Student Experiences with Mobile Electronic Updates from a Virtual Learning Environment

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ABSTRACT

This paper describes the development of two mobile applications to disseminate course and module information to university students by sending notifications and electronic updates to their mobile devices. The two mobile applications are based on RSS and Twitter and provide notifications to users which are similar in format and transmission mode to these Web 2.0 entities. The aim of this study is to understand the potential benefits of using the mobile applications as assistive technologies to the existing virtual learning environment. The study uses the ARCS model of motivational design and instruction theory (attention, relevance, confidence, satisfaction) as a tool to enhance students’ experience and their subject engagement. User feedback revealed that although users were given flexibility with regards to temporal updates, they preferred temporal updates at specific times and not in real time. A lack of wireless access in some areas commonly used by students proved a further limitation.

Keywords: Attention Relevance Confidence and Satisfaction (ARCS) Model, Blended Learning, Education, Information Systems, Mobile Electronic Alerts, Student Engagement, Web 2.0

1. INTRODUCTION

With the delivery of learning objects being as imperative as the content itself, leveraging major developments in technology enhanced learning is important to everyone involved in the education process. The swift developments in information and communication technology, coupled with students’ encounters and subsequent expectations with online environ-

ments, create new possibilities for educational experiences. As information technology has undoubtedly formed unparalleled opportunities for social communication and peer-construction of knowledge, higher education institutions have aimed to align themselves with these technological advancements and adopted this ‘Webagogy’ (Pettenati et al., 2000). One major archetype of this is with universities’ virtual learning environments now becoming the natural medium for most ‘digital native’ students accessing academic support such as announcements or
course materials (Small & Vorgan, 2008). With Web 2.0 being as pervasive as it is to Generation Y, with instantaneous communication now an integrated expectation in their daily lives, it is only a matter of time before this level of interaction is expected in an educational context. Although virtual learning environments themselves are perceived as a modern example of the Web’s influence on educational activity, they have existed in other, more primitive forms since compulsory formal education began to be introduced in the U.S. and Europe. These range from archaic distance learning using primitive forms of the mail system, the introduction of Television and most recently the Internet. Therefore, education has always utilized current trends in technology to support learning. The current focus is on how institutions and teachers can facilitate engagement in the materials presented, including ‘navigational aids’ for students to further their understanding of a particular subject (Pachler et al., 2010). Currently, many universities have a comprehensive virtual learning environment which already utilizes a profusion of technologies to support the process of course management and effective delivery of learning materials. With Web 2.0 functionality now being an intrinsic and progressive element in most students’ learning environments many, including Sclater (2008), express the need to mobilize this sharable and interactive content. It is clear that the latest versions of learning environments often attempt to replicate aspects of other social media. However, it seems that both teachers and learners are supplementing their activities with tools that sit outside of these institutionally sanctioned environments. One clear example of this replication is MyPlace, shown in Figure 1. Such a tool acts as a private and social web space to record and share reflections on student learning, explore learning outcomes and aspirations.

In addition, such a platform encourages higher education students to think about their future careers, and supports their personal development. Even with a blogging feature directly available for the students, many still utilize social networks and blogging sites away from the university itself, such as Wordpress or Joomla. Social networking websites are

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Figure 1. MyPlace: Educational social software
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