

Mobile Law and e-Portfolios – University of Melbourne M-learning Research

Jo: Welcome to the Knowledge Tree everyone, today we're speaking with Elizabeth Hartnell-Young and Peter Jones from the University of Melbourne who are focusing their academic research on m-learning.

Jo: What are your definitions of m-learning?

Elizabeth: I see it as learning anywhere, anytime. M-learning has always been possible, but formal learning has been constrained by educational structures and systems. Talk about m-learning often focuses on devices such as phones and PDAs, or networks and wireless applications. I see these as containers and connectors for people's learning and as the devices become more and more converged (phones can handle video clips, email and so on) I hope the focus will shift back to how people learn in communities supported by technology.

Peter: The University of Melbourne is actively exploring the educational benefits of mobile devices, but it is doing so with a focus on enriching a campus-based learning experience.

Jo: Ok, how and why has your interest in m-learning developed?

Elizabeth: It's due to my background in schools and my recent research into how people use mobile technologies. For nearly ten years I've been involved in digital portfolio development: a means of displaying and reflecting on activities and achievements that can really lead to deep learning. As a result I've become interested in the form of portfolios, such as CD, DVD or web-based, and recently I've started looking at blogging as a related activity.

Peter: My interest in m-learning was brought into focus when the Melbourne Law School relocated to a new purpose-built building at the start of 2002. A key feature of the design was the provision of pervasive networking – there are over 6000 data points and wireless networking throughout the building. This allows students with mobile computing devices to access course material and conduct searches of legal databases *within the classroom*. This expands the depth of the discussion, and consequently, the learning experience for the student.

Jo: So what is the focus of your research project and who's working on it with you? How are you working with partners eg Hewlett Packard (HP) is it?

Elizabeth: I am in the early days of a new project with European partners, including the European Institute for eLearning and Nokia.

Peter: I'm currently involved with a project, which has received generous support from Hewlett Packard via a Global Applied Mobile Technology Solutions Grant. That grant has supplied 26 Tablet PCs and 57 iPaq PDAs. The project is accelerating staff and student understanding of mobile technologies in three professional discipline areas: law, medicine and information systems.

In the Law School I am focusing on classroom use and information resource management with a class of 25 Juris Doctor (JD) students who have been issued with wireless-equipped PDAs and foldable keyboards. In addition to accessing course material, taking notes and searching the Internet, students use the PDAs to store class timetables, exam schedules, assignment due-dates, retrieve departmental RSS news feeds and make voice recordings. We are also using a TabletPC with wireless networking and thin-client software to 'untether' academic staff from the front of seminar rooms.

We have partnered with a Queensland company called GroupPower to test their “Presenter” PocketPC program which allows an instructor’s PowerPoint presentation to be shared to student PDAs over a wireless network and for feedback and questions to be submitted.

Medicine is applying mobile technology to support remote learning in rural health education and facilitating reflective practice. Here Tablet PCs help students to quickly capture and store confidential patient information at the point-of-care as well as deliver just-in-time information on clinical problems. The pen interface also allows students to keep an up-to-date journal of their activities and provides a reference point for follow-up discussions with their instructors as they reflect on their patient interactions.

Information Systems students studying human computer interaction are undertaking formal evaluation of PDAs and Tablet PCs using the Interaction Design Laboratory and in-field settings. The opportunity to use HP Tablet PCs and iPaq PDAs has also permitted postgraduate students working in small project teams to build prototypes of innovative applications of mobile technologies. One example combines intelligent agents, GPS and pen interface technologies to provide tailored navigation-support and access to web services.

Jo: How have you framed your research, what methodology are you using?

Elizabeth: As a qualitative researcher, I’m interested in observing how participants use mobile technologies in the field and having conversations with them about these uses and the products they generate.

Peter: The three groups participating in the HP project are drawn from professional practice domains that embody a wide range of mobile technology usage practices. We undertook preliminary data collection on the demographics of the students and issued a series of surveys to ascertain how student learning is being influenced by the use of mobile technology within the classroom. I plan to produce a matrix of usage patterns and follow up with focus groups and interviews with stakeholders.

Jo: What are hoping to find out?

Peter: The project is concentrating on a variety of students’ learning processes and outcomes including:

- information seeking behaviour and resource discovery management
- self directed learning and time management
- reflective practice in a professional setting
- collaborative group work

Elizabeth: As with many innovations, I find that when people see their own purpose for the technology, they are in a state of readiness for learning.

Jo: What can you see are the possible consequences/outcomes?

Peter: We hope the findings of the HP mobility project will be broadly applicable and assist academic staff across the university understand how they might integrate mobile technologies in ways that have a positive impact on student learning outcomes. The project will inform development of strategies for providing training, purchase recommendations and general support in relation to PDAs and Tablet PCs.

Jo: What is the future of m-learning? How might that impact on current notions of flexible learning?

Peter: Information and communication technologies (ICT) are ubiquitous in higher education. As described above, the University of Melbourne is pursuing the transformation of teaching and learning through the appropriate use of new technologies in a campus-based environment that integrates flexible delivery and advanced ICT. The Strategic Plan of the University acknowledges that the campus experience in future will have to capture all the pedagogical richness of the new teaching and learning technologies and modalities, and that members of a campus-based learning community will have to be just as much at home in cyberspace as are their counterparts in any 'virtual university'.

Jo: Are there any questions you'd like our audience to give you feedback on as part of your research?

Elizabeth: I'm interested in collecting Australian examples of blogging, eportfolio development and the use of mobile technologies to support learning, particularly as I'm involved in organising a conference on this in December 2004.

Jo: Where do we sit in relation to international m-learning work/research?

Elizabeth: Across Europe, the MOBILearn Project is looking at learning in the broad sense, such as providing first aid information through interactive devices. Some of the projects in the Interaction Design Group of the Department of Information Systems are similar, as they support "just-in-time" information provision through mobile devices. In the UK, Stephen Heppell of Ultralab is doing a lot of work with notschool.net where students who have been turned off school are using computers with broadband to take charge of their own learning, and they do a verbal test via a mobile phone at key points in their program.

Peter: The demand from students for flexible and blended learning means there is much interest from institutions in the research results from m-learning trials. Unfortunately, resourcing such initiatives is often difficult in the Australian education environment. For us, the support from Hewlett Packard has been central to allowing Law, Medicine and Information Systems to pursue their research objectives.

Jo: How can teachers become more comfortable with m-learning.... is it something we already do to an extent..most teachers/lecturers have a mobile phone or a PALM don't they?

Peter: Knowing how to use a PDA or mobile phone is a necessary, but insufficient step in applying mobile devices in learning situations. The impact of technology must be well understood for it to be successfully used in a manner that enhances learning for all students. Our research suggests that considerable staff development is required to exploit the learning opportunities afforded by mobile computing devices.

Elizabeth: My research in schools shows that teachers who have the time to play with new technologies and devise appropriate uses to support teaching and learning are enthusiastic about the possibilities. But it's a paradox that many schools ban mobile phones, while encouraging laptop computers!

Jo: Thanks for sharing your innovations with the Knowledge Tree, Peter and Elizabeth. We'll look forward to reading your research.

Useful links

<http://www.dis.unimelb.edu.au/staff/elizabethh/index.html>
http://www.qwiki.info/projects/Europortfolio/ep2004/index_html
<http://www.mobilearn.org/>
<http://www.notschool.net/>
<http://www.nokia.com/nokia/0,1522,,00.html?orig=/lifeblog>
http://uninews.unimelb.edu.au/articleid_927.html