



M LEARNING AND COLLEGE EDUCATION

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Abstract:

M-learning is a new stage in the development of e-learning and distance learning. It refers to any learning which takes place via wireless mobile devices such as smart phones, PDAs, and tablet PCs where these devices are able to move with the learners to allow learning anytime, anywhere (Naismith et al., 2006; Wang, Wu, & Wang, 2009). The fast spread of mobile devices and wireless networks within university campuses makes higher education a suitable place to integrate student-centered m-learning (Cheon et al., 2012). Mobile learning that utilizes ubiquitous devices will be a successful approach now and in the future because these devices (PDA, tablet PC, smart phone) are more attractive among higher education students for several reasons; one of them is that the mobile devices are cheaper compared with normal PCs; also, they are satisfactory and economical tools (Mohamad et al., 2010). Mobile devices have become more affordable, effective, and easy to use (Nassuora, 2012). These devices can extend the benefits of e-learning systems (Motiwalla, 2007) by offering university students opportunities to access course materials and ICT, learn in a collaborative environment (Nassuora, 2012), and obtain formative evaluation and feedback from instructors (Crawford, 2007), (Abualaish and Love, 2013). This paper will discuss the benefits of m learning to college and graduate students and the methods university professors adopt to promote M learning at the university teaching and learning environment.

Keywords: m learning, college students, higher education

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1. Introduction

Mobile technologies are those that make use of wireless technologies to access some sort of data. In the case of higher education, these data are typically class lectures, notes, readings, assignments, etc. that students connect with to either participate fully or partially in coursework. This type of education has been termed “m-learning” and is most effective when it is interactive among two or more individuals. M-learning tools include such devices as cell phones, Kindles, Nooks, e-readers, iPads and other digital readers, and MP3 players. Each of these devices has the element of portability, allowing users to physically move about a campus without being attached to a single location (Newman, Miller, Grover, 2015).

Universities today face new challenges. Exponential growth in the demand for higher education, significant decreases in government funding for education, the changing nature of knowledge, changing student demographics and expectations, and global competition, in the provision of higher education and rapid advances in information and communications technologies demand a reexamination of how universities fulfil their core functions of storage, processing, dissemination, and application of knowledge to real-life problems (Rajasingham, 2011). Rajasingham stated that over the ages universities have undergone many conceptual paradigm shifts in what and how they teach and to whom. Medieval theological elitist universities became modern industrial universities. Emerging virtual universities are attempts by institutions of higher education to change with time in order to remain relevant in the future. The effects of the digital age on higher education - concepts such as e-learning and mobile learning (m-learning) - are subjects of interesting academic research. They seem, however, to be somewhat divorced from the day-to-day realities that currently face students and teachers (Rajasingham, 2011).

2. The statues of universities and colleges

Colleges and universities are being called upon to adapt to the changing nature of student interests, characteristics, and behaviors Neman, Miller and Grover said .They continued that such changes range from the structure of residence hall rooms and the food selections offered in cafeterias to the kinds of digital materials libraries acquire and how technology is utilized to facilitate learning. The bulk of these kind of changes can be accounted for in Sporn’s (1999) theory of adaptation, where organizations, including colleges and universities, either change or adapt their operations to meet user needs, or they become obsolete. This is particularly true in competitive organizations, such as colleges and universities that must compete for students, faculty, and other resources

(Newman, Miller, Grover, 2015). The evolution of wireless technologies and the development of applications for mobile devices in higher education have been spectacular. For many educators, mobile technology in the field of teaching and learning has recently become one of the most important areas of research. Today, mobile learning is a strategic topic for many organizations concerned with education (Ally, Blazquez, 2014). One significant way that colleges and universities have adapted to recent changes in student and faculty behavior and interest is through the inclusion and integration of technology. Technology has become a common element in traditional classroom presentations and teaching (such as PowerPoint presentations), how learning is distributed (such as online courses), how students register and manage their enrollment, and even how students access their grades, plot progress toward graduation, and run simulations about changing majors. Most recently, college leaders have begun to look more critically at how mobile technologies can be used to enhance or augment the experience collegiate (Newman, Miller, Grover, 2015).

