ABSTRACT

Blogs, wikis, podcasting, and a host of free, easy to use Web 2.0 social software provide opportunities for creating social constructivist learning environments focusing upon student-centred learning and end-user content creation and sharing. Building on this foundation, mobile Web 2.0 has emerged as a viable teaching and learning environment, particularly with the advent of the iPhone (nicknamed “the Jesus phone”) and iPod Touch. Today’s wifi enabled smartphones provide a ubiquitous connection to mobile Web 2.0 social software and the ability to view, create, edit, and upload user generated Web 2.0 content. This chapter explores the potential of wireless mobile devices and Web 2.0 (social software) to create social constructivist learning environments that bridge multiple learning contexts. The chapter provides an overview of current literature in the field, and discusses the pedagogical design of six example mobile Web 2.0 trials undertaken during 2007 and 2008 as part of research into the potential of mobile Web 2.0 to enhance tertiary education. The trials were based in three different courses and illustrate the application and integration of mobile Web 2.0 to bridge a range of learning contexts. The chapter argues that wireless mobile devices can be used to intentionally create disruptive learning environments that facilitate a social constructivist approach to teaching and learning.

INTRODUCTION

This chapter is based upon the experiences gathered from six mobile learning (mlearning) trials beginning in 2007 and continuing throughout 2008. After an introductory trial in 2007 (Cochrane, 2008c), five small (each involving between 6 and 10 students and their lecturers) mlearning projects were implemented and evaluated during 2008 (Cochrane, 2008a). Feedback from the 2008 mobile projects was very enthusiastic:

DOI: 10.4018/978-1-60566-882-6.ch007
It isn’t ‘easy’ working in this way but it is im-
mensely valuable and exciting. I think that it would be very hard go back to traditional teaching only methods now I have begun to use blogging and mobile blogging (Third year Bachelor Product Design lecturer).

I really, really enjoyed the process, it was great. The things I liked were being able to be completely mobile, and having access to the Internet – you know, if I was lost or if I needed to find someone, or I needed to ring a business. I could go on the Internet, Google their website, look up their opening hours, things like that... (Bachelor Product Design student)

Compilations of 2008 student and staff VOD-Casts (Online video recordings) are available on YouTube:

1. Bachelor Product Design Year 1: http://www.youtube.com/watch?v=8QUfw9_sFmo
2. Bachelor Product Design Year 2: http://www.youtube.com/watch?v=6jwAFXBZAz0
3. Bachelor Product Design Year 3 (and Lecturers): http://www.youtube.com/watch?v=8Eh5ktXMji8
4. Diploma Contemporary Music: http://nz.youtube.com/watch?v=0lt5XUfVQjQ
5. Diploma Landscape Architecture: http://nz.youtube.com/watch?v=e8IZSVtaMmM

The focus of using mobile web 2.0 technologies (described below) is to harness easy to use, mobile friendly tools that students can use to create their own content and learning contexts, guided by their lecturers and supported by their peers, beyond the limitations of institutional systems. Recent mlearning projects based at the University of Wollongong (Herrington et al., 2008) follow a similar pedagogical and staff professional development approach to that utilised in this research project, but do not explicitly link web 2.0 tools with mlearning as this project does.

Defining Mobile Learning

Definitions of mobile learning have focused initially upon the mobility of the devices and more recently the mobility of the learners. Sharples proposes a form of Laurillard’s conversational framework (Laurillard, 2001), excluding the teacher, to define mobile learning by its contextual and informal learning characteristics. “The processes of coming to know through conversations across multiple contexts amongst people and personal interactive technologies” (Sharples et al., 2006). However, a key element in the conversational framework is the dialogue between teacher & student. In contrast to Sharples et al (2006), Laurillard (2007) emphasizes the teacher’s input in mobile environments through good pedagogic design that facilitates continuity between the face to face and remote peer learning contexts. Her definition of mobile learning incorporates the critical pedagogical design input of the teacher: “Mlearning, being the digital support of adaptive, investigative, communicative, collaborative, and productive learning activities in remote locations, proposes a wide variety of environments in which the teacher can operate” (Laurillard, 2007).

Wali et al (2008) take ‘context crossing’ as the basis for their conceptualisation of mlearning. They use Activity Theory to define mlearning. The resultant definition is extremely broad: “learning that occurs as a result of pursuing learning activities that are directed towards achieving some objective in multiple contexts (physical and social)” (Wali et al., 2008) p45. Wali et al believe “definitions of mobile learning should cover conventional devices as well as any other technology” – they want to get away from a technology focus within the definition of mlearning, to a focus upon the ‘continuity of learning activities in different contexts’. However, non wireless devices cannot bridge communication across multiple contexts.

It is the potential for mobile learning to bridge pedagogically designed learning contexts, facilitate learner generated contexts, and content (both