

# WINDOWS ON TECHNOLOGY

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## IN THIS ISSUE: Furthering Active Learning

Read how UW instructors are actively involving students in their classes by using *VirtualCase* and *Portfolio*, two *Catalyst* tools. Take a peek at *Video Traces*, a video annotation prototype being developed by the Program for Educational Transformation Through Technology (PETTT), whose research studies in learning on campus contribute to the design and development of *Catalyst* tools.

### VIRTUALCASE

#### Using VirtualCase in International Studies

For his International Political Economy 401 class last autumn, UW lecturer **Kenny Lawson** put together a role-playing simulation using *VirtualCase* (see box). He divided over 100 students into some 30 groups, each representing a nation or international organization. Their task was to propose solutions and negotiate agreements on AIDS, debt, and other policy issues.

Students could communicate within their group using *VirtualCase*, but they also wanted to communicate group-to-group. This capability wasn't part of the tool, but the *VirtualCase* developers were able to make the change.

"*VirtualCase* allowed us to do pretty elaborate communication without using a lot of class time," says Lawson. "Students could share files, arrange meetings, and talk to other groups anytime."

For faculty trying to develop a hands-on learning environment, Lawson says *VirtualCase* allows

#### What Is VirtualCase?

*VirtualCase* is a *Catalyst* tool you can use to set up a "case study" or "simulation" that brings resources together so students can problem solve and

- ◆ Collaborate by sharing files, a message board, and images on the Web
- ◆ Make decisions as a group

*VirtualCase* is based on medical education's "virtual clinic" model of problem-based learning created by UW professor **Ed Walker** in 1998.

Learn more about *VirtualCase* at [catalyst.washington.edu/tools/vcase.html](http://catalyst.washington.edu/tools/vcase.html)

students to collaborate in ways they probably couldn't without technology. "It'd be great for classes that meet only a couple times a week. Students love it."

Lawson feels *VirtualCase* allows him to adopt other exercises and be more innovative in his teaching. "I'm convinced that simulations provide excellent hands-on learning so I try to use them in all my classes." ■

#### VirtualCase Valuable in Social Work

**George Gonzalez**, *School of Social Work* teaching associate, used *VirtualCase* with graduate students in SW595 Autumn Quarter. They take the course at the start of a one-year internship, or practicum, with the Division of Children and Family Services.

"I based the scenario on a case I had as a Child Protective Services social worker," explains Gonzalez. The students had to decide what to do in the case of extreme child neglect. Each choice had a different outcome.

"Students worked the case as a group, got to see each other's feedback, and made decisions by majority," says Gonzalez. "They also came to rely on one another for bouncing around ideas and for support."

Gonzales attended a two-hour workshop on *VirtualCase*. He put his case together in about an hour, and took it to the [Center for Teaching, Learning and Technology](#) for a quick 15-minute review.

"*VirtualCase* provided students a safe place to make some very difficult decisions," says Gonzalez. "They said it was very helpful in reducing their anxiety about going out and working in the field." ■

- 1 *VirtualCase*
- 2 *Portfolio*
- 3 *Video Traces*
- 4 *Learn more online*

*"Using Portfolio has incredible ramifications on how you teach. Introducing a new tool allows you to rethink or revise the way you teach a class. You have to be open-minded and willing to take a risk."*  
—Jennifer Turns, Technical Communication



## PORTFOLIO

### FIGs Use Portfolio

In Autumn Quarter 2002, some 3200 students in [freshman interest groups \(FIGs\)](#) and their 165 leaders were among the first to use [Portfolio](#) (see box).

"We ask questions and provide opportunities to use Portfolio to write reflections and store artifacts from college that they can take advantage of later," says **Jason Johnson**, associate director of first-year programs for [Undergraduate Education](#).

"Portfolio gives me a space online where I can collect anything from JPEG files to essays for different classes," says one FIG student. "And I control who gets to see them."

