

TIPS News



TELECOMMUNICATIONS INFRASTRUCTURE PROJECT STATEWIDE

Volume 3 Issue 4

video.4c.net/TIPS

April 1999

Community Colleges Sell Custom Classes to Businesses

Emily Bazar,
Staff Writer, Sacramento Bee

Armed with slick brochures and sales pitches, California community college officials increasingly are moonlighting as entrepreneurs, offering businesses custom-designed courses as a remedy to the challenges of the 1990s workplace, where employees and technology rapidly come and go.

Community colleges have for decades trained students in vocational skills as varied as cosmetology and electronics. But now, educators are venturing beyond their campuses to hawk and teach classes specifically tailored to businesses in flux -- for a price, and sometimes for profit.

School administrators say they see this growing venture into "contract education" as an outgrowth of their responsibility to respond to changing workplaces, where employees no longer stay for a lifetime and technology quickly becomes outdated.

The trend also illustrates the expanding role community colleges are playing in regional economic development, working with businesses large and small to ensure California's workers are adequately skilled.

"Our job is to make sure employers have the trained employees they need to do the business they can," said Marcy Schaefer, a work force de-

velopment program manager at Sierra College in Rocklin. "That is part of the economic health of the region."

Statewide in the 1996-97 school year, community colleges brought in \$35 million through contract education, providing training to 1,263 businesses. That's up significantly from just two years before, when community colleges created courses for 670

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4CNet Video Migration Project: Update

Ed Smith,
4CNet Project Manager

In early March 1999, the Butte-Glenn Community College District, in conjunction with the California Community Colleges Chancellor's Office, issued its Video Pilot Report entitled "4CNet Backbone Upgrade Project Video Pilot Study and Report" (http://video.4c.net/video_report). The study supported the migration of videoconferencing services onto the 4CNet

network, the implementation of which will begin soon.

All California Community College (CCC) sites have been notified that an installation schedule is posted on the 4CNet Web site (<http://www.csu.net>), and the first few campuses are scheduled for circuit installations in late April. Pending further slippage relative to the readiness of

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- *TIPS News* is a monthly publication sponsored by the California Community College system, and is dedicated to sharing information related to state-funded projects, statewide meetings, educational innovation, individual recognition, and future opportunities for applying technology in education. *TIPS News* is distributed statewide to all community colleges, the State of California Legislature, and to other interested groups and individuals.

- *TIPS News* is produced at the Butte-Glenn Community College District located in Oroville, California under a grant funded by the California Community Colleges.

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- *TIPS News* reserves the right to make changes in any material submitted for publication to meet copy requirements. To be placed on the mailing list, call 530-895-2341 or send e-mail to: video@4c.net.

- Articles appearing in this newsletter and other relevant news may also be accessed on the World Wide Web at:

TIPS <http://video.4c.net/TIPS>
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COMMENTARY

Embracing the Future through New Partnerships - Internal and External

(exerpted from "Distance Learning: The Shift to Interactivity"
EDUCAUSE Professional Paper Series, #17)

Gene T. Sherron and Judith V. Boettcher

A common issue in the establishment and implementation of distance education programs is where the unit responsible for planning and implementing a distance education program reports within the organization.

Many would point out that effective programs are more a result of developing networks of relationships than focusing on line operations, that leaders at the highest levels of the organization need to be involved, and that success is more likely if visible support comes from the president. For example, the University of Nebraska at Lincoln developed what is now known as Nebraska

Corp Net, a program that provides on-site training for business and industry using live broadcast TV. Leadership for this program came from the chancellor through the vice chancellor for academic affairs, and then to the dean of engineering

Yet, the bottom line is that a unit responsible for distance education must report somewhere. Since presidents are busy people, the unit is usually found within one of the institution's operating units. Most

would agree that, if it is a top management priority, the higher its reporting location within the organizational structure, the better.

Where units report within organizations is often an indicator of support and importance to the mission of the college or university. Nearly half of the institutions (48 percent)

responding to a CAUSE (College and University Systems Exchange) survey said that functional responsibility for distance learning reported to the academic vice president/provost. With 32 percent reporting to the head of continuing education. The remaining 20 percent indicated that the program reported to their academic unit, department, school, or college.

