

**Information Technology Council**  
***Subcommittee on Academic Technology***

**INSTRUCTIONAL TECHNOLOGY CONFERENCE**  
**The Scholarship of Teaching & Learning:**  
**Technology & Reflective Practice**

**April 5, 2007**  
**Sturbridge Host Hotel**  
**Sturbridge, Massachusetts**

**SESSION ABSTRACTS**

# The Scholarship of Teaching & Learning: Technology & Reflective Practice

April 5, 2007

Sturbridge Host Hotel

---

## Session Abstracts

---

**CS11 (Moll):** iJava is a web-based interactive textbook for elementary instruction in the programming language Java. The book includes numerous embedded OWL problems, most of which involve programming. This feature makes iJava a superb learning-by-doing educational tool.

**CS12 (Elbirt):** Through the use of tablet PCs equipped with barcode scanners, nursing students are gaining clinical experience accessing and modifying patient medical records. These students are also being exposed to state-of-the-art mobile technologies that employ security mechanisms to assist them in making well informed treatment decisions in a controlled laboratory environment.

**CS13 (Dean, Gross):** This demonstration focuses on implementation of OWL homework modules in current use in TH100: Introduction to Theater at the UMass Amherst campus in Spring 2007. These include Shakespeare's Globe Theater, plot structure of Shakespeare's Tempest, on-line quiz modules, video capture instructional units, and an interactive OWL theater staging unit.

**CS14 (Zinn):** Blog software allows faculty to easily create a public site for a course that includes announcements, basic course information and simple comments areas. UMass Amherst is introducing a blog service this semester in a limited beta release. This session will include a demonstration of this new service and a few examples of how a blog can be used in place of more conventional HTML-based course sites.

**CS15 (Auerbach):** This presentation will demonstrate the advantages of incorporating a new technology into the aural skills classroom, a music-and dance-based video game entitled Dance Dance Revolution (DDR). It will demonstrate the many pedagogical applications of DDR to aural skills. Among the many benefits it provides are 1. enhancing sight-reading ability 2. teaching and drilling complex rhythms and 3. facilitating dictation of popular music. This past fall at UMass, Amherst, sophomore music majors enrolled in aural skills represented the first known population of students to have their rhythmic training administered via supervised practice with DDR.

**CS16 (White):** Many educators are using Personal Response Systems in their lecture courses. There are many different PRS systems and many ways that they can be used. At this Special Interest Group, participants (both users and non-users) will share their experiences with PRS systems with the aim of improving our practice.

**CS17 (Billings, Enghagen, Wilcox):** Open access journals and institutional repositories are among the newest innovations available to educators and researchers by virtue of advances in information technologies. This presentation will provide an overview of open access journals and institutional repositories. In addition, it will examine some of the opportunities and challenges they pose.

**CS18 (Motiwalla):** Mobile learning (or m-learning) is still in its infancy and in an embryonic stage despite advances in mobile services. M-Learning combines individualized (or personal) education with anytime and anywhere learning. With a mobile phone, the relationship between the device and its owner becomes one-to-one, always on, always there, location aware, and personalized. This provides several benefits for e-learning environment like allowing students and instructors to utilize their spare time while traveling in a train or bus to finish their homework or lesson preparation.

**CS21 (Carrera, Jahn, Langer, Riley):** Electronic portfolios (eportfolios) are a powerful assessment tool, as they make student learning visible to both students and faculty. Because learning takes place both inside and outside the classroom, we recognize that learning occurs at different moments and formats for individual students. Eportfolios enable students and faculty to reflect upon those moments and formats, while also contributing to the development of a record of student learning outcomes and to departmental assessment of how students accomplish the learning outcomes of their major. This panel summarizes the preliminary results, including our successes, challenges and failures, of UMass Dartmouth and UMass Boston's eportfolio initiatives.

**CS22a (Fisher, Koren):** This qualitative study explored the experience of nursing students and faculty using PDAs in clinical rotation. The study supports the implications of the use of PDAs as a readily available information resource enhancing clinical critical thinking skills; affecting professional image, communication skills; and quality of care.

# The Scholarship of Teaching & Learning: Technology & Reflective Practice

April 5, 2007

Sturbridge Host Hotel

---

## Session Abstracts

---

**CS22b: (Callahan, Healey-Walsh, Kafel, Scollin):** Over a two year period the Libraries at UMass Boston and Lowell made PDAs with medical/nursing databases available for nursing faculty and students use during clinicals. This presentation will discuss the similarities and differences between the campus programs, and present data from surveys administered at the end of each clinical.

