Making the most of mobile in learning

Tracey Dodman and Terese Bird
University of Leicester
Learning & Teaching Conference - 10 January 2013

Photo by sc_association_school_librarians on Flickr
What will we talk about?

- Overview of mobile learning
- War Zones – one-iPad-per-distance-Criminology-Masters-student
- Mummies – Windows tablets in Museum Studies
- Pompeii – Archaeology field research with iPads
- University of Leeds School of Medicine – iPhones
- Suggestions and tips
Why mobile learning?

“...we have to recognise that mobile, personal, and wireless devices are now radically transforming societal notions of discourse and knowledge, and are responsible for new forms of art, employment, language, commerce, deprivation, and crime, as well as learning.” (Traxler, 2009)
Overview: History of mobile devices

Key Devices and years:

- Psion Organiser: 1984
- Microsoft Tablet PC: 2000
- iPod: 2001
- iPhone, Kindle: 2007
- iPad: 2010

Mobile device timeline:

First instance of mobile learning: Duke University issues iPods to all incoming freshmen in 2004; early version of iTunes U is created by Apple (Joly, 2005)
iPad: Gamechanger

Photo by Shemp65 on Flickr
Overview

1. Institution-supplied
   1. One iPad per student (McFayden 2010)
   2. For lab or fieldwork
   3. E-readers (Nie et al 2010)
   4. Clickers

2. Student-owned or BYOD
   1. Lab or fieldwork
   2. Twitter
   3. In-class

Terese explains DUCKLING e-readers http://www.le.ac.uk/duckling
Overview

Main tangible benefits of mobile learning (JISC, 2011)

1. Personal, private, and familiar
2. Pervasive and ubiquitous
3. Portable – enabling learning anywhere, anytime
4. Immediate capture of data and learning processes – camera, video, sound, text input
5. Promotes active learning

Photo by Newandalice on Flickr
Mummies, War Zones, and Pompeii:
Mobile learning case studies

Photo courtesy of pyramidtextsonline on Flickr
War Zones:
MSc in Security, Conflict and International Development, Department of Criminology
War Zones: iPads

- Decision to develop new DL p/g course: Security, Conflict and International Development (SCID)
- Recognised need for those working in this subject area to have an academic qualification
- Target student base:
  - United Nations, NGOs, Voluntary Organisations – mainly in post-conflict societies/countries
- Typically, these students will spend long periods of time travelling, in refugee sites, travelling to meetings, on missions, etc
War Zones: iPads

• Need for a portable device that would contain course material

• Course material that students need to access includes:
  – Academic material
  – Key documents in the field of policy development
  – Audio and video materials
War Zones: iPads

- Attended Carpe Diem workshop
- Considered how a dynamic course might look (considerable change from existing p/g DL material)
- Used learning outcomes to identify additional material required to supplement the academic written material
War Zones: iPads

- Blackboard is the main point of access containing all course materials as well as access to discussion boards and e-tivities
- Students have to submit assignments via Blackboard
- Device required for when students are travelling, working in areas without internet access

Photo by Oxfam International on Flickr
Survey of current students (Blackboard, N=7)

How often do you use the Course App to access course material?

Blue: A couple of times weekly

Red: Every day
Survey of current students (Blackboard, N=7)

For how long do you use the Course App each time?

- Blue: More than 60 minutes
- Red: 30-60 minutes
Given these three choices of having the course material in print, course app, and Blackboard, please rank your preferences.

Red:
Print,
Course App,
Blackboard

Blue:
Course App,
Blackboard Site,
Print
• “The course App is easily accessed, it is pre-structured and organised. I find it a logical progression and a great guide to complete a unit by using the course app. If it was not available I would use the blackboard as opposed to print, again as it easier to access view. I travel quite a lot for work making the use of Ipad ideal”

• “I much prefer reading from paper than from computers. app is no.2 because it is so immediate and easy to use.”
• “The Application is the best to use. Except for the need for wifi or internet connection: PLEASE download everything to the app: we are not allowed to have wifi and it is very difficult to access youtube etc. in here.”
What percentage of your overall study time do you spend on Blackboard and on the Course App?

Red is Course App, Blue is Blackboard

1: 65/35

2: 60/40

3: 80/20

1: 50/50
How has the iPad and Course App changed the way you study?

“Firstly I am more motivated, as it is structured and organised. I am getting through more than I would if I was solely given a recommended reading list.”

“It has enabled me to read the material without carrying a bundle of books and is very good for studying at work during free time. “

“Mind-mapping app”
How has the iPad and Course App changed the way you study?

“More use of multimedia in studying. Use of other methods such as mind map and good reader type apps. Ability to tailor to your preferred study method. Everything in one place (ie no piles of paper).”

“I love the fact it is mobile, as I am constantly on the move. Travelling with books would be unrealistic. “
War Zones: iPads - negatives

- E-books on Amazon somewhat problematic – some countries cannot get Amazon
- 2 students said they would like to link to assignments through the iPad
- No Flash on iPad
Places

http://www.le.ac.uk/places-mlearn

Places

Places is a JISC-funded Transformations Programme project, evaluating the enhanced student experience afforded by the use of iPods in programmes at the University of Leicester, most notably a distance learning masters programme offered by Criminology. Meeting remote students’ needs, offering them an excellent experience through innovations in technology-enhanced learning, is a recognised need of higher education in the 21st century. A well-designed, innovative curriculum with creative opportunities for interaction is a vital element for students who require mobile access to high quality academic programmes.