Faculty members and administrators must work together in identifying and resolving the issues, policies, and biases that inhibit systemic use of distance education in meeting academic goals. Regardless of the noble motivation, change is something we humans resist. Thus, going into a program of distance teaching and learning will evoke reactions from the

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Two-Way Videoconference Classes at Palomar

College brings college-prep class to local high-school students

Phillip Cerda,
Broadcast Coordinator, Palomar College Educational Television

This spring semester, the Educational Television Department at Palomar College is offering its first two-way videoconferencing telecourse to Warner Springs High School students. The telecourse, "College Success Skills: How to Succeed in College by Really Trying," is taught by Dr. Ken Burns.


Students in Warner Springs view videotapes and complete textbook assignments with their high school teacher before attending telecourse seminars with Dr. Burns via an interactive videoconference system from their high school campus and the

Palomar College San Marcos campus.

Using the PictureTel videoconferencing system, Palomar College is better able to reach students in distant rural areas of its District, as neither the students nor the instructor need to travel for hours to attend classes at one of Palomar's nine educational centers. Students are able to combine stimulating conversation and visual contact with their distance learning instructor while miles apart, and they are able to e-mail and/or fax questions, assignments, homework, tests and quizzes to each other.

The two-way videoconferencing

telecourse at Palomar College is possible with support from Warner Springs High School, The California Community Colleges Chancellor's Office, Palomar College's Instruction Office, and the Educational Television Department. Palomar College is committed to bringing learning opportunities to all California students.

Palomar's Educational Television offers videoconferencing and other services to the College and local community. For additional information contact the Educational Television office at 760-744-1150 ext. 2431 or e-mail us at tvoffice@palomar.edu. 

Custom Classes

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employers at a cost of \$24.5 million.

The majority of the courses are taught by outside consultants or part-time instructors and may be day or night classes, depending on what businesses need.

In Southern California, Glendale Community College beefed up the skills of digital animators at Warner Bros. In Oroville, Butte College is working with Swift Transportation Co. to train truck drivers. In the Sacramento region, the Los Rios Community College District is helping state Department of Fish and Game wardens learn how to endure the elements through an intense five-day survival course in the Sierra.

The Los Rios district -- made up of Cosumnes River, American River and Sacramento City colleges and the newer Folsom Lake College -- began its foray into contract education early, in 1985. It has spent the years since then creating a polished program called "The Training Source" that's more like a business than an academic endeavor.

It involves the equivalent of about eight full-time staff members dedicated to contract education, said Debbie Travis, the district's director of economic development. Three are called program developers -- or "sales staff" -- who use brochures and newsletters to court businesses.

Currently, the district does business with about 50 employers.

"We do operate like a business. . . . We feel we have a good product," Travis said. "We have a diverse work force, and we have a training department that can respond to those needs."

The Department of Fish and Game is one of the district's best customers, paying \$121,000 for about 70 custom classes this year.

Most of the classes deal with technological training, such as primers on updated software programs, said Phillip Sherwood, manager of statewide training programs at Fish and Game.

"It's a matter of keeping up. . . . Los Rios does a very good job with that," Sherwood said.

The juxtaposition of this aggressive entrepreneurship with the more traditional role of community colleges -- providing post-high school vocational and general education -- strikes some as odd.

"I was surprised," said Suzanne Chang, a customer service representative for Schools Federal Credit Union, after finishing a contract education class about finessing

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TIPS_{on} *Online Classes*

Designing Successful Internet Classes

How appropriate is the Internet as a teaching tool? It depends on your instructional goals.

Karla Frizler,
Instructional Designer, City College of San Francisco
Course Developer and Trainer, Aspect Telecommunications

To integrate technology successfully into instruction, teachers need to develop skills in evaluating its appropriateness with regard to teaching goals. Aspects of the Internet, such as the World Wide Web and e-mail, can be valuable teaching and learning tools if driven by sound pedagogical focus. To assist instructors, I have developed a checklist of questions for reflection by all teachers regardless of discipline, student population, or educational institution. The six general areas include:

- Identify your instructional goals
- Determine appropriateness of Internet to achieve goals
- Know who the students are
- Access to the Internet at the institution
- Resources for instructors and students
- Assessment and evaluation of instruction

For purposes of this article we assume that you are analyzing one course at a time, and that it is a course you have taught before.