Next fall's FIG Portfolio assignment will ask students to think about their goals and aspirations, collect samples of their work, reflect, and present to their classmates. It can help them think about how they are making decisions for the future such as which classes to take.

"Portfolio helps students collect, reflect, present, and decide," says Johnson. ■

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### What Is Portfolio?

The Catalyst Portfolio tool provides a way for students to collect, reflect on, and annotate an online record of their work — papers, art, research, and projects — that illustrates their accomplishments at the UW, and publish it on the Web for a variety of purposes:

- ◆ For courses and prospective graduate schools
- ◆ To help choose a career or land a job
- ◆ To reflect on their time at the UW

Instructors can use Portfolio Project Builder to set up class projects for students to complete, with reflective prompts.

Developed with funds from the [Student Technology Fee](#), Portfolio was released Autumn Quarter 2002 and revised based on feedback in spring 2003. Take a tour at [catalyst.washington.edu/tools/portfolio.html](http://catalyst.washington.edu/tools/portfolio.html)

### Portfolios of Progress

"Using Portfolio has incredible ramifications on how you teach," says **Jennifer Turns**, assistant professor of [technical communication](#). "Introducing a new tool allows you to rethink or revise the way you teach a class. You have to be open-minded and willing to take a risk." Turns is using [Portfolio](#) in three different ways.

#### IN DIRECTED CLASS ASSIGNMENTS

For TC310 Autumn Quarter, Turns invited her 20 students to submit portfolios. The class involves teaching software used in technical communication, so students did assignments using PowerPoint, DreamWeaver, InDesign, and other programs. They submitted their work in Portfolio, where prompts asked them to reflect and discuss their design rationale and Turns provided feedback.

"It was not as time-consuming as I thought it would be," says Turns. "What was helpful was that I had a repository of

my written commentaries to look back on later."

#### IN REFLECTING ON TEACHING

At the graduate level, Turns is working with engineering students to create teaching portfolios. They will use Portfolio to help them start to think about how they teach.

"It's a place for them to say 'these are the things I like to do in my teaching and here is evidence that I've done them'," she explains.

#### IN NSF-FUNDED RESEARCH

Turns also is using Portfolio in an NSF-funded research project to follow a group of engineering students as they progress from freshmen to seniors. Their theme is "me as an emerging (specialty) engineer." As students follow the curriculum, they explore how they believe coursework is building their knowledge base, and their understanding of the reasoning behind requiring particular classes. Their portfolios could inform a faculty discussion about program curriculum. ■



*"The idea of putting your comment next to the digital content in Portfolio is a powerful way of testing students' understanding."*

*—Philip Howard, Communication*

## Portfolio for Analysis

"I think I used Portfolio in a different way than it was originally designed for," says **Philip Howard**, assistant professor of [communication](#), who taught Politics Online 495B Autumn Quarter. "I wanted to let students do annotations of political Web site content, with analysis on one side and actual content on the other."

Using [Portfolio](#) was just one option. Students could also write a traditional paper or create their own political Web site. About a third of the students used Portfolio after a tutorial by **Mark Farrelly**, a member of the [Catalyst](#) team.

"Students either had to have a political personality or be willing to develop one through the projects, so Portfolio let them explore that," says Howard. "A student interested in African American political identities visited a number of sites and built a critique of what was good and not so good about the content."

**Courtnei Milonas**, a senior in communications, used Portfolio for her assignment. "I definitely think more teachers should use Portfolio as a project option," she recommends. "It allows for a large amount of text, like a paper, but it also gives space for visuals, links, and comments."

Howard thinks Portfolio would be useful for any class where the assignment is to review some kind of content. "The idea of putting your comment next to the digital content in Portfolio is a powerful way of testing students' understanding." ■

## VIDEO TRACES

### Rowers Get Feedback With Video Traces

"The biggest thing about Video Traces for us," says **Eleanor McElvaine**, athletic coach for the UW freshman [women's rowing team](#), "was that the athletes could access this whenever and as often as they wanted."