Photo courtesy of Shemp65 on Flickr

Context: The Department of Criminology at UoL is a leading distance learning provider in the discipline. The Department’s new MSc in Security, Conflict and International Development was launched in March 2012. As a central component for this programme, to enhance student experience, the Department delivers to each remote learner an iPad.
Pompeii:

**Porta Stabia project**
(director Steven Ellis, University of Cincinnati)

**Quadriporticus Project**
(director Eric Poehler, Umass, and Steven Ellis, University of Cincinnati)

Photo courtesy of Nick Ray
Architectural analysis, survey, 3D modelling

(Ray, 2012)
Pompeii iPads - negatives

- Need glare protectors
- Need hard case (Hard Candy)
- Overheating (just put iPad in shade for 5 minutes)
- Very detailed work, touching screen (need cycling gloves)
Old Wall-Drawing Method

- Time to set-up
- Sagging tapes
- Problem of height
- Often a two-person job
- Requires post season inking and/or digitising

(Ray, 2012)
Pompeii iPads

- One-iPad-per-field-researcher
- Filemaker Go to collect data
- Sync twice daily
- Photos and iDraw – take photos, draw layers upon
- Goodreader – paperless – no lost papers
- 371% efficiency increase in work completed (Ray, 2012)

*Special thanks to John Wallrodt for implementing iPads*
Mummies: Windows tablets at Museum Studies

Photo by University of Leicester
Mummies: Windows tablets at Museum Studies

- Windows tablets
- Custom ‘app’ – simply a clever Powerpoint show
- Info from and video of British Museum staff
- Field trip and group work
- Collect photos and impressions on the day
- Report emailed in by 10am next morning
- Groups meet for feedback/discussion
Mummies: Windows tablets at Museum Studies

“It seemed ideal to have short, taped discussions about ethical issues by Museum staff – then students could bring the tablets with them, hear what the staff had to say, and analyse and engage in the evidence that they saw.”

“The students didn’t blink when we gave the tablets out. ...it was unremarkable for them. It was completely normal.” (University of Leicester, 2011)
Mummies:
Windows tablets - negative points

- Noisy in the museum gallery
- Battery life
- Issues with amount, size of text in homemade ‘app’
- Next time will put some material onto VLE
University of Leeds School of Medicine: iPhones for all 4\textsuperscript{th} and 5\textsuperscript{th} year students

Leeds School of Medicine changes learning culture with work-based iPhone devices

Apple Education website (Apple, 2011)
University of Leeds School of Medicine: iPhones for all 4\textsuperscript{th} and 5\textsuperscript{th} year students

- Pharmacology and other reference books
- Sterile for clinical use
- Immediate notes
- Clinicians are working more closely with students and tutors

Apple Education website (Apple, 2011)
University of Leeds School of Medicine

iPhones

• Student quote: “The things you can do and the speed you can do them makes it fantastic as a tool – whether I need to get onto the Internet to look things up, use the books we have pre-loaded, or email my tutor. It’s made me realise how easy it was to waste learning opportunities working in-practice in the past. I can now capture in my e-portfolio what I need to learn more about. That might be in the form of assessments, or even little notes I send to myself. It really helps with revising for exams too.”
University of Leeds School of Medicine

iPhones

- Staff quote: “It also requires students to take a strong lead in their own learning process, not wait to be told what they need to know. “More and more, medical education understands students need to recognise how and when to say: ‘I need help with this’”, Dr Fuller says. “We need to re-shape what medical learning is all about, how and where to find new knowledge and apply this to patients. The iPhone is the start of a long process, but it’s an important start.”
Suggestions to get started

- LeicesterUni app
- Blackboard Mobile Learn (no smart links)
- Handheld Learning group [http://tinyurl/b7va4so](http://tinyurl/b7va4so)
- Consider students’ own mobile device use – Twitter for sharing reading and insights, questions (Wiley, 2012)
- Students’ own or institutional devices for fieldwork
What devices? (Paypers, 2012)

- 51% own smartphones
- 36% Android
- 31% iPhone
- 15% Blackberry
What devices for medical students? (Payne, 2012)

- iPhones 3x more common than Android
- Among junior doctors, iPhones 4x more common

Are Physicians Using Medical Smartphone Apps?

The number and types of medical apps for physicians and other medical providers is rapidly increasing. Smartphone apps (i.e. iPhone and Android apps) have the potential to allow physicians real time access to medical records, treatment guidelines and medical reference information.

As these apps increase in number and type, it will be important to understand the facilitators and barriers to implementation in the medical setting. Additionally, research will be needed to document whether physician apps actually improve the quality of care. What seems in theory to be important, may fall short in actual clinical practice settings.

A recent survey of medical student and junior physician use of smartphone apps in the UK has recently been published in the journal BioMed Central. Karl Frederick Braekken Payne and colleagues surveyed 257 medical students and 131 junior physicians about their ownership and use of smartphones and smartphone apps.

Seventy nine percent of the UK medical students surveyed owned a smartphone with the iPhone being the most common type (3:1 over the Android smartphone). Among junior doctors, 75% owned a smart phone again with the iPhone owning a significant 4:1 advantage. This will be documented in the study:
What devices? University of Leicester

• Since launch of LeicesterUni app, 3000 downloads
• 2500 of these downloads have been either iPhone or iPad
• Remaining 500 have been Android
References and Thanks


THE Awards Winner