Identify Your Instructional Goals

- What are your course goals and objectives?
- In which areas do your students generally have difficulty?
- What are some possible solutions, using the Internet?

The first step in any kind of curriculum design is to determine the goals for your course. Though your course content goals will be very specific, there are some general teaching objectives that span all disciplines, including: attitude/motivation, critical thinking, collaboration, problem solving, and application of course material.

Reflect on goals with which your students typically

have success. Why do you think they are successful in these particular areas? What strategies do you employ to help them succeed? Then, think about the course goals that your students have difficulty achieving. How have you addressed these problem areas in the past?

Determining Appropriateness of Internet to Achieve Goals

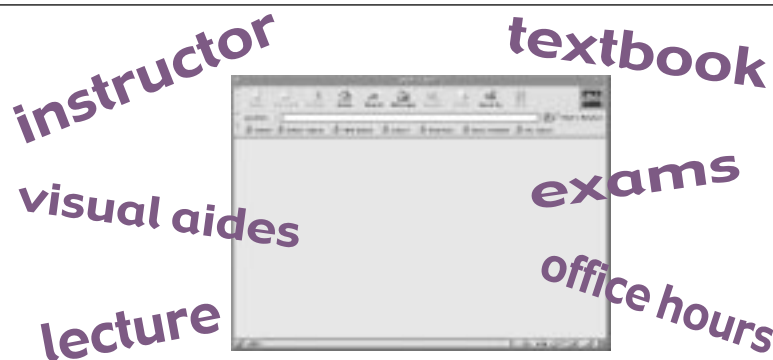
Once you have a clear sense of your goals for your students, think about which functions of the Internet might help address the trouble areas. In general, the following functions of the Internet typically address the corresponding areas:

- E-mail/Bulletin Boards: Collaboration; student-student and student-teacher communication; reading/writing skills; expanding discussion beyond classroom; motivation for writing/natural communication; give all students an equal voice.
- MOOs/MUDs (real-time discussion virtual-reality environments): authentic practice in target language; immersion in language-dependent environment; ownership of learning materials; opportunity for role play.
- World Wide Web: skimming and scanning; research strategies; critical thinking; problem solving; vocabulary; motivation for student writing/publishing.

Know Who Your Students Are

- Have your students ever use computers and/or Internet before? For what purpose(s)?
- How comfortable are they using computers/Internet?

Before introducing any technology to your students, it is wise to do an initial assessment of their comfort and skill level in relation to computers. During training,



teachers can pair up newbies with more experienced students. It is also helpful to know how many of your students have access off campus to a computer for completing course assignments.

Access to the Internet at Your Institution

- Where will your students complete their Internet assignments?
- Is there a computer classroom available for you to use?
- Are there open computer labs for students?

Find out what the guidelines are in the lab(s) you plan to send your students to before giving assignments. Computer lab managers set up policies and procedures which vary widely among institutions, and even within different labs in the same institution. Make clear to lab manager(s) your teaching goals in the event of any problems. Be sure you and your students know where the open labs are, what hardware and software is available in each lab, and what technical support is available to your students (be prepared to answer some questions yourself).

Resources for Instructors

- Is anyone in your department interested in doing a similar project?
- What support (technical and instructional) is available to faculty?
- How can I find online resources in using the Internet as a teaching tool?

Consider collaborating with a small group of instructors teaching the same course or sequence of courses. The group can develop materials to be used by all. Also, find out if there is a faculty lab at your institution that provides training and ongoing support in education technology.

Another suggestion is to take advantage of the Internet. Many instructors worldwide have put their

course materials online (e.g. World Lecture Hall, <http://www.utexas.edu/world/lecture/>).

There are also e-mail discussion lists comprised of teachers interested in education technology (e.g. <http://edweb.gsn.org/lists.html>).

Assessment and Evaluation of Instruction

- Did your students feel they benefited from having an Internet component in this particular class? Why or why not?
- How could you revise the activities/ project to make it more successful?

