

## BOOK REVIEW

### Mobile Learning: Transforming the Delivery of Education and Training

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The use of mobile devices in education and training is a new phenomenon. There have been positive developments in the area with regard to use of mobile technologies. Mobile learning further enhances the flexibility to access learning material and other sources of knowledge. While giving control of learning, mobile devices allow learners to continue their learning anytime and anywhere.

The volume in hand was initially published in 2009 and the second printing came out in 2011. The book came at an appropriate time when uses of mobile devices are being explored by educational institutions, commercial organisations and public governance agencies. The penetration of mobile devices among people across the globe is exponentially increasing. The smart mobile devices are the latest attraction. Keeping in view mobile usage, it has been encouraging for educational institutions to tap into this technology to push their boundaries. It is an expectation as well as an opportunity for educational institutions to enrich their educational and training experiences by way of integrating mobile technologies and transforming delivery of education and training.

The book primarily covers different mobile devices and technology being used; design and development of learning material compatible with the smart devices; and strategies for delivery of learning and training through these hand-held devices. The book also examines the range of uses of mobile devices in learning and presents a canvas of theoretical and practical aspects of formal and informal uses of these devices.

The book has three main parts and all the parts contribute to the progression of the main theme one by one. The first part sets the stage for the second part by providing a theoretical framework of mobile learning and discussing an ideal model of use of the technology, while presenting the current status of the technology in different settings. The second part discusses the research framework of mobile learning and makes suggestions for the development and implementation of mobile learning and training initiatives in times to come. The third part focuses on case studies in mobile learning and presents some of the successful models of implementation of mobile learning projects. The best practices of mobile learning are discussed throughout these case studies.

Part One on '*Advances in Mobile Learning*' contains two chapters. Chapter 1, by John Traxler, defines mobile learning from different perspectives. It explores the issues connected with mobile learning and propagates its sustainable development through resolution of these issues. The author opens the discussion on the scope of integration of mobile learning in distance learning. The in-depth discussion on techniques and principles for development of appropriate evaluation methodologies for mobile learning also finds a place in the presentation.



In Chapter 2, Marguerite L. Koole describes mobile learning as a process – a product of “*convergence of mobile technologies, human learning capacities and social interaction*”. The author contextualises the FRAME Model (*Framework for the Rational Analysis of Mobile Education*) for addressing different contemporary issues. It is argued that the model can be used for development of different components of mobile-mediated virtual environments. It could help the stakeholders in understanding mobile learning and augmenting its benefits.

Part Two on ‘*Research on Mobile Learning*’ contains Chapters 3 to 6. Chapter 3, by Torstein Rekkedal and Aleksander Dye, discusses the basic pedagogical philosophies focusing on the lessons learned during the integration of mobile learning at the Norwegian Knowledge Institute. The reflections from these mobile learning projects raise many pragmatic issues which would usually form part of such a project on mobile learning. However, the solutions put forth by the authors may need to be contextualised as per the prevailing local conditions. In order to overcome the issues of cost, the learning material should be developed and presented in such a manner so as to facilitate both mobile and distance learning environments at the same time.

Richard F. Kenny, Caroline Park, Jocelyne K. C. Van Neste-Kenny, Pamela A. Burton, and Jan Meiers examine the applicability and usability of mobile learning in nursing education in Chapter 4. The authors base their analysis on the FRAME Model by Koole, as discussed in Chapter 2. The authors have found that the use of mobile learning in nursing education is feasible, subject to certain issues to be addressed appropriately for enhancing the effectiveness of the pedagogical transitions. The implications of such a usage in the instructional context also find a place in the discussion.

Even though not clearly specified, formal learning is often juxtaposed with informal learning. Students, it is invariably claimed, are spending long hours in informal learning activities. It may sometimes outweigh the time spent by them on formal learning. This is the very topic of Chapter 5 by Gill Clough, Ann C. Jones, Patrick McAndrew, and Eileen Scanlon. The authors build their plot justifiably to study the ‘*informal learning practices of enthusiastic mobile device owners*’. The results suggest that mobile users make use of their devices to support their learning by performing informal learning activities. It may happen intentionally or unintentionally. Some of the participants of the study even adapted their devices to fulfill different learning needs. This adaptation was far more complex than the simple appropriation process.

Chapter 6, by Kristine Peters, presents findings of a research study on the use of mobile technologies for commerce and learning. The author argues that the use of mobile technologies was common in the commercial sector, though their use in learning was not common. However, their use in learning can pave the way for new methods of education delivery on a ‘*just enough, just in time, and just for me*’ basis. They can be best suited to the demand of the learners in the 21<sup>st</sup> century. The mobile technologies can provide tailor-made training and learning, satisfying the individual needs of the learners. The learning could be situated and contextualised with the help of peers and teachers.