The reasons underpinning the use of mobile technology in education have been explored by Kukulska-Hulme, who identified the three main motivations as being: improving access, exploring the potential for changes in teaching and learning, and alignment with wider institutional or business aims. Where the emphasis is on changing teaching and learning, practitioners and researchers are interested in collaborative learning, students' appreciation of their own learning process, consolidation of learning, and ways of helping learners to see a subject differently than they would have done without the use of mobile devices. Just-in-time learning and support for managing learning are also key interests. There is awareness that the new technologies may have a role in reducing cultural and communication barriers, and that they are altering attitudes and patterns of study (Hulme, 2007).

3. Mobile learning in current time

Technological advancements have changed the way we communicate, learn, create, share, and publish information, and have even changed the way we live in the 21st century. Some predict that the number of mobile devices will exceed the entire planet's population at the end of 2013 (Cisco, 2012). The mobile learning (m-learning) transformation as well as the functionality and cost of mobile devices has made learning and education possible in diverse settings. Mobile devices have been changing the lives and learning of millions of people around the world in ways we could not have imagined a couple of decades ago (Wilson, Zygouris, 2015).

Traxler argued that mobile education, however innovative, technically feasible, and pedagogically sound, may have no chance of sustained, wide-scale institutional

deployment in higher education in the foreseeable future, at a distance or on site. This is because of the strategic factors at work within educational institutions and providers. These strategic factors are different from those of technology and pedagogy. They are the context and the environment for the technical and the pedagogic aspects. They include resources (that is, finance and money but also human resources, physical estates, institutional reputation, intellectual property, and expertise) and culture (that is, institutions as social organisations, their practices, values and procedures, but also the expectations and standards of their staff, students and their wider communities, including employers and professional bodies).

Implementing wireless and mobile education within higher education must address these social, cultural, and organisational factors. They can be formal and explicit, or informal and tacit, and can vary enormously across and within institutions. Within institutions, different disciplines have their own specific cultures and concerns, often strongly influenced by professional practice in the 'outside world' – especially in the case of part-time provision and distance learning. Because most work in mobile learning is still in the pilot and/ or trial phase, any explorations of wider institutional issues are still tentative (Traxler, 2005; JISC, 2005) but it points to considerable hurdles with infrastructure and support (Traxler, 2007). M-learning can provide wireless communication between lecturers and students and between students themselves. It can work as additional support to complement and add value to existing learning models. In addition, it is expected to become one of the most effective ways of delivering higher education materials in future (Abu-al-Aish, Love, 2013).

Formal learning is traditionally characterized by two constants or boundaries: *time and space*. Learning places occupy fixed, physical spaces which are defined by relatively impermeable boundary objects such as walls, classrooms and school buildings. Similarly, traditional learning is situated in permanent temporal slots such as teaching periods (timetables or semesters) which are relatively immutable ([Traxler 2009](#)). M-learning has the potential to transcend these spatial and temporal restrictions, overcoming “the need to tie particular activities to particular places or particular times” (Traxler 2009, 7) in (Kearny, Schuck, Burden, Aubusson, 2012). Mobile learning can occur wherever people find a need.

Traditionally learning is seen to occur in formal settings like classrooms and lecture theatres whereas informal and continuing learning occurs as we wait for a bus, converse with a colleague over lunch, or engage in work experience. In some circumstances, it is better to choose one technology over another. A digital camera for instance may provide higher resolution images than those taken with a mobile phone. However, being ubiquitous and portable, there is a greater chance that the mobile phone will enable the user to capture spontaneous events (Herrington et al, 2009).

