Meanings Emerging in the Practice of Wireless Technologies: Findings from Two Academic Focus Groups at the University of Southern Queensland

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Paper presented at the 3rd international pedagogies and learning conference, University of Southern Queensland, Springfield, 28 September 2007
Abstract

A key challenge confronting contemporary universities is how most appropriately to harness the opportunities for teaching and learning afforded by new information and communication technologies (ICTs), including wireless technologies such as handheld wireless devices, smart mobile telephones, personal digital assistants and short message services. While much has been promised about such technologies revolutionising how, when and where education will take place, this pedagogical potential will not be realised unless and until they become instantiated in the practice of, and meanings emerge from that practice that connect with the lifeworlds of, learners and educators alike.
Abstract (Continued)

This paper presents selected findings from two focus groups conducted in late 2006 with academic staff members of two faculties at the University of Southern Queensland (USQ), Australia. The research was part of a broader study interrogating student and staff experiences and expectations of the social and educational uses of mobile technologies and distilling implications for possible teaching and learning policy-making at the university.
Overview of presentation

• Conceptual and methodological resources
• Focus group one
• Focus group two
• Possible implications
Conceptual and Methodological Resources

- Part of broader project (Danaher, Gururajan & Hafeez-Baig, under review; Hafeez-Baig & Danaher, 2007, under review) researching wireless technologies and learning and teaching at USQ

- Contemporary literature on such technologies contains both enthusiastic advocates and healthy sceptics (e.g., Sharples [2002] referred to wireless technologies as potentially “disruptive devices” [p. 504])
Conceptual and Methodological Resources (Continued)

• Claimed advantages of wireless technologies for learning:
  - independence from location and time
  - personalised adaptive learning
  - changes in the culture of learning
  - integration into the course of work
  - mobile learning in the context of integrated, blended learning
  - cost reduction (Grohmann, Hofer & Martin, 2005)
Conceptual and Methodological Resources (Continued)

- Claimed disadvantages of wireless technologies for learning:
  - lack of automatic competence
  - lack of social contact
  - lack of privacy
  - lack of profitability
  - lack of acceptance
  - lack of standards (Grohmann, Hofer, & Martin, 2005)
Increasing focus on social dimension of wireless technologies:
- Looi’s (2005) reference to “enabling more natural and coherent conversations, facilitating conversations with a learning nature, … and providing chat participants with a social sense of the context or the dynamic of the conversation flow” (p. 322)
Conceptual and Methodological Resources (Continued)

• Increasing focus on social dimension of wireless technologies:
  - “Researchers and designers have to understand social practices in order to explore and develop technological tools for such collaboration and communication” (Carlen & Jobring, 2005, p. 272)
Conceptual and Methodological Resources (Continued)

• Research design centred on qualitative, interpretivist case study directed at analysing participants’ understandings of wireless technologies linked with their experiences of and aspirations for pedagogies and learning.

• Three focus groups at USQ to date (one each of academics in Faculties of Business and Education and one with students).

• Data analysis focused on textual and thematic interrogation of transcripts and NVivo software to identify clusters of themes.
Focus Group One

- Faculty of Business academics September 2006
- Varied examples of individual uses of wireless technologies:
  - “I use my PDA to remind me of where I have to be and when I have to be there – as a diary – for data storage – all the things that I can’t remember, addresses maybe, details.”
  - “I use my PDA – I travel quite a lot so very portable – so wherever I go I can check my emails. I don’t use it very much round the uni. I don’t use it for teaching purposes other than people can contact me while I am off-campus.”
  - One other wireless technology thing that the uni is starting to embrace is broadband wireless – CDMA.”
Focus Group One (Continued)

• Lots of ideas for potential educational applications of wireless technologies:
  - “We could give access to the students … heaps we could tap into – to be able to pick up your material wherever you are. You go into lectures, could log onto a website –.”
  - “You could be in a lecture and refer to something and you could show them instead of putting the website on the board and say, ‘After the lecture go and have a look’ – sort of a waste of time. 1) They are going to write it down incorrectly and they are not going to find it. 2) They’re going to move onto the next thing and forget about it.”
FocusGroup One (Continued)

