

---

June – 2007

## ***Book Review – Mobile Learning: A handbook for educators and trainers***

**Editors:** Agnes Kukulska-Hulme and John Traxler (2005). *Mobile Learning: A handbook for educators and trainers*. London and New York: Routledge. ISBN: 0-415-35740-3, paper back.

**Reviewed by:** Sanjaya Mishra, Indira Gandhi National Open University, India

Most conventional educational activities are time and space dependent. With the emergence of the correspondence education, a new era of education started that was not entirely dependent on time and space requirements. Education in the form of printed materials reached the learners wherever they are, rather than learners coming to the classrooms. These learners were mobile (changed places due to job mobility and other situations), and used the learning materials anytime, anywhere. But, it was never called mobile learning! However, with the increased use of mobile phones and Personal Digital Assistants (PDAs), and the demands for just-in-time education, a new genre of teaching-learning emerged in the form of 'Mobile Learning.' With the rapid growth in the number of users of mobile devices around the world, it is touted as the new found panacea for education in the less developed world. The book under review is a testimony to the current interests in the use of mobile technologies in education. Agnes Kukulska-Hulme and John Traxler bring together a group of researchers to report their indulgence with mobile technologies and education. The book includes 12 case studies and eight general chapters on mobile learning, besides an exhaustive glossary on the topic at the end.

In Chapter 1, Agnes Kukulska-Hulme provides an overview of mobile learning and explains the 'ubiquitous,' 'pervasive,' and 'ambient' nature of mobile devices. John Tinder in Chapter 2 describes the mobile technologies, especially their types, technical characteristics, and performance, and provides advice on how to choose a PDA. In Chapter 3, the editors discuss the pedagogy of mobile learning that can be broadly categorized into: didactic content, discursive interactions, generic academic support, subject-specific support, and guidance and support. They concluded that "Mobile learning can be spontaneous, portable, personal, situated; it can be informal, unobtrusive, ubiquitous and disruptive" (p. 42). In Chapter 4, Kukulska-Hulme analyses the usability of the mobile devices from human computer interaction perspective and reviews the twelve case studies presented in the book from Chapters 7 to 18. The ergonomic and pedagogic challenges of using mobile devices such as PDAs are highlighted in this chapter. Chapter 5 deals with an important issue – accessibility of mobile learning. Though primarily focused on the legal provisions of the UK for learners with disabilities, it discusses the principles of universal design for mobile devices. Many mobile devices include these features, and interestingly these are also useful to other users without any disabilities. This chapter also emphasizes the importance of creating accessible materials for mobile learning. In Chapter 6, John Traxler gives an overview of the 12 case studies, of which eleven used PDAs for delivery of teaching and learning.

The use of mobile phone, particularly the use of short messaging services (SMS), has been described in Chapter 7 by Mike Levy and Claire Kennedy to demonstrate how they were engaged with students over a seven-week period to teach 'Italian Literature and Society' in Italian language. The SMS technology proved to be suitable for vocabulary learning in this study. In Chapter 8, Andy Ramsden describes the delivery of a HTML and ASP based learning materials to Palm Pilot PDAs through wireless network. Ramsden highlights two important issues – (a) Design and authoring of materials for PDAs by maximizing the accessibility and minimizing the need for re-purposing existing materials like the *Blackboard*-based course materials; and (b) Need for appropriate pedagogical designs to harness the unique potential benefits of mobile technology. Chapter 9 describes a mini-project on portable learning and assessment at the University of Glasgow that used PDAs to teach a course on semiconductor design and technology. Chapters 10, 11 and 17 describe the use of mobile devices in medical education, though these experiments covered only a small population of learners. Chapter 12 describes the Sussex Mobile Interactive Learning Environment (SMILE) project and emphasizes whether it is m-learning or e-learning; what students want is 'personalization.' In Chapter 13, Agnes Kukulska-Hulme discusses the experiences of the project on e-book reading using PDAs by Open University students; and Mark Polishook in Chapter 14 describes the use of PDAs to compose music at the Central Washington University. Mike Sharples et al in Chapter 15 describe the experiment related to design of a student learning organizer for use in PDAs. Though the experiment was never expected to explore learning gains, the survey showed that it had not enhanced their learning; and though the PDA entered the activity space of communication and entertainment of the students, it never replaced other gadgets such as laptops, mobile phones, and MP3 players. Chapter 16 describes one of the most sophisticated uses of mobile devices in education at the Nanyang Technological University, Singapore. The system includes the use of wireless network, PDAs, mobile phone with Wireless Application Protocol (WAP), Mobile Ad hoc NETWORK (MANET), and General Packet Radio Services (GPRS). The system enables learners to be connected to the university's e-learning system anywhere, anytime, and not just within the hot spots of the university campus. The University of South Dakota's Plam initiative is described in Chapter 17, while in Chapter 18 use of PDAs in IBM has been discussed.

John Traxler in Chapter 19 analyses the institutional issues in embedding and supporting m-learning. It analyses m-learning from the viewpoint of finance, quality and change management in the institution. While the discussions in this chapter are highly relevant to any organization, the author admits that "it is probably the chapter with the greatest UK focus" (p. 173). The last chapter by Agnes Kukulska-Hulme is a brief review of reasons for using mobile technologies, their benefits and pitfalls as described by various authors in this book.

Though a number of reasons and benefits have been identified, it would suffice to say that the most important reason to use mobile learning is to provide just-in-time support to learning. The support could be content related, administrative related or personal guidance related. The current available mobile devices may have certain impediments in terms of battery life, size and cost. But, the rapid advancement in technology and constant reduction in price have made it one of the most diffused technology available to us with over "77 percent of the world's population" (p. xiv) within the reach of a mobile network. In order to teach through mobile technologies, it is important to develop appropriate pedagogical designs compatible to specific technologies. Through this book, the editors have successfully demonstrated some of the innovative use of mobile devices. However, not all experiments reported were a success, and it would be difficult to generalize the findings as most of the experiments covered a very small population. Technology use of the time is yet another factor to look into. Today, m-learning can use a collection of tools

that tutors and instructional designers can combine to deliver their teaching resources. Some of these are:

- SMS (text messaging) for skills test and for collecting feedback
- Learning from audio (iPods, MP3 player, Podcasting)
- Java-based quizzes
- Learning modules use on PDAs
- Collection of pictures and video using camera-phone
- Online publishing, including blogging, email, etc.
- Field trips using GPS and positional tools (Stead, 2006).

M-Learning will be more and more pervasive and ubiquitous in the coming years, and for all those who would like to use these cutting edge technologies, this book is a definitive starting point.

## Reference

Stead, G. (2006). Mobile Technologies: Transforming the future of learning. In *BECTA: Emerging Technologies for Learning*. Conventry, UK: BECTA. Retrieved June 26, 2006 from:  
[http://www.becta.org.uk/corporate/publications/documents/Emerging\\_Technologies.pdf](http://www.becta.org.uk/corporate/publications/documents/Emerging_Technologies.pdf)

