

Chapter 5

Fostering Collaborative Learning with Mobile Web 2.0 in Semi-Formal Settings

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ABSTRACT

Mobile Web 2.0 technologies such as: mobile apps, social networking sites and video sharing sites have become essential drivers for shaping daily activities and meeting learning needs in various settings. However, very few studies link mobile Web 2.0 to supporting collaborative learning in real-life problem solving activities in semi-formal contexts. A study of collaborative learning and mobile Web 2.0 usage practices in real-life problem solving activities was carried out with 18 participants recruited from a local faith based community club. Research data was gathered through observational studies, open-ended questionnaires, semi-structured interviews and by logging content captured on mobile devices. Data analysis examined learner demographics, social interactions and artefacts produced in activities. Results indicate that the choice and use of mobile Web 2.0 to support collaborative learning in semi-formal settings is based on the ways in which technological functions effectively support and enhance established social relations and practices.

INTRODUCTION

The wide spread use of mobile applications (mobile apps) and Web 2.0 technologies such as social networking sites, blogs, video sharing sites and instant messaging has transformed the way that learners interact and learn in various settings (Barwell, et al., 2011; Bohmer, et al., 2011; Gao, et al., 2012; Verkasalo, et al., 2010). Mobile apps are software applications designed to run on small portable devices with wireless connection to the internet (Bohmer, et al., 2011; Verkasalo, et al., 2010). Mobile apps are normally installed on mobile devices such as smart phones, *tablet computers* and other *portable devices* in order to provide easy access to internet services and applications that support communication, information retrieval and exchange (Bohmer et al., 2011). Mobile apps that are currently available on smart

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phones include: Facebook, Tumblr, Viber and Whatsapp. The term Web 2.0 was introduced by O'Reilly (2005) to refer to advanced internet based services and applications that enable users to communicate, create and share information in various formats including text, audio and video. Web 2.0 applications include social networking sites and video sharing sites such as Facebook, Myspace, Tumblr and YouTube (O'Reilly, 2005). Information is normally stored online but can be accessed on mobile devices and personal computers (PC). In this paper, the term 'mobile Web 2.0' is used to refer to the combined use of mobile apps and Web 2.0 technologies such as social networking sites to support personal and group interactions. A key element of mobile Web 2.0 is that it allows individuals and groups of people to create and share content, communicate and collaborate with each other using mobile devices and internet based applications and services (Bohmer, et al., 2011; Laru, et al., 2012; McLoughlin & Lee, 2010; Verkasalo, et al., 2010). Mobile Web 2.0 is increasingly being used to connect learners with each other, allowing them to socialise, create knowledge and share information anytime, anywhere in various formats including text, audio and video (Cochrane, 2014; Kang, et al., 2014; Ranieri et al., 2013). Social interactions that are supported by mobile Web 2.0 include micro-blogging and playing games on mobile devices, creating and sharing knowledge online using social networking sites (Gao, et al., 2012; Laru, et al., 2012). Knowledge creation activities include; capturing moving and static images, recording audio communications. Information sharing functions include; support for accessing, retrieving and exchanging content. In so doing, mobile Web 2.0 redefines the way learners relate to each other and transforms established practices by creating new modes of socialising and learning that blurs the boundaries between formal and informal learning, and work and play (El Helou, et al., 2010; Pettit & Kukulska-Hulme, 2011). In this respect, mobile Web 2.0 plays an important role in shaping and meeting learning needs in both formal and informal settings by empowering learners to individually and collectively develop content, evaluate and direct their learning needs (McLoughlin & Lee, 2010; Crook, 2008). This transforms the traditional role of a teacher as an expert responsible for imparting knowledge and directing learning such that they become mentors or collaborators in the learning process (Barwell, et al., 2011; Cochrane, 2014). Mobile Web 2.0 enables learners to become active producers and consumers of information with more freedom to choose and control their own learning (McLoughlin & Lee, 2010). Learners gain confidence and skills to become self-directed in their learning since mobile Web 2.0 facilitates the development of new modes of interactions around knowledge creation and sharing (McLoughlin & Lee, 2010; Scanlon, et al., 2014). In addition, mobile Web 2.0 enhances learning experiences by offering learners different forms of support to match their learning styles. Therefore, the integration of mobile Web 2.0 in semi-formal contexts of learning creates an environment suitable for promoting both personal and collaborative learning (McLoughlin & Lee, 2010).

Semi-Formal Learning and Mobile Web 2.0

Many practitioners argue that there is no clear definition of the terms 'formal learning' and 'informal learning' (Crook, 2008; Hodkinson, et al., 2003; Jones, et al., 2013). Formal learning is traditionally associated with structured learning that occurs, for example, in school settings and has clearly outlined objectives, a syllabus or ongoing curriculum; and, a method of assessment (Crook, 2008). Informal learning occurs outside a formal educational structure and is largely driven by personal interests or happens incidentally in the course of doing daily activities (Crook, 2008; Jones, et al., 2013). Participation in informal learning happens voluntary as opposed to formal school based learning where participation is mandatory. Jones et al., (2013) argue that "inquiries in informal contexts are likely to be personally

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