

Aligning a futures oriented higher education context with an institutional learning and teaching agenda

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Abstract: *This paper demonstrates a practical view of expected benefits and challenges when incorporating Web 2.0 technologies in a futures oriented higher education context. After first exploring which factors influence a shift in thinking about learning and teaching in a futures context this paper will then address the important role of an integrated Virtual Learning Environment (VLE) and the pedagogical applications of Web 2.0 technologies. It subsequently uses a series of case studies from the University of Southern Queensland, a large distance education provider in Australia, to support these propositions. Overall, this paper suggests that the goals and ideals of Web 2.0 and a futures approach to pedagogy can be achieved, or at least stimulated and/or mediated, through an institutions' virtual environment/s, as long as these environments are aligned with such ideals.*

Introduction

From a learning and teaching (L&T) perspective, Web 2.0 technologies, such as social networking sites, blogs, wikis, video, audio and image sharing, offer a huge variety of opportunities for knowledge sharing, interoperability and collaboration that are particularly relevant for emerging cohorts of students. However, the challenge for universities is to align what students are currently doing with how they are being taught, without blurring the boundaries between 'private' and 'educational' spaces, to the point where they disengage (West, Lewis & Currie, 2009). Aligning L&T to suit a Web 2.0 context requires a conceptual shift, from thinking about the Web as a method of communication, to one of education, and thus of knowledge creation and dissemination. While many current virtual learning environments (VLEs) and learning management systems (LMSs) could be largely seen as text-based and a 'sealed box' in which the learning activities are based (Figure 1), more recently LMSs have been developed that are potentially far better equipped to leverage off a diverse array of options now available on the internet. The advent of Moodle 2, for example, is a VLE/LMS that appears to be well suited to address L&T needs in this context. The potential of tools such as this, essentially based on an open source philosophy of the co-construction of knowledge, can allow educators to think outside the 'sealed box' and to utilize the Web itself as a method of education. This open philosophy, by its very nature, moves the educational provider away from being a 'manager' of learning to one of a 'facilitator' of learning. Or as Bradwell (2009) states, 'The university is becoming defined by its function – provider and facilitator of learning – not its form' (p.8). Although this socio-constructivist approach is far from being a new concept, how it is being applied using a new suite of technologies and open-source schemers is still in its infancy, with very little empirical evidence to-date emerging to validate the enthusiasm by which it is being adopted. That is not to suggest this adoption is flawed, rather there are a number of things that need to be considered at an institutional level before a wholesale embrace of this open approach is formalized.

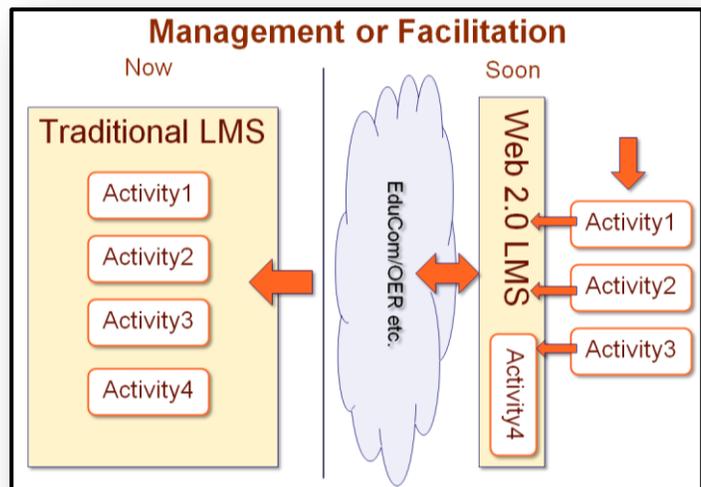


Figure 1. Traditional concept of and LMS (left) versus the next generation LMS (right)