**CS23 (Mraz, Simone):** This presentation furnishes a WebCT content module making accessible important audio-visual materials to students of Spanish 101, 102, 201. The unique advantage of using the WebCT content model is that it provides the instructor with a paperless repository of student performance on linguistic tasks of reading, writing, and listening, and viewing activities while providing them with authentic cultural materials as the context for these activities.

**CS24 (Cywin):** Visual Resource Collection, known as the slide library, is transforming its resources and services to digital. Allison J. Cywin, Visual Resource Curator, will discuss the transformation to digital, best practices for scanning and maintaining a digital multimedia collection and current and future initiatives underway to provide digital content to faculty and students on campus and at home.

**CS25a (Bergandy, Hall):** This presentation outlines both the vision for and the current work of the authors for adapting and using Unified Modeling Language (UML) in K-12. UML, a proven technology in the field of software engineering, can increase student learning in K-12 through enhancing students' analytical and problem-solving abilities.

**CS25b (Xu):** Computer system courses lie at the core of undergraduate Computer Science curricula and are essential for understanding modern systems. In this talk, we present RobotStudio — a universal IDE for computer system courses. Targeting educational robots, RobotStudio can serve as common infrastructure to teach system subjects or develop student projects.

**CS26 (Davidson, Donahoe, Penna, Siccama):** This presentation will demonstrate ways UMass-Lowell faculty, staff, and graduate students have used (or could use) QR software to support scholarship, program evaluation, or higher education accreditation tasks. NVivo 7 organizes and stores textual and visual data and exponentially increases access to this data, providing a great depth and breadth of analysis capabilities. UML, through activities of the cross-campus Qualitative Research Network (QRN), has developed considerable strength in this tool.

**CS27 (Adrion, Dickson, Hanson):** We describe jMANIC, an open-source, cross-platform multimedia delivery system, and an associated automatic classroom capture system. Our automatic content creation system contains rich media content creation time and costs while requiring little or no advance preparation, e.g., software installation or training. We describe our progress and the challenges that remain.

**CS28 (Montrie, Rainer, Shuldman):** The UMass Lowell Home Movie Archive is a digital collection of hundreds of hours of amateur film footage dating to the 1920s. This session presents an overview of the archive and explores how the collection is being integrated into several history and graduate education courses by way of student-produced video essay projects.

**CS31 (Champagne):** This presentation will demonstrate the use of the TaskStream e-portfolio system in the field of Health Education. Students' e-portfolios use a competency-based framework espoused by the profession. This organization of students' work allows for the evaluation of student progress and achievement both on the individual and programmatic levels.

**CS32 (Gallagher, Gray):** This presentation will show how to choose, organize, and preserve selections from public domain digital collections, as well as UMass library databases, to create multimedia resources for academic presentations, classroom teaching, online instruction, and public service.

**CS33 (Stefan, Stefan):** At a time when students are exposed to thousands of PowerPoint slides, the skilful use of tablet PCs adds a more personalized and effective touch to presentations that actively engage students and facilitate the retention of information. The authors present their three-year experience with this technology at UMass Medical School.

# The Scholarship of Teaching & Learning: Technology & Reflective Practice

April 5, 2007

Sturbridge Host Hotel

## Session Abstracts

---

---

**CS34 (Carter, Tello):** An online course management system, such as WebCT Vista, provides a number of tools which can assist academic programs in collecting and reporting program-level assessment data. This presentation discusses a project which uses WebCT in web-enhanced courses to facilitate the integration of program-level learning outcomes into both UMass Lowell's College of Management core curriculum and the University's General Education program.

**CS35 (McMahon):** A variety of Web 2.0 applications from flickr to Wikis can be combined to create seamless content that engages students and encourages active learning. This moderated roundtable made up of experienced instructional designers will introduce the concept of Mash-ups and demonstrate how they are created and incorporated into a BLS/WEBCT courses. It also will provide an opportunity to share and discuss ideas for creating educational Mash-ups with WEB 2.0 tools that engage students and encourage active learning.

**CS36 (Sindelar, Yahn):** How do you get students to talk about your course outside of class? What can you do to make the discussion productive, engaging and meaningful? Could a learning management system help to make it happen? This presentation will focus on the use of the UMass Amherst implementation of WebCT Vista 4 (called SPARK) as a tool for collaboration and peer review, using case studies from an information technology course and an art course.

**CS37 (Schutt):** A demonstration of web-based tools for enhancing instruction in social science research methods: interactive exercises about research techniques, quizzes, flash cards, PowerPoint displays, collections of articles, and web-based exercises to find information. All materials are available through Sage Publications as supplements to my series of research methods texts with Sage.

**CS38a (Anderson, Miller):** Adobe Connect is easy for users to learn and relatively simple to implement. In UMass Medical School's rollout of Connect, the Academic Computing team found that the application could serve not only to create online training but also to troubleshoot computer issues remotely, register event attendees, even ease office crowding.

