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Enhancing Online Faculty Productivity with WebCT

Judy Baker
Dean, San Diego Community College District Online

The San Diego Community College District created a successful training program for development of online courses using WebCT. Here, the dean of the program provides insights into efficient design, delivery, and assessment of online instruction.

Experienced online instructors can easily identify the most time consuming tasks in course development, management, and delivery: course organization, the conversion of course materials for online delivery, student assessment, and interactive features. While at many colleges internal grants provide the incentive for faculty development of online courses, the sustainability of online instruction programs demands efficient use of faculty resources—strategies for the appropriate use of online course management systems.

At San Diego Community College District, instructors receive formal training in instructional design and strategic use of WebCT prior to teaching their first online course. WebCT's many features for course organization, communications, and testing make it both a complex software program as well as a highly scalable solution for the delivery of online instruction.

Course Organization

First, for a multiple-section course, instructors need to decide whether to include students from all sections in the same course, or whether to create duplicate courses for each section. If no changes will be made to the course materials, the latter approach will work. But if the course is dynamic and evolving throughout the semester, the former works best. One way to manage a single course containing students from multiple sections using WebCT is to include, as a common component, course materials accessible to students in each section. Instructors can then develop

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NEXT MONTH:

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CCCApply

Community Colleges Eligible For .edu Domain

@ONE eNews

Educause is accepting applications from newly eligible institutions for an .edu name during a "sunrise" phase until January 4, 2002.

Under a recent agreement with the Commerce Department's National Telecommunications and Information Administration, Educause will protect the reliability and integrity of the .edu domain for colleges and universities. A key piece of the agreement makes U.S. community colleges eligible for .edu domain names for their Internet addresses. Previously, only four-year colleges and universities were eligible for the distinctive .edu tag.

For more information, or Guidelines for Proposing a Unique Domain Name, visit:

http://www.educause.edu/edudomain

.edu

Applications for new .edu domain names will be accepted beginning November 12, 2001, though no new names will be awarded until January 7, 2002.

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TIPS online *http://video.4c.net/TIPS*

off the wire

@ONE eNews

NEW Simulations Tutorial Online

@ONE has posted its fourth self-paced tutorial, "Using Simulations to Enhance Teaching and Learning" at the @ONE web site, *http://one.fhda.edu*. This tutorial adapts the content of our popular training course of the same name.

At your convenience you can learn where to look for simulations that can supplement your classes, what makes a simulation good and how to design effective assignments incorporating simulations. In addition, you can examine practical considerations both from a curricular and administrative perspective that can help you be successful in reaching learning objectives through the integration of simulations into you traditional or online classes. Faculty in the Sciences and Vocational Education may be particularly interested.

For more information or to log in, go to:
http://one.fhda.edu/training/onlinetutorials.htm

@ONE Technology Training at Your Campus

@ONE is introducing a new on-site training service to California Community Colleges. To reach more faculty with quality @ONE training, we will bring @ONE workshops to your campus. Our training can be tailored to meet the needs of your faculty and institution.

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Your college contact will be responsible for the logistics of the workshop including promotion to your faculty, registration, lab set up and technical assistance. Your technology trainer is encouraged to team teach with our trainer.

CONTACT

If your institution is interested in the possibility of scheduling @ONE training for Winter and Spring 2002 or would like to discuss your future training needs, contact our @ONE trainer, Jane Ostrander, at *ostrander@onemail.fhda.edu*.

New Study Shows That Women Are Embracing Online Learning

Chico Enterprise-Record

A new report by the American Association of University Women (AAUW) Educational Foundation has found that distance and online learning is on the rise, and that women make up the mahority of students.

Sixty percent of these nontraditional online learners are over 25 years of age and female.

Working mothers interested in furthering their education are doing so online and adding a difficult "third shift" to their responsibilities as mothers and employees, according to the study, "The Third Shift: Women Learning Online," authored by Chreis Kramarae, the AAUW's 1999-2000 scholar-in-residence.

"Technology does not create more hours in the day, and leaves women - who shoulder most of the family and household responsibilities - improvising to 'squeeze in' education," said Jacqueline Woods, AAUW's executive director.

"We need to deal with the time bind that all parents and older students face if we want to make the rhetoric of 'lifelong learning' for the 'information economy' a reality."