4. Challenges encountering college m learning

There are multiple challenges for integrating m-learning into the college campus, including the challenge of developing buy-in or consensus about using these technologies by college faculty. Few argue the centrality of faculty members as the primary tool for student learning, although generational issues have sparked debate about the intention, role, and appropriate use of technology. Some of this debate has arisen from those who see 'digital-immigrants' as resisting technology. Digital immigrants are those who were raised or received their academic training prior to the internet revolution, and the argument holds that because they are new, or newer, to technology, they resist its use out of stubbornness or an unwillingness to see value in technology-mediated learning. The immigrants' primary rallying cry has been traced to any number of possibly related variables, such as poor student performance, poor student achievement in comparison to global competitors, an over-involvement from parents, grade inflation in high school, and even a diminished work ethic among the Millennial generation (Newman, Miller, Grover, 2015). There are several issues facing the adoption of m-learning, and there are pedagogical issues regarding the use of mobile devices in classrooms; will it disturb the learning process? (Corbeil & Valdes-Corbeil, 2007; Park, 2011). Also, will users (both students and lecturers) adopt this technology? Users may not be willing to accept m-learning (Wang, Wu, & Wang, 2009). In addition, some university lecturers do not want to apply this technology or might face difficulties in trying to use it effectively as this new technology may require a lot of effort to implement (Abu-Al-Aish, Love, 2013).

Newman, Miller, and Grover see that for policy makers broadly and college administrators specifically, there is a tremendous need to bridge the gap between the two extremes of faculty member behaviors and attitudes toward m-learning. Although this is a broad conversation, technology is both an administrative and instructional tool that has become a formal part of the higher education landscape and will continue to embed itself more deeply in the student experience. The most common administrator to deal with technology is the department chair, an administrative position that has been attributed with making 80% of all administrative decisions on the college campus (Newman, Miller, Grover 2015).

5. Conclusion

Hulme stated that the diversity of reasons for use of mobile technologies in education makes it difficult to make any generalizations about requirements. Nevertheless, there are attempts to characterize these requirements, including in relation to interface design

and usability. Nielsen (2001) has remarked that although general usability standards apply equally to e-learning, there are additional considerations, for example the need to keep content fresh in learners' minds so that they do not forget things whilst trying to accommodate new concepts. User-centred system design and evaluation have traditionally been driven by the concept of a 'task.' To a certain extent, it is possible to list the kinds of tasks that learners engage in. For example, Rekkedal (2002) has suggested that mobile learners in distance education need to be able to perform tasks such as studying the course materials, making notes, writing assignments, accessing a forum, sending and receiving e-mail, and communicating with a tutor. The process of learning, however, is not always easily broken down into tasks, and something like 'studying course materials' is no more than a label that conceals great complexity in how the materials might be studied. Ryan and Finn (2005) have commented on the difficulty of task analysis in relation to mobile learning 'in the field,' in the course of their attempts to define the generic requirements of users who typically operate out in the field (e.g., geologists, archaeologists, journalists, technicians, police). It is also very challenging to design and evaluate tools that support learners' development and interactions with others over time (Hulme, 2007).

Conventional approaches to usability tend to be limited to metrics relating to time taken to complete a task, effort, throughput, flexibility and the user's attitude. Syvänen and Nokelainen (2005) have attempted to go beyond this by combining technical usability criteria (such as accessibility, consistency, reliability) with pedagogical usability components such as learner control, learner activity, motivation and feedback.

Kukulska-Hulme and Shield, (2004) and Shield and Kukulska-Hulme, (2006) have also argued that usability needs to be understood differently when it is being evaluated in the context of teaching and learning, and that the concept of pedagogical usability can be helpful as a means of focusing on the close relationship between usability and pedagogical design. Exploring this concept raises the question of whether there are aspects of pedagogical usability that are discipline-specific; this is examined by Kukulska-Hulme and Shield (2004) in relation to the discipline of language learning. In websites that support language learning, usability might depend on whether the site uses the first or target language, and on its ability to support multimodal and intercultural communication. The ways in which language experts conceptualise user interfaces may also be specific to the culture and sub-cultures of their discipline. These aspects can be hard to quantify and measure, but it does not mean that they are less important (Hulme, 2007).

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