Chapter 52

Instructor Perceptions and Intentions to Use a Tablet PC for Mobile Learning in a Ghanaian University:
An Exploratory Case Study

Stephen Asunka
Ghana Technology University College, Ghana

ABSTRACT

This study used aspects of the Technology Acceptance Model (TAM) to predict instructor acceptance and adoption of a tablet computer for mobile learning in a Ghanaian University. Following the distribution of a customized tablet PC (known as Campus Companion) to all instructors of the institution, and an expectation that they will use these devices to support and facilitate mobile learning, data on instructor perceptions, attitudes, and behavioral intention to use the technology were gathered and analyzed. Thirty-eight (38) instructors participated in the study. Findings show that instructors' intentions to use the tablet PC for mobile learning are very low, and are significantly influenced by their perceived usefulness, perceived ease of use and attitude towards the device. Implications of these findings for practice and further research are discussed within the context of the adoption of m-learning within the Ghanaian higher education context in particular and the developing world in general.

INTRODUCTION AND PURPOSE

Mobile learning or m-learning represents anytime and anyplace engagement in learning through Internet and wireless enabled mobile (personal) electronic devices, or as Wexler et al (2007) specifically put it, "any activity that allows individuals to be more productive when consuming, interacting with or creating information mediated through a compact digital portable device that the individual carries on a regular basis, has reliable connectivity and fits in a pocket or purse" (p.7).

The proliferation of personal mobile computing devices (Smartphones, iPad, Tablet PCs etc.), coupled with wireless communication technologies (WiFi, Bluetooth, GPS etc.) have created a wide array of new possibilities for technology users. In addition, these devices are becoming increasingly ubiquitous in the daily activities of most people, and in academia, particularly in higher education, it has been established that students spend more time using mobile tools for informal learning and collaborative activities than in formal school settings (Dahlstrom, 2012; Wang, Wu, & Wang, 2009).

Educators are therefore generally of the opinion that making teaching and learning processes accessible through personal mobile devices and technologies should be of benefit to students since these devices are in their direct control anytime and anywhere. M-learning processes therefore have the potential of facilitating and also enhancing learning through increased learner engagement, attention and participation in instructional and collaborative activities. Indeed, m-learning has been predicted to have a long-term impact on education (Martin et al., 2011), and a growing number of initiatives are demonstrating ways in which this approach can help confront existing educational challenges and pioneer new strategies for learning (McKinsey & Comapany and GSMA, 2012).

This notwithstanding, m-learning is still very much in its infancy in the higher education, particularly in Sub-Saharan African higher education (Docebo, 2014). This is not surprising, given that instructional design, pedagogical and best practice frameworks of m-learning are still being developed, while no clear standards presently exist for guiding the design and development of learning initiatives that take into account the different kinds of mobile technology platforms available (EDUCAUSE Learning Initiative, 2010). Challenges also exist from the user perspective, for example, the small screen sizes, limited processing powers and graphical limitations of most mobile devices means instructors and learners might be spending more than necessary time searching for and accessing information (Motiwalla, 2007). Additionally, the preponderance of social media applications on m-learning devices can be potentially disruptive of learning as students tend to multitask when using these devices.

Within the context of these challenges, one cannot be certain the extent to which instructors and learners are willing to accept m-learning as a viable means of delivering quality learning experiences. Interestingly however, several Ghanaian higher education institutions are hoping to mainstream m-learning into their educational practices by simply providing instructors and students with mobile computing devices (tablet computers in particular) and accompanying software applications, but rarely carry out evaluation studies to help predict and explain user acceptance, usability and usage levels of these devices for m-learning etc. Since instructor acceptance is a crucial factor in the success of a technology based educational initiative (Gong, Xu, & Yu, 2004), such studies have the potential of providing critical feedback that can help guide institutions pursue appropriate corrective steps as they make the inevitable transition to m-learning in the not too distant future.

Against this backdrop, and following the distribution of a customized tablet computer to instructors in one Ghanaian higher education institution, this study sought to predict these instructors' intention of using the device as the main platform for furthering m-learning in the institution, and also explain their future user behavior using simple measures taken after they had briefly interacted with the system. Findings of the study are discussed within the context of the overall acceptance of mobile learning within the Ghanaian higher education context with the objective of contributing towards the evolution of best-practice m-learning frameworks in Ghanaian higher education.

Related Content

Prediction of the Learners' Attitudes Toward E-Learning Regarding Their Sensation-Seeking Traits in Iran: The Case of Students From Medical Sciences
Alireza Atashpanjehand Mehdi Sargazi (2022). *International Journal of Virtual and Personal Learning Environments (pp. 1-13).*
www.irma-international.org/article/prediction-of-the-learners-attitudes-toward-e-learning-regarding-their-sensation-seeking-traits-in-iran/309981

Survey of Students' Perception and the Influence of Learning Style Preferences on Learner's Intention to Use 3D Visualization Instruction: Learning Style and 3D Visualization Instruction
Yu-Hsin Hung, Ray I. Changand Chun Fu Lin (2016). *Handbook of Research on 3-D Virtual Environments and Hypermedia for Ubiquitous Learning (pp. 297-316).*
www.irma-international.org/chapter/survey-of-students-perception-and-the-influence-of-learning-style-preferences-on-learners-intention-to-use-3d-visualization-instruction/153778

Perception of Stakeholders on the Use of Social Networking Tools for Classroom Instruction in School Environment: Use of Social Network Tools for Classroom Instruction
Ogunlade Bamidele Olusola, Olubusayo Victor Fakuade, Bamidele Olusola Ogunladeand Omoron Josephine Akhigbe (2019). *Open and Social Learning in Impact Communities and Smart Territories (pp. 64-83).*
www.irma-international.org/chapter/perception-of-stakeholders-on-the-use-of-social-networking-tools-for-classroom-instruction-in-school-environment/210406

Predicting the Academic Performance of Students Using Utility-Based Data Mining
Sidath R. Liyanageand K. T. Sanvitha Kasthuriarachchi (2020). *Utilizing Educational Data Mining Techniques for Improved Learning: Emerging Research and Opportunities (pp. 56-85).*
www.irma-international.org/chapter/predicting-the-academic-performance-of-students-using-utility-based-data-mining/235882

Mechanics Simulations in Second Life
Kelly Black (2010). *International Journal of Virtual and Personal Learning Environments (pp. 31-44).*
www.irma-international.org/article/mechanics-simulations-second-life/43576