While most of the more than 500 women and men surveyed for the study identify numerous benefits to online learning, many also express anxiety about fulfilling their other roles while having to study, do research, and write papers.

Many respondents stated that they often do their coursework while other family members are sleeping. "I meet my deadlines at great cost. I lack sleep and lack personal fun time for the time being," said a 40-year-old marketing consultant, married with a child at home, and working toward a degree through distance learning.

"For all of the benefits of distance learning for women, these students still have to make tremendous sacrifice to balance the demands of work, family, and school," observed Kramarae. "Despite the motivation and dedication online learners demonstrate, our study found that many are still made to feel that they are letting their families down when they try to further their education."

According to the report, the perception of an online learner as a pragmatist, searching for one or two courses a la carte to boost their job prospects, may be inaccurate. The majority of virtual students surveyed had educational goals and aspirations similar to those of traditional-age students attending traditional brick-and-mortar colleges and universities.

Most were taking online courses in pursuit of a degree, and for the satisfaction of learning and the sense of accomplishment that this would provide.

"Online students are seeking the same intellectual engagement and richness that students seek in the traditional context," commented Kramarae. "It's important that online learning not give short shrift to these goals and priorities."

Women give distance learning high marks for many of its qualities.

- Family and flexibility - they can be home for their family, learn at their own pace and do course work when they can fit it in;
- Minimizing costs - saving money and time on commuting and child care;
- Fulfillment - from obtaining a degree or gaining useful knowledge to fulfill personal goals.

Non-traditional-age female students, in particular, comment that the virtual classroom minimizes the discomfort and alienation they sometimes experience on college campuses populated by 18- to 22- year olds. As a 31-year-old legal secretary commented, "... because of my age, compared to the average student, I feel I don't need the social aspect as much as someone younger may feel they need it. In fact, on some levels, I'm happy not to have to deal with other students."

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Many women reported that support at work and at home are important factors in their success. Said one respondent, "My boss ... allows me time at work to take on my course assignments." They also cite personal traits such as self-motivation, organizational skills and independence as being important.

Despite the positive aspects of online learning, there are also a number of factors that many of the women surveyed find discouraging, including the

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casestudy

Using Tegrity WebLearner to

San Diego Community College District

Ric Matthews
Technology Trainer

Gin Gee
Professor

The San Diego Community College District (SDCCD) needed a way to make the transition from classroom instruction to online instruction for teachers who would help to build a new virtual university. Tegrity offered a cost-effective solution that could be shared among multiple instructors and enable them to create media-rich online content, without having to alter their natural style of teaching.

Key Benefits

- Recording method makes best qualities of professors available to online students
- Portable studio enables online instruction to be produced at a fraction of the cost of other alternatives
- Minimal tech support or production assistance required

Building an Online Degree Program

The district has experimented with online learning, and many faculty have already produced supplemental online courses using WebCT, a web-based course management system. But the district is now ready to centralize its efforts and launch a complete online university, offering full degrees to off-campus students. One of the challenges to making this initiative a reality is the need for instructors to make the transition from traditional classroom teaching to online teaching.

Ric Matthews, who is a Biology Professor, Technology Trainer for the SDCCD, and Regional Trainer for the California Virtual Campus consortium, explains that in addition to text-based information being organized inside WebCT, they now wanted to provide a standard method for capturing natural classroom teaching and converting it to an online format. To add audio and video to their WebCT courses would require a flexible hardware/software platform, bandwidth-efficient media, and tools that any instructor could use. Most existing media production tools required extensive expertise and effort that faculty are not trained for.

Tegrity WebLearner Eases the Online Transition for Teachers

The WebLearner Studio is an integrated solution that can be rolled into any classroom or training room environment with an ordinary whiteboard. At the core of the system is Tegrity's WebLearner software which turns a PC, projector, cameras and microphone into an easy-to-use audio/video recording device. A single instructor with minimal training can operate it, with no video crew or tech support required.

When SDCCD looked within their ranks for products and services that were already successful with their faculty, they paid careful attention to the Tegrity WebLearner Platform already being used by Professor Gin Gee in the Biology department at San Diego Miramar College. He has been teaching Biology for over 20 years, and currently has approximately 250 students each semester who use his website for a regular on-campus biology course, online biology course and an Honors biology course. His three courses were developed using WebCT template design, and all learning activities were consolidated in one page for efficient access.