Part Three focuses on the ‘*Application of Mobile Learning*’ in Chapters 7 to 13. While the use of mobile devices has become common, not many studies are available as to how the users are making use of these devices in teaching and learning or for that matter, at work or during their leisure time. Chapter 7, by Agnes Kukulska-Hulme and John Pettit, focuses on this very aspect of mobile usage. The

authors have made an in-depth investigation on the use of personal mobile devices by the students of an online and distance education master's degree programme offered by the UK Open University's Institute of Educational Technology. The findings may help those involved with mobile learning in identifying the devices, which could be beneficial for a section of learners and also ensuring better use of these devices. The authors found that mobiles have become a common tool in the hands of the users, which serves different purposes in the formal and informal contexts. The mobile devices are creating new contexts in learning environments.

Claire Bradley, Richard Haynes, John Cook, Tom Boyle, and Carl Smith in Chapter 8 discuss design and development issues in mobile learning with the help of '*prototypes of multimedia learning objects*'. The authors also analyse various design and development issues in the process while focusing on the principles of design and development of '*multimedia learning objects*'. The developers need to address all the issues arising out of the new situation. The key issue has been how to integrate multimedia learning objects with mobile phones in a campus-based teaching environment.

Chapter 9 shares the experiences of a training programme of managers of Technology Transfer following a blended learning approach. These managers work for an Italian Scientific Technological Park. Michelle Pieri and Davide Diamantini found that the mobile-based training method suited the managers, since it allowed them to put to good use their extra time spent travelling on the bus or just waiting, in other cases. However, there was a need to develop pedagogical strategies for using the experiential element to strengthen the learning process and enriching the learning experiences of the trainees.

Merryl Ford and Teemu Leinonen present a case study on the MobileED project in Chapter 10. The project is a South African initiative focusing on mobile tools and services platform for formal and informal learning. The authors examine the place of mobile devices in this educational scenario. Similar projects are being replicated in other countries such as Finland, India, and Brazil. The project introduces the concept of '*audio Wikipedia*' in a South African context, which is considered vital for African oral tradition. The authors see the institutionalisation of mobile device use in an African context as a major challenge, keeping in mind the alleged illicit use of these devices in the schools.

In Chapter 11, Jon Gregson and Dolf Jordaan, present a case study based on a mobile learning project. The study focuses on the post-graduate students of a distance learning programme in the Southern African Development Community (SADC) region. The authors make a detailed analysis of challenges emerging out of the context and suggest the ways these challenges could be overcome, and how mobile tools could be used in a beneficial way. They propagate innovation in design, development and delivery of distance learning programmes. The study puts forth salient findings as to how mobile learning can help achieve the objectives of ODL programmes. Mobile technologies can be used to provide customised services to individual learners and to enhance their learning. The authors feel that the real challenge is how to integrate mobile learning into the holistic learning modes in the institution for the benefit of the learners.

As the theme of the book indicates, mobile technologies can be used to enrich pedagogical processes in formal and informal learning situations. These technologies can be contextualised to deliver flexible learning support services to learners, in accordance with a learner-centered approach. Chapter 12, by Laura Naismith and M. Paul Smith, carries forward in the same spirit but for delivering '*learner*

*centered experiences'* in a traditional museum setting. The authors present a study focusing on two Flash-based multimedia tours which were designed and developed for Hypertag Magus Guide System. These multimedia tours were tried with visitors to the Lapworth Museum of Geology, University of Birmingham. The results revealed that mobile technologies have a great potential for use in a museum setting. The authors believe that the use of mobile has the '*ability to respond quickly to global geological events, such as volcanic eruptions or earthquakes*'. Some of the challenges identified by the authors are: technical reliability of mobile devices; keeping the device interaction simple; keeping the system compatible to user-owned devices; work load; cost of use; training and support of staff members; and designing and developing new mobile learning objects.

Jocelyn Wishart in Chapter 13 deals with a UK Teacher Development Agency funded small-scale project. The focus of the project is on use of mobile technology for teacher training. The mobile devices used primarily for the experiments were Personal Digital Assistants (PDAs) and smart phones. The author found that management of information in an efficient manner is pre-requisite in order to enable the users to reap the benefit of mobile technology use, though the teachers and trainees both realized the potential of PDA for pedagogical support. In order to enhance the effectiveness of the experiment, the institutions need to recognize the mobile devices as part of an ICT system for the institution holistically.

Mobile technologies have the potential to make teaching and training happen in a manner like never before. The book reviewed here justifies the need as well as the potential of these technologies. The chronological order of the chapters bring maturity to the discussion of the theme step by step, where the initial chapters set the stage for the principles and theoretical framework of mobile learning, the subsequent chapters help grow the theme and the last chapters present mobile learning practices within case studies. The use of mobile technologies in education and training are indispensable since their uses in the commercial world have already proved beneficial. Thus, educators and trainers need to examine these technologies thoughtfully. The individual authors have tried to focus on the main theme of the book, while discussing their individual projects. I am sure the book might have created a niche for itself by now in the world of mobile learning. The book is a must read for researchers and educational technologists working in the area of use of mobile technologies for pedagogical purposes with a flexible learner-centric approach for formal and informal settings.

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