

Key Aspects of Mobile Learning: A Review of Five Articles

Edward Roach

University of North Texas

CECS 5030 AOP Spring 2014 Session B

Abstract

If we look around us at work, at school, or at home we see people spending more and more time using mobile devices for an increasing number of different purposes (Terras and Ramsay 2012). Coupled with an increasing demand for more and more knowledge, this increased presence of mobile technology in our lives means that mobile learning has become an important issue (El Fatouh and El-Bakry 2013). Perhaps because it is new, the term mobile learning lacks one universally accepted definition. However, there are certain key aspects of mobile learning that illustrate what it is and which help to establish a framework for why and how it matters. This paper reviews five articles focused on different dimensions of mobile learning and identifies three key aspects of mobile learning that are of primary importance when considering this emerging field. These three key aspects are: the user experience, the learning context, and instructional design.

Key Aspects of Mobile Learning: A Review of Five Articles

Mobile learning is developing fast – not just in terms of applications and widespread adoption but also in terms of its philosophy and standards. Until recently, mobile learning was a minor but complementary technology to other forms of online learning. Prompted by the rapid growth in mobile devices, it is becoming a major delivery mechanism for learning and performance support materials (Little 2012). No training/learning professional can afford to ignore mobile learning these days. To help focus on what is critical about mobile learning, three key aspects must be considered: the user experience, the learning context, and instructional design.

The user experience with mobile devices is unlike the experience of using any technology that preceded it. For one thing, the mobile technology of smartphones and tablets relies on touch-screen interfaces. Mobile devices rely on the user's fingers being in direct contact with the screen, whereas a computer user relies on a mouse or touchpad to interact with the graphical user interface.

The practical reality here is that touching things makes us feel differently about those things. This is the core idea behind interface differences in mobile and has manifested in enhanced concentration of students when they are engaged in mobile learning (El Fatouh and El-Bakry 2013).

The user experience with mobile learning is also highly personal because mobile devices themselves are highly personal. The relationship between the device and its owner becomes one-to-one, always on, always there, location aware, and personalized (Motiwalla 2007).

The second key aspect of mobile learning is that the context of the learning experience is uniquely influenced by the fact that it is mobile. Mobile learning can take place anywhere at any time and mobile learning is frequently consumed much closer to the point of need than other more traditional types of learning delivery. This changes the learning context to be very immediately focused on use and application of knowledge. Users of mobile learning materials need to be able to distinguish reliable from unreliable information. They need to be sure the content they access and apply is from a trusted source (Sha 2012).

The third key aspect of mobile learning is that it's the learning not the mobile that matters. Today's mobile technology is rife with advanced features and amazing capabilities. Yet merely possessing the technology does not guarantee that the learning materials it helps to develop and deliver are amazingly effective. Although rarely recognized as such, learning technologies are really the accessory. It is the learning that should come first. Merely having the learning delivered via technology does not make it effective (Little 2012). The content of an effective learning program should match the user's immediate learning needs, and those needs are themselves shaped by the mobile experience as discussed previously.

The real difference between effective and ineffective learning materials is the instructional design. Well-designed learning presents the content, guides the student in practice, provides for

independent practice by the learner and assesses how well the learner is doing. This – plus interactivity between learner and program, and motivating the learner – makes a sound foundation for effective instructional design (Sha 2012). When instructional design takes a back seat to the technology that delivers learning, it produces barriers to learning.

These three aspects of mobile learning are critical: the user experience, the learning context, and instructional design. Each is important because the learning is taking place in a mobile fashion. Each of these three is also important because the mobile experience is being driven by a need for learning. Mobile learning is big and getting bigger; the quantity of mobile learning seems to be growing without the need for any help (Chen 2013). By focusing on these three key aspects, the quality of learning delivered in this fashion can steadily improve and keep up with the quantity.

References

- Chen, M., Ma, Y., Liu, Y., Jia, F., Ran, Y., & Wang, J. (2013). Mobile Learning System based on Cloud Computing. *Journal Of Networks*, 8(11), 2572-2577. doi:10.4304/jnw.8.11.2572-2577
- El Fetouh, A. El-Bakry H. Article: A Novel Adaptive Mobile E-Learning Model. *International Journal of Computer Applications* 63(14):12-25, February 2013. Published by Foundation of Computer Science, New York, USA.
- Little, B. (2012). Effective and efficient mobile learning: Issues and tips for developers. *Industrial and Commercial Training*, 44(7), 402-407. doi:<http://dx.doi.org/10.1108/00197851211267983>
- Motiwalla, L. (2007). Mobile learning: A framework and evaluation. *Computers and Education*, 49: 581-596
- Sha, L., Looi, C.-K., Chen, W. and Zhang, B.H. (2012), Understanding mobile learning from the perspective of self-regulated learning. *Journal of Computer Assisted Learning*, 28: 366–378. doi: 10.1111/j.1365-2729.2011.00461.x
- Terras, M. M. and Ramsay, J. (2012), The five central psychological challenges facing effective mobile learning. *British Journal of Educational Technology*, 43: 820–832. doi: 10.1111/j.1467-8535.2012.01362.x