• Lively discussion of relevant technological issues:
  - “I have an evaluation kit – wireless with pictures – to come in about two or three months and we are starting to look at that but there are a whole range of other difficulties with that. Potentially we are looking at upgrading our PABX system within the next three years as well, so that would be the time frame for changing the technology, and what role wireless plays in that we don’t know.”
  - “If we upgrade the network next year that will get us up to the stage where we would be right now, but wireless technology is evolving pretty rapidly, particularly in respect of building companies. Introducing wireless into buildings is a real issue. Buildings like this have concrete pillars impenetrable. Some buildings have insulation where wireless is going to get a good coverage.”
Focus Group Two

• Faculty of Education five academics October 2006

Verified and Refined Themes Emerging from the Focus Group Discussion:

• Accessibility and availability of resources
• Convenience and richness of learning resources
• Time efficiency and productivity
• Quality of teaching and learning
• Security and reliability
• Financial pressure on students
• Hardware features and characteristics
Focus Group Two (Continued)

Verified and Refined Themes Emerging from the Focus Group Discussion (Continued)

- Equity and distance education
- Usefulness of the devices
- Availability and usefulness of the applications
- Human interactions and the student–teacher relationship
- Training and knowhow
- Pleasure and learning
- Flexibility and customisation
Focus Group Two (Continued)

Verified and Refined Themes Emerging from the Focus Group Discussion (Continued)

• Standardisation, policies and procedures
• User needs and requirements
• Issues relating to class size
• Quality of information
• Limitations of infrastructure and resources
• Technology’s lack of maturity
• Usefulness for scheduler/reminder functions
Focus Group Two (Continued)

Positive Effect on Intention to Use

• Accessibility and availability of resources
• Convenience and richness of learning resources
• Time efficiency and productivity
• Quality of teaching and learning
• Usefulness of the devices
• Availability and usefulness of the applications
• Human interactions and the student–teacher relationship
FocusGroup Two (Continued)

Positive Effect on Intention to Use (Continued)

- Training and knowhow
- Pleasure and learning
- Flexibility and customisation
- Standardisation, policies and procedures
- User needs and requirements
- Quality of information
- Usefulness for scheduler/reminder functions
Focus Group Two (Continued)

Negative Effect on Intention to Use

- Security and reliability
- Hardware features and characteristics
- Equity and distance education
- Issues relating to class size
- Limitations of infrastructure and resources
- Technology’s lack of maturity
- Financial pressure on students
- Usefulness of the devices
- Availability and usefulness of the applications
Possible Implications

On the one hand, the findings demonstrate multiple and sometimes competing understandings of the possible utility of mobile technologies in current and future educational practice at USQ:

• Differences within and across the two focus groups

• Areas of ambivalence and uncertainty (e.g., in relation to access and social justice, digital divides and generation gaps)

• Perceived gap between individual enthusiasm and institutional inertia
Possible Implications (Continued)

On the other hand, there is also evidence of an emerging consensus about the requirements if such practice is to generate transformations in pedagogies and learning across disciplines and faculties:

• Perceived need for alignment between institutional and individual understandings and aspirations
• Perceived need for alignment between technological and educational possibilities and constraints
• Perceived need for wireless technologies to be located and instantiated within current and prospective contexts of practice-based meaning-making attached to specific disciplines, paradigms and methodologies
Possible Implications (Continued)

Thus m-learning, e-learning and multi-modalities can function as the sites of ongoing regeneration of educational policy, practice and meaning-making if those requirements are accepted and enacted:

• Wireless technologies need to be practised and to become part of the repertoire of learning and teaching strategies and skills of students and academics

• Meanings need to be made – designed, enacted, reflected upon and modified – in relation to those technologies in situ

• The two academic focus groups demonstrated some of the problems and possibilities in that performance of practice and that making of meanings
References


References (Continued)


References (Continued)

Thankyou for participating!

• Meow!