Chapter 14
Exploring the Pedagogical Affordances of Mobile Web 2.0

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ABSTRACT
This chapter explores the potential of Mobile Web 2.0 to enhance tertiary education today, outlining both research-informed principles, as well as providing case study examples of Mobile Web 2.0 participants’ experiences of how the use of Mobile Web 2.0 within a pedagogical framework has transformed both students’ and lecturers’ conceptions of teaching and learning.

INTRODUCTION
This chapter is based upon the author’s research that covers three years of action research mLearning (mobile learning) projects encompassing five different courses, forming five case studies spanning from one to three years of implementation and refinement, and involved thirteen mLearning projects undertaken between 2007 and 2009 with a total of 280 participants (Cochrane & Bateman, 2010a). The learning contexts included: Bachelor of Product Design (2006 using Palm Lifedrive, 2008 using Nokia N80, N95, 2009 using Nokia XM5800, N95, N97), Diploma of Landscape Design (2006 using Palm TX, 2007 using Nokia N80, 2008 using Sonyericsson P1i, 2009 using Dell mini9 netbook), Diploma of Contemporary Music (2008, 2009 using iPod Touch, iPhone 3G), Bachelor of Architecture (2009 using Nokia XM5800 and Dell Mini9 netbook), and the Bachelor of Performing and Screen Arts (2009 using Dell Mini9 netbook and Nokia XM5800). The aim of the research was to investigate the potential of Mobile Web 2.0 tools (with a focus upon smartphones coupled with mobile formatted Web 2.0 social software) to facilitate social constructivist learning environments across multiple learning contexts (both formal and informal).

The research used a participatory action research methodology (Swantz, 2008) and based its pedagogical decisions upon the foundation

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The research captured the learning journeys of the researcher and participants as they moved from initial skepticism to personal appropriation of the new technologies, to the ontological shifts required for integrating the unique affordances of these Mobile Web 2.0 technologies into their pedagogical practice and courses, enabling collaborative learning environments that bridge multiple contexts.

The research led to the development of an intentional community of practice model (Langelier, 2005; Wenger, White, Smith, & Rowe, 2005) for lecturer professional development and scaffolding student learning, established a pedagogical design framework, identified critical success factors, and developed an implementation strategy for the integration of mLearning within tertiary education.

The research adds the insights of a longitudinal study to the relatively new body of knowledge around mLearning. What began as an investigation of the affordances of Web 2.0 in 2007 developed into a wide exploration of Mobile Web 2.0 within a variety of learning contexts. The success of these projects led to the implementation of integrating Mobile Web 2.0 technologies (based on an explicit social constructivist pedagogy) across the institution.

This chapter summarises the potential of Mobile Web 2.0 in tertiary education from the researcher’s perspective and experiences, overviewing a range of current freely available Web 2.0 services. Two case studies are used to illustrate the integration of Mobile Web 2.0.

**BACKGROUND**

This section briefly outlines some of the core concepts and the author’s position on mLearning and Mobile Web 2.0.

**Web 2.0**

While definitions of Web 2.0 are difficult to pin down, it is their similar characteristics that link these diverse web services. “Ultimately, the label “Web 2.0” is far less important than the concepts, projects, and practices included in its scope” (Alexander, 2006, p. 33). McLoughlin defines Web 2.0 as “a second generation, or more personalised, communicative form of the World Wide Web that emphasises active participation, connectivity, collaboration and sharing of knowledge and ideas among users” (McLoughlin & Lee, 2007, p. 665).

**Pedagogy 2.0**

Recent years have seen many attempts to reconceptualise pedagogical approaches within tertiary education (JISC, 2009b; Laurillard, 2001). These have been driven by the emergence of new learning theories based broadly upon constructivist and social constructivist foundations, and the development of new learner-centred technologies that facilitate these newer pedagogies (Alexander, et al., 2006; JISC, 2009a). For example, the appropriation of Web 2.0 tools within a social constructivist pedagogy facilitates what has been termed “Pedagogy 2.0” (McLoughlin & Lee, 2008a). McLoughlin advocates the exploration of the potential of the alignment of Web 2.0 tools and emerging learning paradigms based loosely upon social constructivism such as “navigationism”, and “connectivism”.

The affordances of these technologies, coupled with a paradigm of learning focused on knowledge creation and networking, offer the potential for transformational shifts in teaching and learning practices, whereby learners can access peers, experts, the wider community and digital media in ways that enable reflective, self-directed learning (McLoughlin & Lee, 2008b, p. 649).
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