sciences Research Institute, the Teaching and Leadership Research Centre and Sero Consulting in association with Becta, decided to host a series of *Sandpit* events which would bring together theorists and practitioners to examine how, in future, reality could catch up with hyperbole. The events were conceived as one day events in which participants could experiment and brainstorm at the interface of learning design and technology in a

structured way, with the debate captured to assist the project in informing the next stages of Becta's national Harnessing Technology strategy.

The Sandpit events are a day long and comprise two main activities. In the morning, an Oases event acts as a hybrid trade show and academic poster presentation. Participants are divided into groups and given the opportunity to move around islands of activity, where they are exposed to new products and research. A discussion session allows the morning's issues to be debated, contextualised, and used to inform the subsequent activities.

After lunch, participants are divided into larger teams, or *Garrisons*, and asked to answer specific research questions, framed to elicit responses which can move forward current practice within a 5-year timeframe. Such a question might be: "What will be the killer Web 2.0 application enabling innovative practice in 5 years?" A final plenary

session allows delegates to compare designs and highlight the differences in thinking which have lead, inevitably, to widely divergent answers to the questions posed.

Web 2.0 for learning

The first Sandpit event, held in June 2008, focussed on the topic of Web 2.0 technologies and their potential for learning. Promising new ways of collaboration, rich communities of interaction, peer review, and the increased involvement of learners as co-developers of the educational process, Web2.0 is widely promoted by futurists and adherents of social constructivism. Despite this, recently published research found "little evidence that uptake is happening to any significant degree", especially in formal learning scenarios.

The morning Oases saw delegates presented with new research from Becta and exposed to applications including virtual worlds, social networking applications and

collaborative video-based systems. Various tensions were seen to arise, particularly around the issues of structure and purpose.

Broadly, participants felt that the tendency in Web2.0 applications to allow free-form collaboration between peers might restrict opportunities for formal learning design in situations where scaffolding of learning is essential. Conversely, other applications were seen to be well pedagogically directed yet potentially teacher-centred and strongly authoritative. Other applications drew attention to issues such as IPR, whose principles are often casually violated in a Web 2.0 world of content re-purposing, the encapsulation of learners, and the use of appropriate imagery in a strongly international educational system.

Proposed designs included a tool to make use of collective intelligence to support peer assessment; a 'digital identity' to support learners across devices and platforms in a way

that some participants compared to the *demons* in Phillip Pullman novels; and an academic social search engine combining collaboration, repositories and search technologies to draw together colleagues around resources.

Personalised Learning Environments

The concept of the Personal Learning Environment (PLE), despite being in currency for some time, provokes intense debates even around the definition of the term. PLEs are often promoted as reactions to existing VLEs, which arguably restrict opportunities for collaboration, impose traditionalist assumptions about course structures, and view student activity in a top-down manner.

Opinions on the day were varied, but it is possible to broadly separate views of PLEs into two categories, espoused respectively by those who perceive the central problem of VLEs to be their institutional embedment per se, and those who view personalisation as a process of enabling customisation which can inform technical development.

Within the first category, PLEs are often defined in terms of an analogy with web mashups. The environments are constructed by learners, using tools regarded as “loosely coupled” since they can be interchanged by the individual. Here, the environment for learning is constructed largely outside of institutional influence; within the Sandpit, adherents to the mashup PLE view promoted the idea that PLEs should not be institutional in any way. PLEs are here seen simply as a tool to enable learners to decide on their own knowledge pathways within a social context.

The integrated PLE approach features more closely coupled

tools, which are provided to learners through a system with a single sign on. Often, the tools, such as blogs, wikis and messaging, are re-implementations of existing ideas and functionality from popular sites. This solution is easier to manage and culturally more comfortable, since it is more directly an iteration of existing VLE solutions. However, such an approach necessarily constrains students to constructing their environments by selecting elements from a set of acceptable choices. In this way, such approaches can be thought of as *personalised* learning environments, in the sense that they would allow customisation of VLE interfaces to suit the preferences of students, in an incremental if important improvement of VLEs themselves. Demonstrations of upcoming WebCT features were particularly interesting, given our own University’s investment in this system.

Future

While the pertinent issues surrounding technology assisted learning are both complex and varied, the Sandpit events have successfully brought together policymakers from agencies such as Becta and JISC, academic researchers, e-learning representatives from HE institutions, schools and FE colleges, prominent educational bloggers and technical developers, all striving to identify the inhibitors to wide adoption of innovative practices. Two upcoming Sandpit events, to be held in March, will focus on issues surrounding electronic assessment and technology-supported learning spaces.

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Nottingham’s Web Campus in Second Life

In September 2008 The University of Nottingham established a web based campus in Second Life, providing a single location for anyone studying, teaching or researching at Nottingham to meet, wherever they are based. Second Life, on its website, is described as “a 3D virtual world created by its residents. Since opening to the public in 2003, it has grown explosively and today is inhabited by millions of residents from around the globe.” As such, it offers an immersive, user-centred virtual world with almost limitless opportunities for exploring innovative research and teaching.

Second Life is a flexible and powerful online environment which supports communication between its users through both text and voice, enabling staff and students based anywhere in the world to meet up, discuss and interact within the 3D environment. In fact, at a recent e-learning seminar (Jan 2009) organised by the IS Learning Team, a colleague based in the Lebanon presented his approach to teaching in Second Life to an audience in the UK from entirely within Nottingham’s Web Campus in Second Life.

Interest in Second Life continues to grow around the world, peaking with nearly 400 million hours logged online by its residents in 2008, up 67% over the previous year...

...according to Linden Labs (the company behind Second Life). The power of Second Life is the freedom to be and do anything, offering unique opportunities to experience learning and research focussed environments outside the constraints of the real world. From participating in a group discussion on one of Jupiter’s moons, experiencing firsthand the negative impact of schizophrenia or exploring a 3D representation of Dante’s inferno, anything is possible.

To support the development of Nottingham’s Web Campus, a Second Life steering group has been established. Meeting on a half yearly basis with members drawn from Schools, International Office, Marketing, IS, eLeK committee and the Student Union, the group provides guidance and advice on future development activities. It is still early days, but interest in Nottingham’s Web Campus to date has been very positive and the Web Campus has already been used to support teaching and research by the Business School, School of Geography (JISC funded DELVE project) and the LSRI, with further projects derived from the recent e-learning support call.