Web 2.0 and the generations

Collectively, Web 2.0 technologies constitute a major shift in the way the Web is used (boyd, 2008) and ‘could’ be used. This is not to say that the technology inevitably drives these changes, rather, that educators could potentially seize on ways in which these technologies are already being used and guide this usage into directions more suited to today’s learners. In recent years, much has been written about ‘this generation’ (Figure 2), which is variously referred to as Generation Y, the Net Generation (Oblinger & Oblinger, 2005), Digital Natives (Prensky, 2001), and Generation V (Havenstein, 2007), and which is generally characterised by having grown up in a technology-saturated environment. Particular sets of characteristics are ascribed to such a generation (Oblinger & Oblinger, 2005), which in turn makes it tempting to call for a complete overhaul of the way we teach to suit those characteristics. It is not difficult to see parallels between these perceived ‘needs’ and what Web 2.0 environments appears to be able to offer.

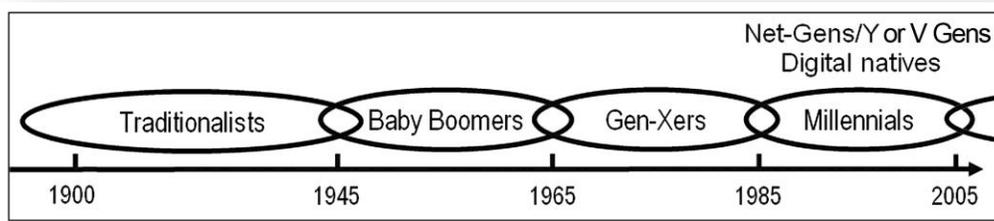


Figure 2. A simplified representation of different generational classifications

Recently however, more nuanced critiques, based on empirical research, are beginning to appear that throw calls for this complete overhaul into doubt (Kennedy et al., 2008), without denying the need to address changing student characteristics, particularly those of non-traditional learners. While such empirical studies confirm that Gen Y has grown up in an environment ‘saturated’ by technology, they also suggest that there is much variation with regards to types of use appropriate for education. A recent Australian study by Kennedy et al. (2008) shows that ‘many first year students are highly tech-savvy. However, when one moves beyond entrenched technologies and tools (e.g. computers, mobile phones, email), the patterns of access and use of a range of other technologies show considerable variation’ (p. 108). For example, while Kennedy et al. found a significant growth in students’ general use of instant messaging, blogs and podcasting, they also found that the majority of students rarely or never used these technologies for study, and importantly, ‘the transfer from a social or entertainment technology to a learning technology is neither automatic nor guaranteed’ (p. 119).

Clearly the onus is on universities to define a coherent strategy aligned to the already existing skills of the student body and to provide Web 2.0 styled tools for meaningful knowledge creation and dissemination (Alexander, 2008). Similarly, Unsworth (2008) argues that what universities should recognize in the emergence of Web 2.0 is ‘a shift in emphasis from the computer as platform, to the network as platform, from hardware to data, from the wisdom of the expert to the wisdom of crowds’ (p. 227). The challenge to come out of this for universities is twofold: on the one hand it requires universities to address the question of access, and on the other it calls for strategies to teach students to engage with these new insights in meaningful ways. The required changes relate to institution level changes, as well as to the ways individual teachers conceptualize their function, and ultimately the ways in which they approach knowledge creation and dissemination.

This more ‘open’ approach may be sustainable where it is employed occasionally and when the context is appropriate, but once it is adopted more widely serious planning across the program is advised. More importantly, if such an ‘open’ approach can be used in conjunction with, or mediated by, a VLE/LMS or a personal learning environment (PLE), it has the potential to provide a coordinated suite of information, allowing users to focus their energies on knowledge building, ‘rather than on splitting their attention, and hence increasing

cognitive load' (Shadbolt et al., 2004, p. 46). Dror (2008) states that by adopting this approach, 'one can considerably reduce cognitive load by tailoring the learning to the architecture of cognition' (p. 218).