As with anything new you introduce into the classroom, it is important to assess its value from both a teaching and learning perspective. Distributing a survey to your students at the beginning and end of each semester will give you helpful feedback. (Be sure to include some open-ended questions.) Give yourself time to test your project, make revisions based on student feedback, and test again.

Helpful Hints

- Know the Internet before introducing it to your students
- Start small, then expand your project
- Collaborate with colleagues (locally and globally)

The instructional design principles I have outlined above are simple to follow. Any teacher with creativity, enthusiasm and some amount of access to networked computers can successfully integrate one or more aspects of the Internet into teaching. Good luck and see you in cyberspace!

At press time, Karla Frizler was the Instructional Designer for City College of San Francisco. She now serves as a Course Developer and Trainer for Aspect Telecommunications in Silicon Valley. To contact her directly, please write to: frizzy@jps.net

Embracing the Future

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participants in ways that are hard to rationalize. This is the point: many reactions or responses are not rational, but we should be prepared for them and ready to work through them. Lack of know-how, loss of control, and loss of privacy are grounds for educators' reluctance to embrace distance learning programs. Each institution will need to find its way through the change process to embrace the possibilities that the new teaching and learning paradigm will bring.

Closing Thoughts

The new teaching and learning paradigm will develop in the midst of our current models. In many cases, the process will be almost seamless and transparent, following a gradual shift to active and collaborative learning, and increased communication between faculty and students and between students, and more active involvement of students with real-world complex problems.

The new teaching and learning paradigm will have the following characteristics:

- Most programs will be Web-centric with a Web site for every course. Learning will begin and end in a World Wide Web environment.
- Most programs will have a high proportion of interactivity among faculty and students, between students, and between students and other resources, including human experts.
- Most programs will be able to be taken in a variety of formats using a variety of technologies.
- Most programs will depend primarily on access to resources - human and material - via the network.

- Most students will provide their own computing resources and access to the Internet and the World Wide Web.
- Many programs will offer a choice of some residency events and synchronous videoconferencing.

We can accomplish the shift to this new paradigm most comfortably if we have a vision of what we are trying to create. With vision we will make wise decisions in our investment in terms of technology and in personnel - and in our buildings and program offerings. Without the vision, without the gradual accommodation, severe ruptures will occur. An analogy might be made to an earthquake. The changes that are coming will without doubt shift the very ground and foundations of our institutions. If we move with the shift as each step becomes more apparent, we will not experience a build-up of needs and discomfort. We will make the new paradigm stronger, richer, and more able to meet the needs of society and fill our role.

Each institution has its strengths and weaknesses, and each institution will target future opportunities based on people's visions and energies and opportunities. The needs are great. If we work together and build appropriate alliances between sectors of the society and infrastructure, we will serve our people and supporters well.

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4CNet Video Update

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Qwest facilities and/or availability of telecommunications circuits, all funded CCC sites are scheduled to be installed by the end of the 1999 calendar year.

Those campuses who have not already done so are asked to review and acknowledge the installation data posted on the web as soon as possible. Some specific Web addresses are listed below.

Major portions of the Frequently Asked Questions (FAQ) on the video migration project have been published in previous issues of *TIPS News* (January 1999, February 1999). Additional FAQ's can be found in this month's issue on page 7.

Unanswered questions and related issues should be addressed to Catherine McKenzie (916-322-0833) or Ed Smith (562-985-9417).

• Video Installation Schedule:

<http://www.csu.net/ccvideo/install-sched.html>

• Network-only connection model:

<http://www.csu.net/ccvideo/diagrams/direct-ntwrk-conn.htm>

• Dual network/ISDN connection model:

<http://www.csu.net/ccvideo/diagrams/dual-ntwrk-conn.htm>

• FAQs:

<http://www.csu.net/ccvideo/cc-video-faqs.html>



more 4CNet VIDEO CONNECTION FAQ

frequently asked questions

Q: How will each campus in a multi-site district be connected to the 4CNet Video backbone; and will each campus be able to bridge into the 4CNet backbone for multi-point conferencing?

