Mobile Learning – A Snapshot of 2008

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Welcome to a special edition of the International Journal of Interactive Mobile Technologies dedicated to contributions from the most recent mLearn conference that took place in October 2008 in Ironbridge UK. The first in the mLearn conference series, at the time entitled the European Workshop on Mobile and Contextual Learning (http://www.eee.bham.ac.uk/mlearn/), took place in 2002 at Birmingham University. Seven years later mLearn returned to Britain, this time to the UNESCO World Heritage site at Ironbridge in Shropshire with a four-day event with delegates coming from most countries in Europe and from every other continent. Between these, the conference visited London, Rome, Cape Town, Banff and Melbourne and mobile learning matured and consolidated (see the reviews by Cobcroft, 2006, and Naismith *et al*, 2004). It now has a professional body, the International Association for Mobile Learning and also has a vibrant on-line community, much of it logging onto the Handheld Learning forum (http://www.handheldlearning.co.uk/) and a critical mass of prestigious international conferences such as IADIS Mobile Learning in Europe, ICML in Jordan, IEEE's WMTE workshop in Asia Pacific and Handheld Learning in Great Britain.

Mobile learning has gained greater clarity about the significant issues (see for example Sharples, 2006, defining the 'big issues') and a more sharply defined research agenda (see for example, Arnedillo-Sánchez *et al*, 2007). There have been ongoing efforts in this period to conceptualise and define mobile learning (for example, Wali *et al*, 2008; Traxler, 2008) and relate it to the theorising of e-learning (for example, Laurillard, 2007). There are also some key emerging working texts (Kukulska-Hulme & Traxler, 2005; Metcalf, 2006; JISC, 2005) and emerging guidelines (see for example Vavoula *et al* 2004). In the UK, the skills and further education sector, the MoLeNET programme supports projects in colleges with to date a total of about £10m.

Perhaps most importantly however, in this period the mobile learning community has demonstrated that it can:

- Take learning to individuals, communities and countries that were previously too remote, socially or geographically, for other educational initiatives.
- Enhance and enrich the concept and activity of learning with situated, authentic and context-aware dimensions.

There are however still the significant challenges of scale, sustainability, inclusion and equity. There is also the challenge of developing the substantial and credible evidence-base to justify investment in further research and development and the challenge of connecting the mobile learning research community with the methods and concerns of the wider mobilities research community (Buscher & Urry, 2009).

The conference themes and submissions addressed many of the challenges currently facing the mobile learning research community. The first theme, that of mobile learning, mobile knowledge and mobile societies embraced current ideas about the relationships between discourse, identity and knowledge and ideas about learning with pervasive, ubiquitous and mobile technologies and also covered the social, individual and cultural aspects of mobile learning. The devices, systems, technology and standards theme looked at technology and devices themselves and at topics of convergence, diversity, frontiers and trends. The mobile learning landscape theme was the focus for innovative projects, programmes and initiatives in work-based, informal, subject-specific and context-aware mobile learning that extend the mobile learning evidence base. Finally, the mobile learning for all theme covering inclusion, assistivity, scalability, embedding, participation, evaluation, evidence, assessment and development and explored mobile learning in the context of broader educational priorities.

The papers selected for this special edition span all these themes. In this last category, "Time to Engage? Texting to Support and Enhance First Year Undergraduate Learning", Jones and Edwards both from the University of Bath address texting, still the most widespread, scalable, sustainable, robust and standardised mobile technology, and almost the default for working with learners who are remote or disadvantaged. Here they discuss their case study investigating how the academic and personal development of first-year students on an undergraduate sports education degree could be supported and enhanced with mobile text communication. The paper is important in providing a linkage across from the literature of educational texting in general into the specific concerns of formal higher education, especially those concerns around the transition into universities for new students. As institutions increasingly buy into centralised texting systems the options discussed here become part of routine student support and management.

"Theory-based Support for Mobile Language Learning: Noticing and Recording" by Kukulska-Hulme and Bull of the Open University and the University of Birmingham, respectively, is a welcome contribution to the literature of language learning, a topic that continues to attract considerable commercial interest but is much under-researched and insufficiently understood. In their words, "There is a large body of research on many aspects of second language learning, but often much of the relevant theory and empirical findings are overlooked by developers of language learning technology support". Their contribution discusses how the second language acquisition literature on *noticing* can be harnessed to provide theory-based support to second language learners on their mobile devices. They describe the traditional use of language learning diaries, then relate this to mobile language learning oppor-

tunities, and consider the benefits of modelling learner knowledge in this context. Lastly, they offer guidelines for designers and developers of mobile language learning software where the aim is to prompt learner reflection, metacognition and noticing. They argue that mobile learning techniques will support language learners in noticing and recording noticed features *on the spot*, to help them develop their second language system; to help language teachers better understand the specific difficulties of individuals or those from a particular language background; and to facilitate data collection by applied linguistics researchers, which can be fed back into educational applications for language learning. The paper is an example of formalism finding an increasing place in mobile learning research and makes a case for a theoretical base for subsequent practical mobile learning developments and interventions.

"The MOBO City: A Mobile Game Package for Technical Language Learning" by Fotouhi-Ghazvini from Qom University in Iran, Earnshaw and Robison, both from the University of Bradford and Excell from Glyndŵr University also addresses language learning and acquisition but from a games perspective, more specifically games in a developing world context. They position game-based learning as a particular form of incidental learning where the learner is engaged in an activity that may not be directly tied to the task at hand, and this aligns games-based learning to other informal mobile learning.

"Pervasive Learning System Based on a Scenario Model Integrating Web Service Retrieval and Orchestration" by Pham-Nguyen, Garlatti from TELECOM- Bretagne in France, Lau from the Multimedia University, Cyberjaya, Malaysia and Barbry and Vantroys from the University of Sciences and Technologies of Lille in France also tackles the possibilities of formalism and also looks at corporate mobile learning. The paper proposes a context-aware model of corporate learning and working scenarios in e-retail environment. This scenario model enables us to select how to achieve activities according to the current situation. They outline the semantic description of web services to enable the selection, composition and execution of web services to achieve objectives specified by learning and working activities. They propose a context-aware and adaptive model for pervasive learning systems that enables the selection of the relevant methods or services to realize activities according to the current situation.

Finally, "Reflections on the Role of Technology in Citywide Collaborative Learning" by Canova Calori and Divitini from the Department of Computer and Information Science in Trondheim, Norway investigate collaborative learning in a city with the support of mobile and wireless technology. They identify and discuss the main roles that technology can play in supporting the performance of shared tasks, social networking, active participation, and the visibility of learning and claim that the full potential of new technology only emerges by supporting learning that comes from exploration, interaction, and serendipity. However they point out that realising this potential raises a number of technical challenges and claim that there is a need to move from applications design to a service oriented infrastructure that eases the development and adaptation of applications for multiple and interleaved learning experiences.

These papers are clearly only a snapshot but one that gives considerable insight into the vigour and diversity of mLearn and mobile learning research globally.

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