Wireless Technology: Innovative Classroom Uses
Notes from the Current Issues Roundtable at EDUCAUSE 2001

Moderators:
Paul Bowers, Director of Teaching and Learning with Technology
Ken Clipperton, Managing Director, University Information Services, Buena Vista University

Wireless technology is quickly gaining a foothold on many campuses as a means to achieve mobility and true anywhere, anytime access. But how are wireless initiatives affecting not just the classroom environment and technology access, but also the actual activities of teaching and learning? What kind of impact on learning does wireless technology help achieve? What interesting and innovative strategies and practices are faculty exploring or developing in wireless environments? What goals for changes in the classroom have campuses deploying wireless technology articulated? How will we know how well these goals will be achieved? We will discuss examples, hopes, fears, and experience from your wireless technology initiative in an effort to bring teaching and learning in the wireless environment into sharper focus.

AGENDA:
Roundtable Goals
- Identify issues
- Raise questions
- Offer and share strategies and solutions
- Identify potential activities and initiatives

The following list begins to identify key issues related to teaching and learning in a wireless computing environment.

How would you prioritize them?
- 17 Best practices and innovative strategies
  - Duke asking students not to use computers in classes
  - Using wireless to solve specific problems – bring it in and use it when necessary
  - Maybe use tablet computers so the screen isn’t a barrier
  - Issue: configuration of a typical classroom (arrangement and furnishings)
  - Innovation: feedback
    - voting, interactive response units,
    - Blackboard assessments as instant response display – benefit: every student participates, sees where they are, anonymous
    - Java applet: Peaks of enlightenment, Boredom city
    - Whisper application to ask the TA a question
    - Faculty do assessments of student work on the fly
    - K-12 space: Mindsurf networks, tools and monitoring, disabling, feedback, etc.
    - Journalism: See how newspapers around the globe cover a story
Jim: AAHE 7 Principles of Effective Instruction as guide to integration of technology
Data analysis of rocket launches because wireless access in the parking lot

Many teaching and learning impacts occur OUTSIDE the classroom
Using chat in interdisciplinary course (rhetoric, environmental biologist team-taught course on environmental affairs.) Debate/role playing. NOW with real-time chat, capture it and put the content up on the screen for analysis. Another step: students used the same technology outside of class.
Can use chat as a prequel to prime the pump for a classroom discussion
Work with the faculty who WANT to try something

- 13 Teaching and learning tools for the wireless environment
- 11 Faculty development and support strategies
  - How do we get faculty to think about effective/active learning strategies instead of technology
    - Highlight 7 Principles of Good Practice and ask people to think about how to use technology to accomplish those
    - You can have a class without people necessarily being together in place (or perhaps time)
    - Acknowledge that we can’t predict all applications
    - Encourage/give faculty and opportunity to think about the possibilities
    - Peer exchange of ideas/feedback loop
    - Faculty entrepreneurship and institutional initiatives
      - Start with either one, but include the other
  - Tech skills
  - Tech integration into learning skills
  - Classroom management
- 6 Required vs. voluntary policy issues (access models)
- 5 Information literacy and technology proficiency
- 3 Assessing the impact on teaching and learning
- 2 Establishing/articulating goals for change
- 1 Student classroom behavior
  - Establishing standards
    - One participant mentioned a four-tier specification of expectations for computer usage in a class. I think it may have been Don Welch.
- 1 Student development and support strategies
- 0 Institutional initiatives

What about wireless when not everyone has it? What good does it do then?
Cyndy: Portable wireless labs

Places doing wireless PDA’s?
  Wake Forest University
  Univ. of Minnesota Mankato, Duluth (biggest issue was graphics)
  WestPoint

Is there research on access models? What schools require computers for all students?
  See [http://www.educause.edu/issues/stucomp.html](http://www.educause.edu/issues/stucomp.html)

Are we driving students to shallow knowledge structures? Cognitive models offer cautions about current learning management systems. There was an EDUCAUSE presentation on this topic. The published subject commented on how the current LMS’s don’t provide much of what we need to facilitate learning.

**Continuing the conversation:**
When asked about continuing the conversation via a listserv, there was near unanimous agreement. Paul Bowers will look into either getting this going as an EDUCAUSE listserv or hosting it at BVU. Paul Bowers is willing to moderate it. As with the conversation in this session, the listserv would probably cover not just innovative classroom uses of wireless technology, but the broader subject of the challenges and opportunities of teaching and learning in a wireless computing environment. It will also be a place to explore potential activities and initiatives.

**Resources:**
- Tech Trends in Education: Wireless Networking
  [www.montclair.edu/crc/workshops.html](http://www.montclair.edu/crc/workshops.html)
- The BVU TLTC archive of presentations includes some presentations dealing with this subject. There is also a 5:43 minute video Paul Bowers produced for the Ready2Net teleconference series that touches on these subjects.
  [http://tltc.bvu.edu/ebvyou](http://tltc.bvu.edu/ebvyou)