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THE INNOVATOR
EXPLORING EDUCATIONAL TECHNOLOGY AT MU

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# JOURNEY TO THE DEEP END OF DVD

## FACULTY FOCUS: SHERRY BORCHERDING

In 1992 when I first started teaching in the School of Health Professions, I was baffled even by the use of e-mail. Other faculty members like to remind me of how often I said, "If you want to get a message to me, don't send e-mail. Read my lips! I don't do e-mail."

I've never been very confident with technology. Computers were never play for me. It seems like a miracle that I ever learned to use a word processor. I believe I'd still be technology-illiterate except for the efforts of a Network Support Analyst in radiology. He dragged me kicking and screaming into the computer age.

In 1995, I wanted to create a website for my class in psychosocial aspects of disabling conditions, which I taught in the Department of Occupational Therapy. I looked around for a tutor, and found help at the Program for Excellence in Teaching and the MU Institute for Instructional Technology (MUIIT). Over the course of a year, the website gradually came together. I had made peace with technology sufficiently to attend a MUIIT summer workshop on educational technology. It was wonderful. It introduced me to a new world of possibilities.

In 1999, I was one of 12 participants in the WebCT pilot program. I linked my website to WebCT and began scheduling some class sessions online. The structure of my online course relied heavily on guest speakers, so I had to find a way to integrate my speakers with the technology. This was the beginning of my interest in video.

Sherry Borcherding, seated in front, works hand-in-hand with Marsha Lyon, of ET@MO to add the finishing touches to Sherry's DVD for her Occupational Therapy course this fall, Fundamentals of Healthcare.

At first my quest for video integration was a home project, but it soon outgrew the limits of a home venue. The project grew in scope as I proceeded, as did the cost of development. Eventually I ran out of money

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### Calendar of Events

All sessions in 266 Heinkel unless noted otherwise

October 1 1:30 - 2:30
Planning Your Web Course

October 8 1:30 - 2:30
PowerPoint and Pedagogy

November 18 1:30 - 3:30
DVD Authoring for Your Course

November 27 1:30 - 3:30
Flash- An Introduction to Educational Uses

December 9 1:30 - 3:30
What's New in WebCT 3.7

Register for ET@MO events at http://etatmo.missouri.edu/events

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for the project and had to learn to do it myself. Enter Andrew White with his suggestion to work with Marsha Lyon, and utilize the resources within ET@MO's technology-rich studio. With Marsha's help, the first DVD is ready for trial run this fall. Looking back on my journey, I realize that without the support of past and present technology-support branches on campus, I'd probably still be handing out my syllabus on stone tablets every year!

*"Faculty members often remind me how often I said, 'Read my lips! I don't do e-mail.'"*

### Talking with the TechnoWizards

"We're a team," says Sherry of herself and Marsha, Systems Support Analyst at ET@MO. "Marsha's willingness to venture over the leading edge has made it possible for me to go there too."

In 2000 Sherry published a book teaching occupational therapy students how to document patient treatment. "It is hard to document treatment you haven't provided or seen provided," Sherry says. Eighteen months ago she began making a series of videotapes of occupational therapists treating patients. Sherry needed to edit these videos to a length that would be useful for class. Using Marsha as a consultant, Sherry created a series of short videos for classroom use. The students enthusiastically embraced the new media. Course reviews contained a great deal of praise and appreciation of the early videos. One challenge for the students, however, was that the videos were hard to hear. Sherry says, "The audio was still very frustrating, even though the content was good."