A: The base connection model calls for direct connection to each community college campus for video. However, as in the data connection model, districts with funding for multiple sites may choose to implement other options. As indicated, the base connection model is a dedicated T-1 connection from the 4CNet hub directly to each authorized campus in a multi-site district and one dedicated T-1 connection to the district office if funded. Bridging will be done via 4CNet, and connections between the district's sites would be scheduled via 4CNet like any other CCC site. Multi-point conferencing will be available through the 4CNet bridges just as for any other individual campus.

One option may be for a multi-site district office to install a video bridge, and their own T-1 circuits to the district's campuses. The district would be responsible for the bridge and use of the bridge would be required for all videoconferences across 4CNet. The bridge could have up to four 384K channels for each 4CNet T-1 video circuit based on the bridge's capacity. Those connections (ports) would provide for access anywhere within the 4CNet video network as well as to other 4CNet video connections outside the network. In this connection model, 4CNet would provide all equipment and circuits necessary to connect the selected central district site to the limit of the total video funding provided to the district by TTIP. Any unused TTIP video funds could be used by the district for other pieces of the installation such as the T-1 connections to each district campus. Any additional funding would be the responsibility of the district including connections to the other campuses, additional equipment, etc. It should also be noted, however, that when two campuses in separate


districts using this bridge model need to connect, that two bridges would be utilized, making such a connection more problematic.

As indicated above, other connection models for a multi-site district may be considered through consultation with the requesting district and 4CNet with final approval from the Community College Chancellor's Office in most instances. If such consultation is required to discuss a specific connection model for your district, please contact Ed Smith at (562) 985-9417 or via e-mail at smithew@csu.net.

Q: How does the new Chancellor's Office Bridge in San Francisco fit into this project?

A: The Chancellor's Office video bridge was donated to the CCC system by PictureTel along with free operational support for two years. It became operative on October 15, 1998. Plans are being developed to incorporate this bridge into the 4CNet Video Network at the end of this two year period. In the meantime, the bridge will function as an ISDN alternative while we phase in campuses to the 4CNet Video Backbone.

The bridge is located in the San Francisco office of PictureTel and is available for Community College use 7 days a week, 24 hours a day. Though the use of the bridge is free, colleges will need to pay for any transport charges from their video system to San Francisco. Multi-point videoconferences are currently limited to seven sites on any given call. The Instructional Resources and Technology unit is monitoring usage to determine if the bridge networking capacity needs to be expanded.

Bridge reservation request forms and instructions can be found at the following Chancellor's Office URL: <http://www.cccco.edu/ESED/IRT/TNT/ccco.html>. 

TIPS News will periodically publish questions and answers pertaining to 4CNet video connection issues. The complete listing of Frequently Asked Questions can be found on the 4CNet web site at: <http://www.csu.net/ccvideo/ccv-video-faqs.html>

Custom Classes

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dissatisfied customers.

"I thought (community colleges) were more for people just coming out of high school or for regular general education classes. I didn't think they would provide (this type of) training."

Community college leaders are hoping that over time, that perception will change. Economic development formally became a mission of California community colleges in 1996, joining the more traditional goals of providing transfer education, on-campus vocational training and special-interest courses such as pottery or Spanish.

Contract education is just one piece of promoting economic development. Community colleges also have programs in place to help people establish and develop small businesses, international trade and biotechnology firms.

In general, contract education isn't funded by the state. Officials say they generally break even for what they charge businesses, but some bring in a little extra that is funneled back into the colleges.

Last year, the Los Rios district brought in about \$1.25 million and Sierra College raised about \$350,000. At Sierra College, the cost of custom-made training averages about


\$120 per hour.

Tom Nussbaum, chancellor of the state community colleges system, has said he would like contract education to be partially subsidized by the state, but there's no formal proposal on the table.

That idea is unsettling to some faculty members, who worry about straying too far from community colleges' traditional role.

Bill Scroggins, president of the Academic Senate for California Community Colleges, said higher education already is underfunded and "to start using taxpayer money to go directly to supporting business ventures . . . I don't think that's something the faculty are very enamored of."

The danger, said Bill Pickens, executive director of the California Citizens Commission on Higher Education, is that the colleges will get carried away with the prospect of making money.

"My only concern is that this not become so large that it takes away from the primary educational mission of the community colleges," he said. "But as long as there's a balance, that the primary educational mission remains the central focus, that's fine." 

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