He began using Tegrity WebLearner in 2000 and has been producing self-contained audio/video lecture presentations as a method for delivering the core information for each course. He put considerable effort and preparation into the PowerPoints that served as the bases for the each recording, but the recording process itself was fairly simple. Gee chose to use an assistant to make the process go even faster for him. He has taken advantage of Tegrity's flexible distribution options, and offers both web access and CD-ROM's for students to view at their convenience and pace. Students use the modules because they believe test questions will likely come from what instructor emphasized in the modules. They can even view them simply as PowerPoint slides for quick review before examinations.

Over 90 Percent of Online Students Agree That WebLearner Makes an Impact in Their Learning

Student feedback has been very positive. A survey of 132 students revealed that over 90% found the Tegrity presentations helpful or very helpful for each lesson. Over 80% found them clear and easy to use, and they were most

valuable in preparation for exams, as well as watching before lectures and as a substitute for reading the textbook. Most students averaged at least three hours a week in using the presentations during study time.

Many of Gee's students are English-as-a-second-language learners, and the ability to see and hear the recorded lectures repeatedly is critical to their understanding of the material.

Gee also claims that using WebLearner has increased efficiency for both students and instructor, as it provides a tool to streamline and organize presentations for students who can access the information anytime and anywhere. Ordinarily it takes 1 to 1.5 hours to do a chapter presentation. With Tegrity WebLearner, the concepts and topics are organized and condensed ahead of time in PowerPoint. Without any student interruptions, a traditional lecture can be reduced to 20 to 30 minutes, which is a benefit for busy working students who take online courses. According to Gee, "Any online course can be greatly enriched with the Tegrity WebLearner system, for it is the closest thing to real live presentations on the Internet." Gee adds, "They also like the presentations because they are shorter than regular classroom lectures and focused on the topic with vivid illustrations in PowerPoint format."

Advantages of Extending WebCT Courses Using WebLearner

SDCCD has standardized on WebCT, and courses will be constructed with uniform structure and delivery methods. Once the student learns how to navigate in one course, he or she gains proficiency in others. While Gee believes "all-the-same" text-format sites can be boring, he thinks the additional ability to create virtual lectures with WebLearner adds a huge variance of creativity. The virtual lectures are generally short (10-20 minutes) concise and focused on key concepts. The graphics, diagrams, and charts in virtual lecture are simple and clear. For multicultural students, Gee pronounces clearly and slowly, and his voice is automatically synchronized by WebLearner with the written script on the slides. Making links inside WebCT to WebLearner modules (learning objects) from his online courses works the same way as linking to websites, documents or other resources for students. It is a simple URL link inserted in the text.

"15-20 minutes is wasted in typical one hour classroom lecture for taking attendance, handing out papers, students coming in late, cellular phones ringing, interruptions, questions and students leaving 10 minutes before the hour for their next class," says Gee. "A well-prepared short virtual presentation holds student's attention, minimizes fatigue, and can be viewed anytime." After watching, students can immediately ask questions via email/discussion bulletin. The instructor can also tie the modules to activities, measurable assessments and learning resources external to the course to promote challenge, critical thinking and global interactions.

Business Environment

According to Ric Matthews, SDCCD is pushing to make an online presence by offering students a full degree in an online college. To accomplish this goal, they are centralizing efforts in a coordinated fashion. The district has just brought on a new Dean for Online Programs, Judy Baker, to lead the project, along with an additional instructional designer. They have settled on WebCT as a standard for the learning management environment. Choosing the WebLearner platform as an essential component for content creation was a straightforward decision. It's not the only tool they will use, but it is the only one that enables them to move from "innovator use" to more mainstream use. It is the best solution for faculty who need assistance to get from whiteboard style teaching to online teaching. And since many already have developed skills with PowerPoint, learning to use WebLearner is a short leap for most of them, even those who were previously resistant to technology.