*"I'm trying to make learning more fun for the students."*

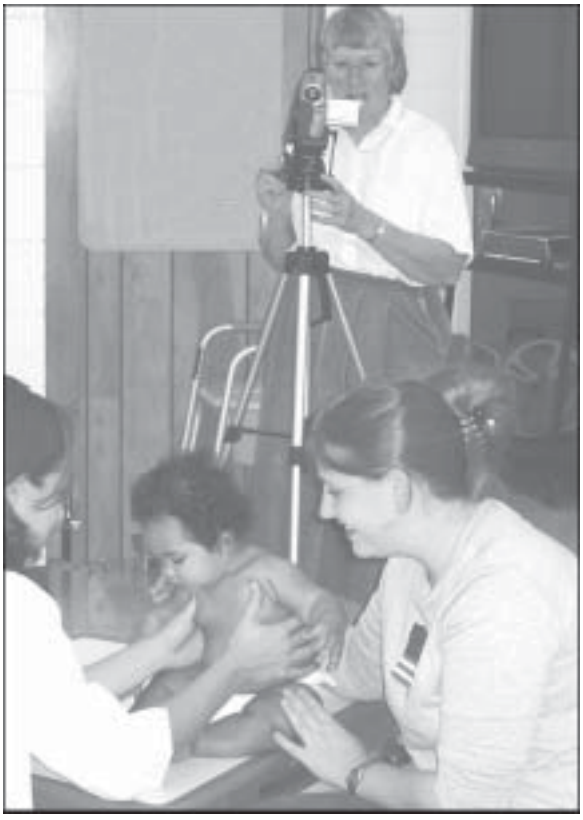
Along with incorporating external microphones to improve audio clarity, Sherry and Marsha also learned to use multiple cameras to get more informative content, including the use of close-ups for detailed information. Some precise editing finally yielded good quality in both audio and video. However, their next hurdle would prove even more challenging.

The resulting video file was too large for the web or compact disk. VHS tapes were capable, but were disconnected from the online medium. The emerging technology for managing digital files of this magnitude was digital versatile disk (DVD). With 4.7 gigabytes of storage capacity, DVD was the most logical choice. Although the process was largely unfamiliar, Sherry wanted to burn a DVD.

"DVD is leading edge technology," says Marsha. "The standards are not even well established. Before I began working with Sherry, I had burned a few DVDs on Mac, but we didn't even have all of the necessary hardware and software to author and burn them on PC." One of Marsha's responsibilities at ET@MO is to help faculty with projects involving digital media such as video and audio. " My goal was to stay one step of ahead of Sherry. Many times Sherry would ask me how to perform a specific task using video software, and I would say, 'Give me a couple days to figure it out, and then I'll teach you.'"

The pair has found the intricacies of creating a DVD to be challenging, frustrating and rewarding. " Sherry has been a real trooper," states Marsha. " I really admire her commitment to creating instructional media for students. As with using most types of technology, we have had our share of up and downs. But through it all, our resolve to create a useful product has never wavered. For me, working with Sherry has been very rewarding. I have been learning and teaching new technologies, and we are creating digital media that is instructional."

Sherry's goal is to produce a DVD to accompany her book when it is revised this year. "I'm trying to make learning more fun for the students," She adds, "and I look forward to seeing how the students enjoy the DVD in class this fall." e



Sherry uses a digital camera to capture video for a DVD course component. The resulting video files will be used in a course offered during the winter semester.

# BUILDING AN EFFECTIVE ONLINE COURSE-DEVELOPMENT COMMUNITY

By Kandis Smith, UM System and Margaret Gunderson, University of Missouri-Columbia

Nontraditional students are redefining education. They seek those educational resources that they deem the most credible, economical, and accessible. In response, colleges and universities are attempting to utilize instructional technologies to reduce the barriers of time, space, and curriculum. Thus many institutions are focusing on an economy of scale and resources through collaborative instructional development.

One example is nursing education at the University of Missouri. In 1997, the faculties from each nursing school in the University of Missouri system met and developed their proposal for the best way to leverage the funds available and the best way to use technology to support student learning and success in their programs. The proposal included the collaborative development of several Web-delivered, problem-based learning courses that were common to the curricula of all the schools.

## Building a Collaborative Development Community

One outcome of the collaborative development of the nursing courses was a strong sense of community. This collaborative development community included three basic subgroups or teams, each with a specific purpose related to successful online course development.

The "distinctive gathering places" for each of these teams were solely for the purpose of communication and collaborative decision-making. Communication initially took place in face-to-face meetings. However, the teams quickly moved to the virtual environment that would also be the basis for course communication. Collaborative community building was solidified within the virtual environment and provided the added benefit of enabling those who would be the instructors of the courses to become more comfortable in their virtual classrooms.

During the implementation phase, the facilitator focused on the members' ability to share ideas and plans, as well as disagreements regarding responsibilities, timelines, and interrelationships of responsibilities.