The move towards PLEs has taken an interesting turn at USQ in recent times. The adoption of the open source Mahara software has opened up a range of new vistas for teaching staff. The Mahara software and the interoperability of this software with the Moodle LMS has allowed the university to provide both a space for students to create a meaningful profile for themselves, but also an environment where they can create multiple tailored views of themselves to suit different audiences (Figure 3). Students can create and upload documents, house a blog, syndicate in content from external spaces and make a variety of these available for different people to see, and in some cases interact with. These elements can then appear within one or multiple views. Staff undertaking professional development activities can also use the PLE to house and manage artifacts that they can then use towards promotion, while also linking to the university's ePrints repository that syndicates all their publications into this same environment. And all of this is only just scratching the surface of what can be potentially done with PLEs due to the affordances of Web 2.0 tools.

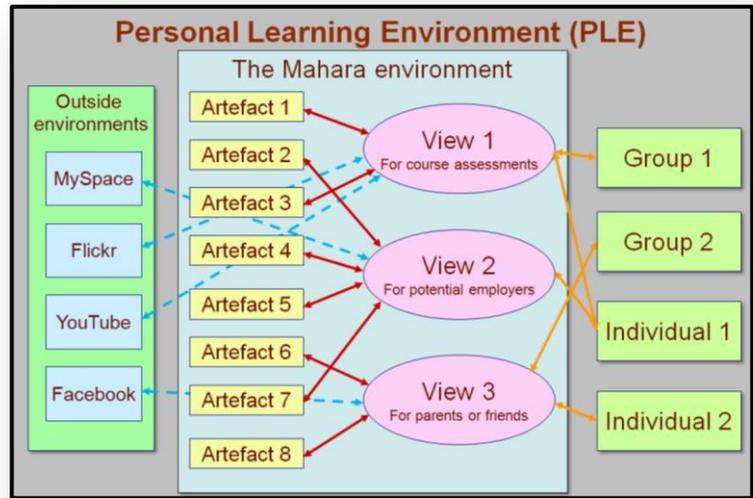


Figure 3. USQs PLE using Mahara

It should be noted that USQ has employed a range of tools in conjunction with its installations of Moodle and the Mahara ePortfolio software. This software has been employed at multiple levels: there is an instillation for the student VLE/LMS; there is a separate environment for staff that is also used as a playground for trialing new and emerging tools; there is a further instillation for community activities engaging institutions and identities outside of the university; and finally an OpenCourseWare instillation, housing courses offered through the International OpenCourseWare Consortium. For USQ the need for more meaningful interaction between staff and students and between students has spawned an emerging dependence on a range of Web 2.0 tools embedded within the VLE/LMS and PLE environments. Brief examples of these will be provided in the associated presentation.

Conclusion

The introduction of Web 2.0 technologies into the L&T environment at USQ is characterized by a staggered whole-of-institution approach. This approach is based on recognition that while the introduction of Web 2.0 technologies in a HE context has many potential benefits, such benefits are at the same time largely unproven. There are for example issues of privacy and ownership of data still to consider, as well as ethical issues related to inadequate evaluation of implementation. The staggered approach is thus designed to allow time to work through some of those issues, without having to put innovation on hold. While the uptake is initially driven by early adopters, the ultimate objective is for staff and students to engage with Web 2.0 environments and the advantages they afford. These advantages are two-fold: firstly, in a professional context most students will need to be at least comfortable in a Web 2.0 environment upon graduation, and have the ability to quickly adapt to changing circumstances in this environment. Secondly, moving academic staff towards this futures oriented approach is expected to instill a lifelong learning ethos, and thus the ability to consistently take advantage of the potential of these new technologies. The staggered and whole-of-institution approach is also designed to provide adequate support and professional development opportunities, thereby providing a safeguard

against ad hoc and inconsistent practices across faculties or even within different faculties. In this way, the approach is designed to provide a futures oriented perspective for both student and staff.

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