**C38b (Hatem, Maciag, O'Brian, Perla, Riza):** This session will focus on a framework for utilizing effective teaching principles to guide multimedia development. We will demonstrate successful uses of digital video for teaching. Participants will walk through the three phased evolution of this learner centered curriculum innovation complete with lessons learned and key gains along the way.

**PD01 (Baron, Billings-Gagliardi):** The Interactive Brain Atlas Project leveraged existing commercially available software (Adobe Acrobat) to create 12 atlases that guide medical students in learning neuroanatomy. The customizable and highly-rated Atlases incorporate new ways of presenting information that encourage students to relate brain structure and function with clinical applications, and accommodate many learning styles.

**PD02 (Bruce):** Having introduced the APRESO lecturing system into an Anatomy and Physiology course, an assessment was made examining the effectiveness of this new technology. Student use and class performance and attendance were examined. In addition, student preferences for use and reasons for non-use were explored. Impact on overall teaching effectiveness will also be considered.

**PD03 (Galizzi):** Four year data on economics students' performances were analyzed to assess the effect of introducing a course website and of assigning online quizzes. Both these changes were very successful in increasing students' participation and fulfillment of required coursework. Participation to online quizzes however did not result in improved exams scores.

**PD04 (D. Hart, Mattingly, Stein):** The Online Web-Based Learning (OWL) system offers online homework, testing, e-textbooks and training. OWL is used in 25 departments at the Amherst campus and by numerous departments at other UMass campuses. Chemistry OWL has been licensed by Thomson Publishing and is used in over 300 schools across the country.

# The Scholarship of Teaching & Learning: Technology & Reflective Practice

April 5, 2007

Sturbridge Host Hotel

## Session Abstracts

---

---

**PD05 (G.Hart):** Our poster session will focus on two areas. The main area is the short and direct capture of brief library instruction objects. These are created during Apreso Marathons. I start with a list of knowledge objects. Then I set Breeze for three, four, or five minute capture. I activate Breeze and record the first knowledge object--for example, how to download financial statements using standardized data via our Moody's online subscription.

**PD06 (Hegedus):** Wirelessly connect your students' work in mathematically meaningful ways. Aggregate work into a whole class display for comparison and generalization, and experience new forms of participation in your classrooms.

**PD07 (Martin):** Wiki's are a web server technology that allows a small group to jointly develop a web site. The technology works best in small groups that share a common goal and trust each other. The presenter will describe his successful use of Wiki's over the last two years in teaching project-based courses with undergraduate and graduate students.

**PD08 (Billings, Comes, Piorun):** The changing landscape of technologies and publishing will offer faculty the opportunity to achieve greater visibility and control. You will be introduced to two digital repository projects, and learn of the opportunities to solve the challenges of presentation, distribution and preservation.

**PD09 (Prasad):** Labs are used to introduce new definitions and theorems in Real Analysis (a higher level (abstract) mathematics course), through a series of examples. The labs are started in class, by entering answers to questions about the examples in tables, using tablet pcs supplied by a grant from Academic Technology.

**PD10 (Barrett, Levine, Lydon, Pasquale, Riza):** As educational institutions increase the use of technology in their teaching, it becomes key to examine how we are integrating its use into our curricula. A challenge to campus wide adoption of course management systems is the support needed by faculty and designers.

**PD11 (Scribner-MacLean):** This session will describe how podcasts were used to enhance an online course using WebCT. Anecdotal feedback has been overwhelmingly positive and students have requested that podcasts be included each week during the course. Resources about podcasting as a learning tool, resources to produce podcasts, elements of effective podcasts for online courses, and informal student feedback will be shared during this poster session.

**PD12 (Stoffolano):** An online course can be just another correspondence course. However, the diverse technologies available to instructors today make it easier to address student multiple learning styles. One way to do this is to use diverse multimedia. Another important aspect of this course is the use of a select/drag/drop computer tool designed to assist students in learning the basic arthropod groups. Also, any science course must help students develop their power of observation. To assist in improving observational skills this course uses a webcam to show various living arthropods.

**PD13 (Sullivan):** This virtual poster session demonstrates the potential diversity of distance education in the context of Kolb's cycle of learning. Registered nurses working towards a baccalaureate degree work through a variety of media and exercises geared [toward] the four stages in the cycle of learning as put forward by Kolb.

**PD14 (Wolf):** The introduction of inking technology to the classroom in form of TabletPCs has brought along new instructional techniques. Many studies have assessed qualitative improvements over traditional classroom presentation techniques. Our quantitative results shows with statistical significance that students perceive lectures with Classroom Presenter as more interesting and more adequately paced than lectures with PowerPoint.