Future Plans

The college has been designated by the San Diego Community College District to offer online degree programs. As such, many more online courses will be developed. More instructors will continue to use the technology and they plan to widen the scope of WebLearner use as the demand increases. They have just purchased a third WebLearner Studio that will be shared for all campuses. Matthews predicts that faculty demand will increase as they see results being created by their colleagues. The Math and Nursing departments are already getting started. Even SDCCD's instructional designers plan to make use of WebLearner's screen

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Productivity With WebCT

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customized discussion topics and tests for each section. The instructor can limit students' access to portions of the course by utilizing the Selective-Release function of WebCT. By designating a hyperlink on WebCT course Organizer Page for Selective Release, the instructor can control when and to whom the hyperlink will appear based on students' first name, last name, User ID, student records from Manage Students, and date.

Second, students are more successful and efficient when given limited navigational options. By providing clear and meaningful navigation throughout an online course, the instructor minimizes student communications devoted to technical and logistical questions rather than course content. Course developers have the option to remove or minimize navigation features on the Course Menu, Homepage, Action Menu, and Content Module Table of Contents, but not on Breadcrumbs and Course Map.

Students can link to specific areas of course content by selecting items from the Table of Contents of a Content Module. In WebCT, Content Modules provide an efficient way to organize course material. Course content can be organized into a Table of Contents that provides a sequential list of each course component. Each item listed in the Table of Contents is actually a hyperlink for students to click for quick access to text, multimedia, and HTML files.

Another efficient use of student and faculty time is to provide opportunities for students to demonstrate competency/mastery so that they can skip lessons and progress through the online course at a pace that is appropriate for them, thereby avoiding unnecessary student work and teacher grading. The Selective Release feature of WebCT allows the instructor to control access to selected portions of a course based on individual student performance.

Conversion to Online Delivery

Many instructors find that the process of converting existing documents for use in a WebCT course is tedious at best, and daunting at worst. First, all course materials need to be put into digital format such as word processor text, HTML, or PDF files.

Next, the instructor must upload the files into the WebCT course using File Manager. Some instructors speed up this process by combining all course-related materials into a single zipped file, compressed to take up less storage space and upload to WebCT more quickly.

Unfortunately, the use of files other than HTML or simple text in WebCT can create problems for students who do not have access to the plug-in software necessary to view the files. To circumvent this problem, instructors can include links to free downloads of the required software or plug-ins from the WebCT course Web site or a companion CD-ROM.

Many HTML editors, such as Dreamweaver and FrontPage, aid in the process of converting existing course materials into HTML or Web page format. But each editor requires time and training. Another option is to save and/or export documents into HTML format using tools found in most word processing programs. However, creation of an HTML document in Office 2000 adds special markup tags to the document that are problematic in WebCT. To avoid difficulties, instructors can install Microsoft Office 2000 HTML Filter when converting Word 2000 or Excel 2000 documents. Users can open the document to be filtered, then use the Export to HTML command on the File menu.

Finally, the Exchange zones of the WebCT Web site at www.webct.com/exchange/ provide several tools for converting existing materials into a WebCT course. For example, the WebCT Calendar Tool Text File Creator allows instructors to create a text file for uploading and importing to the Calendar Tool within WebCT. With this tool, the instructor can make a list of all desired calendar entries offline, then add them automatically and simultaneously to the WebCT Calendar. This is far less time-consuming than making individual calendar entries by typing information into various fields within the WebCT Calendar area.

Online Student Assessment

Successful online instruction demands frequent and varied student assessment, but assessing online students poses unique challenges. For instance, the need for more assessment requires alternative grading strategies, such as randomly selecting 50 percent of student submissions for detailed grading and comment. Another approach is to employ self-grading and peer grading. In addition, assessments that do not count toward the final course grade can provide feedback on student performance with less pressure on both instructor and students.

In courses delivered via WebCT, the Track Students tool, as well as the Search feature in Discussion Board and e-mail postings, provides ample information about the activities of individual students. In the Manage Students area, the Track Students tool gives instructors details about the progress of individual students through the course material. The instructor can obtain a listing of the pages in the content modules that students have visited and the date and order in which

students visited each page. The instructor can also access a report on the number of times each student viewed and/or contributed to a Discussion posting. WebCT tracking tools can also be used to identify and diagnose student participation patterns for early intervention. For example, instructors can track the number of e-mails and/or bulletin board messages generated by individual students from the Track Students report, then sample these messages using the Search feature in Discussion to gauge the quality of their work and the thoughtfulness of their discussions.

