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Influences on the adoption of mobile technology by students and teachers

A thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Information Systems at Massey University, Albany, New Zealand

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ABSTRACT

Technology offers new possibilities to provide effective teaching and learning. One of the most recent technologies that has ignited considerable interest by educators is mobile technology. Mobile technology has been quickly adopted in everyday life, and it is common for most people to have, and carry, a mobile device with them at all times. In addition these mobile devices are becoming more and more powerful and taking over tasks that would normally be done on traditional PCs or laptops (Dawabi, Wessner, & Neuhold, 2004). Researchers have started to explore the way mobile technology can be harnessed in the educational arena (see for example Attewell & Gustafsson, 2002; Cobcroft, Towers, Smith, & Bruns, 2006; Seppälä & Alamäki, 2003; Traxler, 2009; Zawacki-Richter, Brown, & Delport, 2009; Zeng & Luyegu, 2011). Despite the interest, little is known about the factors that will impact student and educator adoption of mobile learning. Current studies into mobile learning are mainly small scale trials and pilots with most focussing on student adoption. Factors that affect the mobile learning adoption by educators seem to have been largely ignored.

To address this gap in the literature, the present study has developed two models of student and educator adoption of mobile learning. The models posited that the perceived ease of use and usefulness of mobile technology would mediate the relationship between self-efficacy beliefs, motivation and level of self-direction of students and the intention of students and educators to adopt mobile learning.

A total of 446 students from three tertiary institutes and 196 educators from all New Zealand completed a survey that identified their learning and teaching-related beliefs and attitudes, their intentions to adopt mobile learning, and their perceptions of using mobile technology to support their learning and teaching.

The study found that educators and students are influenced by different factors to adopt mobile learning. Specifically, it found that the self-efficacy beliefs, motivation and self-directedness (students) had varying degrees of influence on ease of use and usefulness perceptions of mobile learning, and overall intention to adopt it. The study also found evidence to suggest that these factors may differ between students of different ages, genders and institute types they attend.
The study also provides recommendations to educators, researchers, learning designers and institutes who wish to implement mobile learning into their curriculum to accommodate and encourage adoption.
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