

Mobile learning for literacy, teacher training and curriculum development

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While the field of mobile learning is not new, in recent years it has received vastly increased attention, both from seasoned researchers and practitioners in the field, and from new entrants. The new players include those who have been involved in traditional education and are now turning their attention to the promise of mobile learning, companies interested in its commercial potential, and agencies now seeing mobiles as a perfect medium to deliver their humanitarian missions. The new players may not have either the interests or the subject-matter expertise of those who have been involved in mobile learning for many years. As a result, there is some concern around the level of discussions and claims being made in the name of mobile learning. Is everything being said about mobile learning in fact true? Are all the initiatives that claim to offer mobile learning actually delivering on that promise? Has the spotlight on mobile learning helped to deepen the discussion and maturity of the field, or has it created hype that overpromises and underdelivers?

Behind these questions are fluid and contending views and definitions of mobile learning. There are definitions based on pilots, programmes, and interventions within the education system that enhance, extend and reform the system, ones driven by the rhetoric and funding of innovation; at the other extreme, there are definitions based on new ways of producing, transforming, sharing, discussing ideas, images, information and opinions in the real world, challenging the relevance, credibility and authenticity of the education system. These definitions also challenge the modalities and priorities of UNESCO, working as it does with the institutions of government and the education systems of member states. The pressure for change in education moves from the top-down to the outside-in, and these views and definitions have profound implications for the sustainability and scale of those changes, as well as for the policies and practices related, for instance, to literacy, teacher training and curriculum development.

The present special issue deals precisely with these important problems and uncertainties, while showing how they play out in different contexts and countries. The guest

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editors, John Traxler and Steve Vosloo, invited articles that draw on current empirical and theoretical work and contribute to a more informed discussion and understanding of the issues outlined above. They also sought contributions that grew out of the recent UNESCO initiatives, specifically the second Mobile Learning Week, which critically explore the capacity of mobile technologies to deliver, enhance, and support learning and the Education for All (EFA) goals, especially for the developing and disadvantaged people, communities, and regions of the world.

We are fortunate to publish this collection of articles authored by prominent researchers and practitioners in the field of mobile learning, including Ken Banks, Mohamed Ally, Margarete Grimus, Martin Ebner, Maria Ranieri, Norbert Pachler, Karl Royle, Sarah Stager, Ladislaus Semali, Tataleni I. Asino, Elizabeth Buckner, Paul Kim, Dan Wagner and his students: Nathan M. Castillo, Katie M. Murphy, Molly Crofton and Fatima Tuz Zahra. This impressive collective effort was coordinated by the guest editors: John Traxler, the world's first Professor of Mobile Learning, at the University of Wolverhampton, and Steve Vosloo, Head of Mobile at Pearson South Africa, previously mobile learning specialist at UNESCO.

The issue opens with a powerful Viewpoint by Ken Banks, which draws on his two decades of experience, working on projects in Africa, to connect mobile technology to positive social and environmental change. His early research resulted in the development of FrontlineSMS, an award-winning text message communication system today powering thousands of social change projects in over one hundred and fifty countries around the world. His essay highlights the ways in which mobile technology has revolutionised many aspects of life in the developing world and encourages its use to democratise education opportunities for students, as well as to rebuild local communities and promote economic self-sufficiency and a return to local resource use.

His optimistic approach is followed by detailed analyses of the role that mobile learning plays and could play in the complexity of the current educational landscape, especially in relation to teacher training, quality of education, literacy and adult education. More to the point, the articles add substantive arguments to ongoing scholarly debates, by exploring the potential of mobile learning in adult education; looking at teacher training for a mobile world, in order to improve access to education; addressing ways in which mobile technologies can be used in teacher development; examining the interplay between technology and pedagogy for inquiry-based learning; analysing the role that mobile phones can play in supporting literacy practices; and introducing a design framework for measuring effectiveness in the domain of mobiles for literacy.

This special issue of *Prospects* could not be more timely, given the many educational challenges faced by countries around the world, and the effects of the global recession that have further strained the already limited educational and human resources available; thus, it is crucial to explore every possible avenue to support education, including mobile learning. However, for these same reasons, it is also essential that mobile learning—in the many forms that it is branching into and as practised by the many new players in this field—should be critically examined against its ability to deliver, enhance, and support EFA, and how mobiles challenge and problematise simple notions of EFA defined by ministries and agencies.