To build a Question Database for creating tests while within WebCT, instructors must enter each question into the database separately. The process can be very time-consuming and has a high potential for error. Fortunately, instructors can create test questions outside of WebCT by following a specific set of formatting rules. Several tools exist for automating the process of converting existing tests offline for use in WebCT: Respondus, MakeQuiz, Quiz Parser, and Question Assistant. Each allows the instructor to create a test as a word processing document, formatting the questions so that they can be uploaded and imported to the Question Database within WebCT. Respondus is the most powerful and versatile of the tools. Quiz Parser, MakeQuiz, and Question Assistant can convert multiple choice and true-false questions from simple text files into a format for uploading into WebCT Question Database. Questions created using Question Assistant can be used on a Web site outside of WebCT for student self-review.

Interactivity

Innovative approaches to providing instructor-student interactivity are key to decreasing online course attrition rates. However, unless instructors set parameters for these interactions, the 24-hour/7-days-a-week expectations and assumptions of students can become overwhelming. Instructors might consider the benefits of organizing students into small groups for the purpose of coordinating their communications with the instructor and each other.

The Student Presentation tool under Manage Course in WebCT has a Group Generator for forming groups from the class list either manually or randomly, allowing e-mail to be delivered to all members of each group rather than to individual students. In the Discussions area of WebCT students and instructors can send, read, and search for messages. Using Topic Manager, the instructor can create discussion groups under private topics available only to the set of students selected by the instructor.

The designation of a group spokesperson will dramatically reduce the number of student-to-instructor interactions. The instructor can also lock a Discussion topic so that messages can still be read but no new messages can be posted. Because messages posted in the Discussions areas can be compiled and downloaded by students, students can communicate with each other about their questions to refine and consolidate their questions. Knowing that interactions with their instructor are limited, students may be motivated to enhance the quality and nature of their communications. In addition, instructors can assign students to summarize online group Discussions postings on a rotating basis every week. Instructors could also consider assigning different students each week to post a summary of the class discussion for the prior week, or respond to frequently asked questions in the Discussions area.

Challenge to Educators

Online course development and delivery need no longer be the exclusive responsibility of the instructor. At San Diego Community College District this past year, a team approach led to the development of SDCCD Online. The team of more than 50 faculty and staff volunteers from Miramar College, City College, Mesa College, and the Centers for Education and Technology coordinated faculty development, student support services, course development, and technical services for delivery of fully online instruction via WebCT. As a result, SDCCD Online now offers a fully online Associate in Arts degree in transfer studies and a Webmaster Certificate along with an online student services infrastructure, including online application, registration, library, counseling, bookstore, and tutoring. Clearly, effective and efficient online course development and management requires the coordinated efforts of instructors, students, and instructional technology consultants.

Judy Baker is dean of the San Diego Community College District Online. *Jubaker@sdccd.net3*

Case Study

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recorder capability to teach faculty how to use software applications. In addition, students today are putting more pressure on their teachers to provide multimedia to accommodate multiple learning styles and modalities.

More Information

For more information about Tegrity products and services, call Tegrity at (800) 411-0579 or visit the Tegrity Higher Education website at *www.tegrity.com/pte.html*. Email inquiries to *salesusa@tegrity.com*.

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Dr. Gee can be reached at *ggee@sdccd.cc.ca.us* .

Women Online

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cost of tuition and equipment, the often-difficult course load and the fact that not all distance learning programs are accredited.

Among the report's recommendations:

- Expand financial aid programs to support part-time students currently unable to qualify because they are taking small course loads;
- Involve more women administrators, teachers, and students in the planning process for online courses.
- Educate policy makers concerning the difficulties faced by working mothers who are seeking to continue their formal education through distance learning;
- Broadly disseminate information on distance learning to reach populations of women - for example, welfare-to-work participants or older, both of whom are unlikely to visit traditional sites for information;
- Treat distance learning students as responsible and intelligent beings, not as passive educational consumers.

The full report is available from the AAUW Educational Foundation: *http://www.aauw.org/2000/press*.

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