Chapter 9
Conceptualising mLearning Literacy

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ABSTRACT

Research into the educational application of mobile technologies has increased dramatically in recent years. Much has been written about mobile learning and its various pedagogical practices and issues as well as the theoretical frameworks that have been developed to underpin the studies in the reports. However, little has been written about the literacy associated with learning with mobile devices and whether there is a place for its development in education. This conceptual paper seeks to explore mLearning literacy, the digital literacy associated with learning with mobile devices, and asks the question: What is mLearning literacy and what are its implications for educators? In the paper, the author will argue that fundamental to learning with mobile devices is the need to develop the associated digital literacy in students. The author proposes that being mLearning literate would empower students to learn more independently and more safely when using mobile devices and their applications.

INTRODUCTION

Research into the educational application of mobile technologies has picked up dramatically in the last few years. Ng & Nicholas (in press) reported on a sharp increase in research publications in this area of learning in the years 2004-2007, with 88% of the articles published in the 5 years from 2006-2010 (see Figure 1). They stated that these figures underestimate the amount of work in the field, since, for example, reports for numerous large funded projects in the late 1990s and early 2000s in the US, UK and Europe were not located in the databases used. Their literature search indicated substantial variation in the types of mobile technologies used and the contexts in which they were used.

The diversity in frameworks used in mobile learning studies include knowledge building (e.g. Chen & Huang, 2010), personal construct theory (e.g. Chu, Hwang, & Tsai, 2010), media richness (e.g. Shim, Shropshire, Park, Harris, & Campbell, 2007), mLearning (e.g. Evans, 2008; Franklin, Sexton, Lu & Ma, 2007), cognitive load (e.g. Hung, Lin & Hwang, 2010), informal learning (e.g. Clough, Jones, McAn-

Figure 1. Number of mobile learning papers from 2000-2010 (Ng & Nicholas, in press)
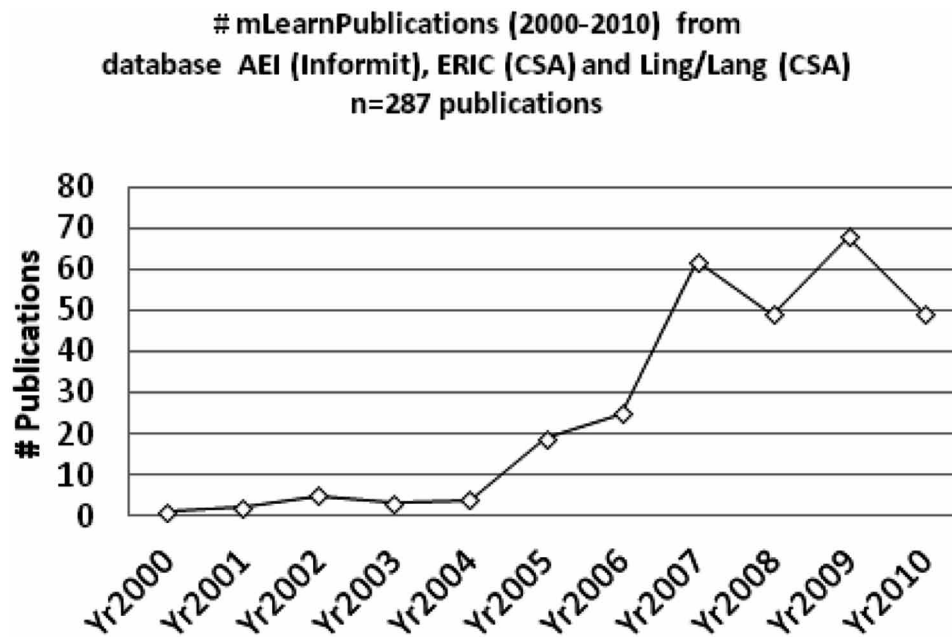
drew, & Scanlon, 2008), mobile computer supported collaborative learning (e.g. Huang, Yang, Huang, & Hsiao, 2010), experiential learning (e.g. Dyson, Litchfield, Lawrence, Raban, & Leijdekkers, 2009), lifelong learning (e.g. Dale & Pymm, 2009) and ubiquitous learning (e.g. Tsai, Tsai, & Hwang, 2010). Mobile learning theoretical frameworks are often adapted from general ICT-based or other learning theories and modified for mobile learning. The more popular theories that have been adapted for mobile learning are socio-constructivist learning theory (e.g. Cochrane &

Bateman, 2010; Motiwalla, 2007), activity theory (e.g. Liaw, Hatala & Huang, 2010) and situated and authentic learning theories (e.g. Gkatzidou & Pearson, 2009; Looi, Seow, Zhang, So, Chen, & Wong, 2010). Most of the frameworks also include a focus on personalised learning. Others relate to the social aspects of learning at the collaborative level (e.g. Sharples, Taylor, & Vavoula, 2007; Shih, Chuang, & Hwang, 2011). At the more technical levels researchers explored human-computer interactions (e.g. Sitthiworachart, 2007) and context-aware ubiquitous learning (e.g. El-Bishouty, Ogata, & Yano, 2011).

Apart from the rise in publication output, the increased interest in mobile learning can also be seen from the increased number of mobile learning conferences where five dedicated conferences that run regularly have been set up in recent years. These are the *Wireless, Mobile and Ubiquitous Technologies in Education Conference*, *IADIS International Conference on Mobile Learning*, International *Conference on Interactive Mobile and Computer Aided Learning*, *MLearn Conference* and *APAC Mobile Learning and Edutainment Conference*. In addition, specialised mobile learning and research centres such as the *London Mobile Learning Group* (http://www.londonmobilelearning.net) and Learning2Go (http://www. learning2go.org/) have increased the visibility of learning with mobile technologies. The number of journals dedicated to mobile learning has also increased. 2007 saw two new journals: the *International Journal of Mobile Learning and Organisation* and the *International Journal of Interactive Mobile Technologies*, and the *International Journal of Mobile and Blended Learning* was launched in 2009.

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