In the past, it took time out of practice for everyone to go to the video room and look at each athlete's performance. With Video Traces (see box), each person has her own clip. McElvaine also made a "good examples" clip so the rowers could compare themselves.

Even experienced rowers need to watch the video. "They can learn a lot from the visual image with my comments over the top," explains McElvaine.

In one clip, McElvaine freezes the frame and uses the pointer tool to show the position of the student's back as

### What Is Video Traces?

Video Traces allows you to capture a piece of video and then add several types of visual and verbal comments. The video plus the annotations is called a Video Trace.

In annotating, you can

- ◆ Use the mouse to point to particular features
- ◆ Freeze the frame to make a detailed comment
- ◆ Change the speed

Video Traces was originally conceived in 1993 by **Reed Stevens**, UW assistant professor of cognitive studies in the [College of Education](#). In 2000, [PETT](#) (Program for Educational Transformation Through Technology) began working with Stevens to implement his vision of the system and further develop it.

she starts to pull, and then advances frame by frame, in slow motion, to show how she pulls through to the next stroke.

"It's great we have the

expertise at the UW to develop this kind of tool," reflects McElvaine. "My hope is that Video Traces will be available to all educators, elementary and high school. It's an A+ in my book." ■



Rowers view their individual trace with comments on their strokes.



*"The Video Traces software has supported the pedagogical goals of the class — developing the critical eye, hand-in-hand with verbal articulation."  
—Maria Simpson, Dance*

## Video Traces in Dance

**Maria Simpson**, assistant professor of [dance](#), was shown the Video Traces software two years ago and asked if it might be useful in any courses she taught. She's used it in her Composition III class each Spring Quarter since.

### DIFFERENT FROM VIDEO

"My first question was 'how is this different from video feedback?'" Simpson recalls. "I learned that we can annotate Video Traces, control the speed, point out different bodies in space, and talk about what we are doing. I don't have to rewind the tape to find a student in the mass of students because each is saved separately. I can stop it and start again at the beginning in a second."

### See and Hear More Testimonials Online

Faculty and students discuss their use of these tools and [PETTT](#) projects such as the Arthritis Source, augmented reality, WebEd, and digital Egypt at [depts.washington.edu/pettt/petttdemo/WebMap.html](https://depts.washington.edu/pettt/petttdemo/WebMap.html)

To run this streaming video, you need to use RealOne Player, a free download at [www.real.com/](http://www.real.com/)

### HANDS-ON BY STUDENTS

Last year Simpson made the use of Video Traces a class requirement. Students used it for first and final showings of three creative projects, setting up the camera and the laptop themselves.

"I thought the labor and technology involved was going to get to them," remembers Simpson. "But they really responded to it."

After class, they talked about the showings.

"First they heard from their peers, and then I annotated the Video Trace," says Simpson. "Each student annotated the final showing and could address issues raised."

With Video Traces, Simpson could see the piece again, on a small screen, so she didn't have to assess it on the spot.

### Explore Tools and Get Help

Go to [catalyst.washington.edu/](https://catalyst.washington.edu/) and click "Web Tools" to learn more about Catalyst tools. Click "Learning" for workshops.

Faculty and staff also can get [one-on-one consulting](#) help at the Center for Teaching, Learning and Technology (CTLT) in Odegaard Undergraduate Library, Room 230.

### SUPPORTING PEDAGOGICAL GOALS

"It was much more interesting to hear what the students had to say about their work, because then I could respond to that," explains Simpson. "I encouraged them to talk about different concepts discussed in class — use of space, dynamics, and specific elements of the creative process in dance."

Simpson envisions anything where the visual component or technique is important as benefitting from Video Traces — theater, music, and surgery.

"The Video Traces software has supported the pedagogical goals of the class," concludes Simpson, "developing the critical eye, hand-in-hand with verbal articulation." ■

## University of Washington

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