Chapter 22

Students' Acceptance of Mobile Learning:
An Empirical Study Based on Blackboard Mobile Learn

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ABSTRACT

With the rapid development of telecommunications, mobile learning is appearing as a promising learning approach for students to learn anytime anywhere. However, many key issues regarding the design and implementation of mobile learning are still unclear. This research investigates key factors leading to the acceptance of mobile learning based on students' use of Blackboard Mobile Learn. The research findings will help instructors to design courses for mobile users and system developers to design better mobile learning systems.

INTRODUCTION

With the development of mobile and smart technologies, mobile learning is rapidly appearing as a new education format in addition to traditional face-to-face and computer-based online learning. As a new education delivery approach, mobile learning can offer many unique benefits that other e-learning formats cannot (Alrasheedi & Capretz, 2015; West & Vosloo, 2013), such as personalized learning, anytime anywhere learning, situated learning, and new communities of learners (West & Vosloo, 2013). Some mobile learning benefits are revolutionary in improving teaching and learning effectiveness. In Taiwan, a mobile English learning system is used to recommend personalized reading materials to students based on their varying English levels and preferences (Hsu, Hwang, & Chang, 2013). Considering that smartphones and tablets are highly personalized devices, students' learning patterns can be analyzed to develop better personalized teaching strategies based on their activities during learning sessions (Fulantelli, Taibi, & Arrigo, 2015).

However, the development of mobile learning is only in its beginning stages (Liu et al., 2014). The course activities that students can accomplish with mobile devices are still very limited. Many students have not realized the advantages of mobile learning and are reluctant to access course materials from their mobile devices. Moreover, many instructors are not ready to prepare their course content for mobile learning. Therefore, in order to take advantage of this new education approach, we are eager to know the key factors regarding the acceptance of mobile learning. By doing so, system developers and instructors can correspondingly prepare and promote course materials and activities for the mobile landscape.

Today, computer-based e-learning systems, such as Blackboard and Moodle, have been widely accepted in online and on-campus education. Educational institutions are now thinking of how to implement mobile learning in practice and integrate it into the existing online learning framework. The most important aspect of our present study is to identify the unique factors of mobile learning that are different from traditional e-learning.

Broadly speaking, conducting e-learning through wireless laptops is also mobile learning. However, there is little difference between accessing online material from desktop computers and from WIFI-connected laptops. As a result, our research considers only mobile learning as learning from smartphones and tablets. With this study, we investigate key acceptance factors regarding mobile learning based on students' experiences using Blackboard Mobile Learn, a specific mobile learning platform. This chapter is organized as follows. First, we review the background of mobile learning and related acceptance research activities. Next, we propose a research model and hypotheses. Then, we describe the research methodology applied in this study and conduct data analysis. In the last section, we discuss the implications to theory and practice and the limitations of the present research and offer recommendations for future research.

TECHNOLOGY ACCEPTANCE AND MOBILE LEARNING

Technology acceptance is a widely investigated topic in the application of information systems. When researchers develop a new information technology or system, a natural question to ask is whether people would like to use it. Specifically, we need to know what factors are the key determinants of users' intention of acceptance. Although the basic factors in the technology acceptance model—that is, perceived usefulness and perceived ease of use—toward users' acceptance (Davis, 1989) are similar no matter what type of information technology we are studying, different technologies do have some unique factors regarding users' acceptance depending on their specific functions and application scenarios. Therefore, the original Davis (1989) technology acceptance model has been continuously revised to adapt to different scenarios. Based on eight previous acceptance research models, Venkatesh, Morris, Davis, and Davis (2003) developed the united theory of acceptance and use of technology (UTAUT) model, which includes performance expectancy, effort expectancy, social influence, facilitating conditions, and four other moderators. The UTAUT model can better explain users' intention of information technology acceptance than the eight original acceptance models (Venkatesh et al., 2003).

Since the introduction of e-learning, researchers have conducted various investigations into the acceptance of e-learning management systems (Escobar-Rodriguez & Monge-Lozano, 2012; Sánchez & Hueros, 2010) and have produced many meaningful findings. Sánchez and Hueros (2010) identified that technical support has a direct effect on ease of use and an indirect effect on use intention of e-learning

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