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Thematic Working Group 2
Advancing mobile learning in formal and informal settings

Summary Report and Action Agenda

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1. Background: Setting up the stage

We note that there is yet no consensus on how mobile learning should be defined. Winter (2006) has summarised four main perspectives of mobile learning: (a) technocentric – mobile learning is primarily seen as learning supported by mobile devices, and the focus is on the technology; (b) mobile learning is seen as an extension or a subset of e-learning, and mobile learning research is primarily part of e-learning research; (c) mobile devices are used just to complement and augment formal education; and (d) mobile learning is student-centred and it is about mobility and context. We have seen a gradual shift of understanding of the theory and practice of mobile learning in the last ten years, from a technocentric perspective focusing on the attributes and affordances of the technology, to a learner-centred perspective focusing on the mobility of the learner (not just space and time, but also access to people and resources) and contexts (Kukulska-Hulme & Sharples, 2009). One example of such a perspective is provided by Sharples, Taylor and Vavoula (2007), who define mobile learning as “the process of coming to know through conversations across multiple contexts among people and personal interactive technologies” (p.255). Mobile learning is also understood as closely linked to informal learning, which is characterised by “personal ownership of codified knowledge, user-generated ideas, user-constructed contexts...personal and contextualised, and controlled by the learner” (Laurillard, 2009). Learner control and agency is thus at the heart of mobile learning and both personalised and collaborative learning opportunities can be afforded by mobile technologies. We have begun to see development of theories of mobile learning (e.g., Sharples, Taylor, & Vavoula, 2007; Laurillard, 2007).

The characteristics of mobile learning have been extensively researched (Kukulka-Hulme & Sharples, 2009; Looi, Zhang, Chen, Seow, Chia, Norris, & Soloway, 2010; Pachler, 2009; Sharples, Arnedillo-Sanchez, Milrad, & Vavoula, 2009), and research begins to document the relationship between motivation and mobile learning (Ciampa, 2013), and self-regulation (Sha, Looi, Chen & Zhang, 2011). Trends of research in mobile learning have been reviewed by Hwang and Tsai (2011) and Wu et al. (2012). While we see exemplary case studies of mobile learning practices (e.g. Naismith, Lonsdale, Vavoula, & Sharples, 2004), there is a lack of large-scale projects to document the use of mobile technologies to support learning activities in different contexts in formal learning. There is also a lack of mobile learning research in informal contexts (Looi, Seow, Zhang, So, & Chen, 2010; Wright & Parchoma, 2011). It is recognised that there are inherent difficulties in evaluating technology-enhanced learning (Livingston, 2012; Wellington, 2005) and researchers are currently developing new evaluation methods to assess learning outcomes of mobile learning (e.g., Sharples, 2009). Despite this rapid development there are still very few guidelines for developing mobile learning for a variety of scenarios that address both formal and informal learning contexts.

Overview of needs/challenges identified by TWG2:

Our group believes that mobile learning has huge potential in changing how, what, when, and where students learn and what they are able to learn. However, we have identified several challenges in designing and implementing mobile learning in education:

- Some schools not allowing students to use mobile devices in school
- Policies on students bringing their own devices
- Students not using mobile devices for intentional learning purposes
- The need to change assessment practices
- Equity issues in accessing mobile devices
- Cultural issues in using mobile devices in different contexts
- Cross platform issues in mobile applications
- Design challenges, e.g., size of screen
- Health and safety issues
- Balancing self-directed learning and maintaining privacy with teacher supervision
- Changing roles of teachers and students

2. Recommendations

Our group recommends that:

- Criteria be developed for identifying best practices and models of mobile learning. These criteria should be evidence-based, culturally sensitive, curriculum centered, flexible and scalable, and allow pedagogical changes and student directed learning, and applicable in formal and informal contexts.

- Guidelines and strategies be developed to tackle challenges of mobile learning, including BYOD, interface design, cross problem applications, assessments, equity, cultural, health and safety issues, teacher preparation, quality of learning outcomes, and bridging learning across settings and contexts.

3. Action plans

To realize the recommendations made by our group, the following actions will be undertaken:

- Developing a website to share best practices, criteria, models and resources of mobile learning.
- Developing a model to identify best practices.
- Publishing a number of papers for the academic, policy and professional communities on mobile Learning
- Collaborating among group members on future projects and research.

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