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

P.A. Danaher and **Abdul Hafeez -Baig**

Faculty of Education/Centre for Research in Transformative Pedagogies and Faculty of Business, University of Southern Queensland, Australia

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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)

Thispaper presentsselected findingsfrom two focusgroups conductedin late2006 with academicstaff membersof twofaculties atthe Universityof SouthernQueensland (USQ), Australia.The researchwas partof abroader studyinterrogating studentand staffexperiences andexpectations ofthe socialand educational usesof mobiletechnologies anddistilling implicationsfor possibleteaching andlearning policy-makingat theuniversity .

Overview of presentation

- Conceptual and methodological resources
- Focus group one
- Focus group two
- Possible implications

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Conceptualand MethodologicalResources

- Partof broaderproject (Danaher,Gururajan & Hafeez-Baig,under review;Hafeez -Baig& Danaher,2007, underreview) researching wirelesstechnologies andlearning and teachingat USQ

- Contemporaryliterature onsuch technologies containsboth enthusiasticadvocates and healthysceptics (e.g.,Sharples [2002]referred towireless technologiesas potentially "disruptivedevices " [p.504])

Conceptualand MethodologicalResources (Continued)

- Claimedadvantages ofwireless technologiesfor learning:
    - independencefrom locationand time
    - personalisedadaptive learning
    - changesin theculture oflearning
    - integrationinto thecourse ofwork
    - mobilelearning inthe contextof integrated,blended learning
    - costreduction (Grohmann,Hofer & Martin,2005)

Conceptualand MethodologicalResources (Continued)

- Claimeddisadvantages ofwireless technologiesfor learning:
  - lackof automaticcompetence
  - lackof socialcontact
  - lackof privacy
  - lackof profitability
  - lackof acceptance
  - lackof standards(Grohmann, Hofer& Martin,2005)

Conceptualand MethodologicalResources (Continued)

- Increasingfocus onsocial dimensionof wirelesstechnologies:

  -   Looi's(2005) referenceto "enabling morenatural andcoherent conversations, facilitatingconversations witha learning nature,…andproviding chatparticipants witha socialsense ofthe contextor the dynamicsof theconversation flow" (p. 322)

Conceptualand MethodologicalResources (Continued)

- Increasingfocus onsocial dimension ofwireless technologies:

  - "Researchersand designershave to understandsocial practicesin orderto exploreand developtechnological toolsfor suchcollaboration 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

FocusGroup 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."

FocusGroup One(Continued)

- Lots of ideas for potentialeducational applicationsof wireless technologies:

  -    "We could give access to thestudents …heaps we could tap into – to be able to pick up your material wherever you are. You go intolectures, could log onto a website – ."

  -    "You could be in a lectureand refer to something and you could show theminstead of puttingthe website on the board and say, 'Afterthe lecturego and have a look' – sort of a waste of time.1) They are going to write itdow n incorrectlyand they are not goingto find it.2) They're going to moveonto 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."

FocusGroup Two

- Faculty of Education fiveac ademics October 2006

Verified andRefined ThemesEme rgingfro m the Focus GroupD iscussion:

- Accessibility and availability of resources
- Convenience and richness of learning resources
- Time efficiency and productivity
- Quality of teaching and learning
- Security and reliability
- Financial pressureo n students
- Hardware features and characteristics

FocusGroup Two(Continued)

Verifiedand RefinedThemes Emergingfrom theFocus GroupDiscussion (Continued)

- Equityand distanceeducation

- Usefulnessof thedevices

- Availabilityand usefulnessof theapplications

- Humaninteractions andthe student–teacher relationship

- Trainingand knowhow

- Pleasureand learning

- Flexibilityand customisation

FocusGroup Two(Continued)

Verifiedand RefinedThemes Emergingfrom theFocus GroupDiscussion (Continued)

- Standardisation,policies andprocedures

- Userneeds andrequirements

- Issuesrelating toclass size

- Qualityof information

- Limitationsof infrastructureand resources

- Technology'slack ofmaturity

- Usefulnessfor scheduler/reminderfunctions

FocusGroup Two(Continued)

PositiveEffect onIntention toUse

- Accessibilityand availabilityof resources
- Convenienceand richnessof learningresources
- Timeefficiency andproductivity
- Qualityof teachingand learning
- Usefulnessof thedevices
- Availabilityand usefulnessof theapplications
- Humaninteractions andthe student–teacher relationship

FocusGroup Two(Continued)

PositiveEffect onIntention toUse (Continued)

- Trainingand knowhow

- Pleasureand learning

- Flexibilityand customisation

- Standardisation,policies andprocedures

- Userneeds andrequirements

- Qualityof information

- Usefulnessfor scheduler/reminderfunctions

FocusGroup 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

PossibleImplications

Onthe onehand, thefindings demonstrate multiple andsometim escompeti ngunderstandings ofthe possibleuti lityof mobiletechnol ogiesin current andfutur eeducational practiceat USQ:

- Differences withinand acrossthe twofocus groups

- Areasof ambivalenceand uncertainty(e .g.,in relation toaccess andsocial justice,digit al dividesand generationgaps)

- Perceived gapbetween individualenthusia smand institutional inertia

PossibleImplications (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

PossibleImplications (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

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Thankyou forparticipating!

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