These negotiations led to shared decision-making and consensus building. This created avenues for interaction that allowed community members to build trust, respect, and a conscious commitment to individual and group goals, leading to shared vision, risk, and ownership of course development. The importance of facilitating effective communication among team members cannot be stressed enough. As R. Palloff and K. Pratt stated in *Building Learning Communities in Cyberspace*, "The keys to the creation of a learning community and successful facilitation online are simple: honesty, responsiveness, relevance, respect, openness, and empowerment." J. F. Donaldson and C. E. Kozoll, the authors of *Collaborative Program Planning*, concur and note that interpersonal communication and social processes play a key role in effective collaborative groups. Also important to the success of collaborative arrangements are the perceptions of fair dealing, the development of transcendent values and norms, and an open and honest communication that leads to trust.

## Benefits of Collaboration

One of the benefits of the collaborative course development was the accomplishment of shared departmental goals. The cost of the development of the classes was shared by the three schools of nursing, thus decreasing the costs for each school while developing courses for all three.

Collectively there was also a better course design and development than what the individual schools could have produced. None of the faculty had any experience teaching online, and few had experience teaching from a problem-based learning perspective. Nevertheless, collectively they were able to communicate what they wanted to do from a teaching and learning perspective.

The broader exchange of new information within the collaborative community created an increased intellectual exchange and stimulation for faculty and ultimately for students. Although faculty were experts in the courses they were teaching, individual areas of research differed slightly. This collaboration enabled the exchange of ideas and new approaches to teaching and learning.

Another benefit was the greater coordination of courses. Any collaborative course could be offered by any of the campuses or any of the team instructors involved in the project. This enabled the schools to schedule the courses so that only one campus was offering the course in any given semester. However, students could enroll in the class no matter which campus was offering the course.

Each new collaborative course-development project is unique, with its own set of challenges and opportunities. Each often pushes the boundaries of design, development, and delivery a little further. The results are well worth the time, energy, and financial investment. Students who were not able to come to campus-based classes or were not able to fit the face-to-face course offering into their semester schedule can now reach their goal of lifelong learning.

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THE TECHNOLOGY CORNER

# DEALING WITH COURSE DECAY

## PRESCRIPTIVE MEASURES TO REDUCE LINK ROT

We've all experienced the aggravation of clicking hyperlinks that lead to a dead end. Most web surfers sigh with resignation, then move on after their attempt to access the next level of cyberspace is aborted by the annoying "Error 404" message. Frustration is increased when that dead link should have revealed material needed for your students to pass a mid-term exam.

Despite an obvious deterioration of its integrity, the Internet continues to expand as an educational medium. According to David Brooks and John Markwell, two professors at the University of Nebraska at Lincoln, this Internet epidemic, referred to as link rot, has a high concentration in online education.

Over a period of 20 months, Professors Brooks and Markwell monitored the rate of extinction of 515 unique links in three graduate-level chemistry courses. Their findings concluded that the rate of link rot for these courses (pages that moved, disappeared, or were replaced by other content) was similar to the rate of decay for radioactive substances.

In addition to an unchronicled number of independent course websites, ET@MO recorded more than 600 active WebCT and Blackboard course management sites during winter semester 2002. ET@MO also is aware of problems associated with link rot in MU course sites.

To prevent link rot from running rampant in MU online education, ET@MO has compiled several tips for faculty to consider as they develop and maintain course sites and websites for face-to-face and distance courses.

### Ways to avoid victimization of link rot

1 Request copyright permission to reproduce material that exists within websites or course sites
2 Manually check links for content accuracy
3 For MU Blackboard course sites, use the link checker utility to verify active URLs

### Ways to avoid contributing to link rot

1 Try not to change URLs
2 Choose appropriate file naming when creating pages with dynamic content
3 Incorporate dates in file-naming to recognize outdated information
4 Provide redirects when moving URLS

Internet search engines can also retrieve multiple link-checking utilities. These resources, along with ET@MO assistance, can all help make the "Error 404" message less commonplace.

J. Markwell and D.W. Brooks (2002) "Broken links: The ephemeral nature of educational WWW hyperlinks." Journal of Science Education and Technology, June 2002. A summary of the study is available online at http://www-class.unl.edu/biochem/url/broken_links.html

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