Learning with mobile devices has a considerable history and practitioners can now point to significant achievements. The mobile learning research community has demonstrated, in a wide variety of settings, that it can enhance, extend, and enrich the concept and activity of learning itself, beyond earlier conceptions of learning. Traxler (2013) lists some of these possibilities: contingent learning and teaching, where learners and teachers can react and

respond to their environment and their changing experiences; situated learning, where learning takes place in surroundings that make learning relevant and meaningful; authentic learning, where learning tasks are related to immediate meaningful learning goals; context-aware learning, where learning is informed by the history, surroundings, and environment of learners; augmented reality mobile learning, where learning builds on local context supplemented by an audio or video overlay; personalised learning, where learning is customised for the preferences and abilities of individual learners or groups of learners; learning support, and pastoral, personal, and tutorial support; game-based learning; and assessment techniques aligned to these new mobile affordances.

These all presented as alternatives to the classroom and the school, and perhaps to the teacher and the institution. At a practical level, they represent support for courses, lessons, and programmes that engage with the world outside of institutions, either exploring that world or training students to take their places in it. The mobile learning research community has also demonstrated that it can take learning to individuals, communities, and countries that were previously too remote or sparse, either economically, socially or geographically, for other external educational initiatives to reach. This second category has included projects that address many such issues, including geographical or spatial distance, sparsity, and separation; infrastructural or technical barriers; social, cultural, and economic exclusion; physiological or cognitive differences; privacy and security; down-time and dead-time; and corporate training and performance support (Traxler 2013).

Learners can now benefit from a considerable volume of user-generated content. Some of it, like podcasts, is native to mobiles; some, like Wikipedia, is accessed or developed into new versions for low-end mobile access, and some, like YouTube, is accessed on high-end mobiles. Whatever the format, this content represents a significant transition from learning sourced from teachers, lecturers, and their institutions, and it signals the rise of a different kind of learning community. It also takes the control, agency and power away from the teacher, the school, and the ministry towards the learner, the community, and the wider world.

The recent interest in mobile learning, against the backdrop of its ability to enhance, extend, and enrich learning, including to previously underserved communities, is evident in a spike of events and publications related to this field in the last few years.

In October 2010, in Barcelona, the UNESCO Chair in E-learning held an international seminar that focused on mobiles, learning, and development. At about the same time, Mobiles for Development (a programme of the GSM Association, named for the telecoms standard), which is the trade association for MNOs (mobile network operators), published *mLearning: A Platform for Educational Opportunities at the Base of the Pyramid* (GSM 2010). This gave MNOs, perhaps for the first time, a sense of the business opportunity. In February 2011, the massive World Mobile Congress in Barcelona sponsored the first of its annual awards for learning. In August 2011, USAID convened the first m4Ed4Dev symposium in Washington, DC, and, in early 2012, it launched the mEducation Alliance. In November 2011, the WISE (World Innovation Summit for Education) debate in Qatar focused on mobiles, education, and the hard-to-reach.

In December 2011, in Paris, UNESCO convened its first Mobile Learning Week. These sessions focused, regionally and globally, on mobile learning as it relates to policy as well as teacher development, the latter seen as a crucial place to break into the educational cycle and promote quality Education for All (EFA). In March of 2012, in Washington, CoSN, the Consortium for School Networks, organised another international symposium, drawing together major practitioners and stakeholders. Then, in September 2012, the mEducation Alliance Symposium, entitled Partnering for Scale and Impact, illustrated the growing

emphasis and direction of corporate and agency priorities. In February of 2013, UNESCO held another symposium in Paris, part of its second Mobile Learning Week; it continued to align with wider objectives within the development community, shared with USAID. It focused on three particular EFA goals as they relate to mobile learning and as perceived from within UNESCO. These were improving levels of adult and youth literacy—how mobile technologies can support literacy development and increase reading opportunities (but interestingly, not writing opportunities); improving the quality of education—how mobile technologies can support teachers and their professional development; and lastly achieving gender parity and equality in education—how mobile technologies can support equal access to and achievement in basic education of good quality for all, in particular for women and girls.

We now see shifts in the likely scale, significance, and conception of learning with mobiles as newer players engage with the ideas and the possibilities. The established conceptions and achievements outlined above are likely to be subsumed and transformed as the newer players see mobile technologies as the vehicle for delivering their development objectives to the global South. The emphasis and the priorities will shift towards policy, business models, sustainability, and scale. They will perhaps shift towards notions of learning based on discussion, collaboration, and production and away from other notions of learning based on consumption and content. There is considerable concern that whilst these newer players are attracted to supporting learning with mobiles, their priorities and values differ from those of the older players and that understandably scale, sustainability, and impact now feature much more obviously. In this new ecology of learning with mobiles some forms of mobile learning will now thrive whilst others will perish.

The practice, discussion, and research—in the development, commercial, and academic spheres—must remain open, critical, and self-reflective, so that all actors can fully explore and leverage the opportunities offered by mobile learning, even as the priorities and values surrounding it are challenged.

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