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# GOING *for* DISTANCE

Technology convergence powers growth of online education



by Pam Derringer

Despite essentially flat college enrollments, the number of postsecondary students taking online courses boomed 17 percent in 2008, to 4.7 million, and the growth shows no signs of abating. The convenience of online courses appeals particularly to older workers seeking new job skills in a tough economy but who nevertheless must juggle job and child care responsibilities, says I. Eileen Allen, an author of the Babson Research Survey Group's seventh annual online survey for the Sloan Consortium.

The distance-education boom, however, also reflects a convergence of AV hardware, networking, and collaboration software technologies that collec-

tively enable teachers to deliver good interactive online education without extensive training or assistance from high-paid specialists. Distance learning is now ready for prime-time adoption. "Conferencing technology in general has gotten better and easier to use, and as a result, people feel more comfortable using it," says Eileen Aitken, Temple University's executive director of computer services.

Temple professor Elizabeth Pfeiffer, for example, teaches most classes in her clinical doctorate program right from her home, with just a laptop, a Webcam, and an Internet connection. The program is considered blended learning because it combines asynchronous classes and synchronous chat rooms

with on-campus classes three times a year. "Distance learning is much improved now because we have better tools and content," Pfeiffer says. "The more we can interface, the more students open up and feel more connected, both to me and to one another."

Only about 5 percent of the university's 230 distance-learning classes are delivered from special videoconferencing rooms, according to Dominique Kliger, Temple's vice provost of distance learning; the rest are provided directly from PCs, like Professor Pfeiffer's. Begun as a faculty-inspired experiment in 1995, Temple's first foray into distance learning started with five classes broadcast from soundproofed videoconferencing rooms on the main

campus, in Philadelphia, to a satellite campus in Harrisburg, Pennsylvania, enabling the university to serve more students at the smaller location.

In a more dramatic consolidation, nine smaller, Canadian universities have expanded their collective courses by forming the Canadian Virtual University, which offers 2,000 distance-learning classes that are recognized for credit by all participating institutions.

At Temple, online class enrollment has doubled in recent years and currently tops 3,500 students a year, a number that is split evenly between graduate and undergraduate students, Klinger says. "We discovered that the learning style and convenience of online learning were important," she says.

Online classes increase students' confidence, offer feedback that is more personal, and alleviate students' scheduling conflicts, Klinger says. In fact, she notes, the university replaced some campus-based summer-school classes with online classes after discovering that the former were undersubscribed and the latter were maxed out.

Adding to the popularity of online instruction are features that make it more interactive, such as Wimba,



Alter Hall, the award-winning center of Temple's Fox School of Business, is equipped with the latest AV technologies.

Cisco's WebEx, and Adobe Acrobat ConnectPro collaborative platforms, Klinger says; Wimba, for example, enables classes to offer live virtual meetings and adds enhancements, such as voice messaging, which is far more personal than the written word, according to Klinger; all it takes is a Wimba hyperlink for an off-campus lecturer to address a class or a student to join a group-tutoring session from a remote location.

Alter Hall, the year-old award-winning center of Temple's Fox School of Business, is a showcase for the latest AV technologies that can be used in class or for distance learning. Collectively, they enable a visiting lecturer with no prior training to activate complex multimedia controls from a single touch screen. AMX, for example, controls direct audio, lighting, and visual signals from several peripherals to several screens, and products like AMX's AutoPatch and Extron (which is what Temple uses) preserve the signal quality and route it to its destination while SonicFoundry Mediasite, in turn, captures the content for storage and/or future Webcasting.



Distance learning at The Arkansas School for Mathematics, Sciences, and the Arts is powered by Tandberg equipment.

## Online-ed adoption growing in high schools

Distance education also is growing rapidly at the secondary-school level, with at least 320,000 students taking courses in one of 27 state online programs, not to mention other initiatives, such as Virtual High School, which has nearly 13,000 students worldwide. The Arkansas School for Mathematics, Sciences, and the Arts, for example, a free, state-funded two-year boarding

school for the state's brightest students, created a distance-education program in 1998 to compensate local districts for the loss of their academic superstars. The online program has its own classes and faculty.

Efforts during the first few years were hobbled by inadequate technology, explains Chris Robbins, the school's director of outreach and distance education: an audio-only conference platform that limited students' vision to the instructor's computer and a whiteboard. This ISDN-based system not only severely restricted interaction but cost thousands of dollars in phone bills every month.

In 2003, Robbins says, the school switched to Tandberg equipment, which combines the video camera and the codec (which converts audio and

video signals from analog to digital and vice versa) into a single desktop-size unit. The Arkansas School has expanded its synchronous online classes from 700 to 3,700 students in eight years, using \$10 million in grants to provide videoconferencing equipment to its expanding cadre of client schools.

The teachers strive hard to replicate a brick-and-mortar environment, including trying to be available after school hours and making occasional in-person visits, says Natalie Humphreys, one of three Arkansas School teachers who won videoconferencing best-practice awards. "The kids raise their hands and ask questions, just like a regular class. If we are enthusiastic and fun, the kids respond." Humphreys hasn't found any difference in achievement between her online Spanish students and those

in regular classes; the only drawback, she says, is that she doesn't get to know her students personally.

### Distance education: the bottom line

As for other drawbacks to online education, the Babson survey showed that distance learning has a way to go to win faculty acceptance, as fewer than half the respondents agreed that it is just as good as conventional instruction. While affirming that online education will continue to grow, Babson's Allen says that asynchronous learning can be more difficult because "you don't have someone you can interrupt" with a question. Online classes require more self-discipline and have a higher dropout rate, but, she concludes, for motivated students, "it's the way to go."

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