CVU Centers Drive Distance Education Into the Future

Debbie Olson
Specialist, CCCCO

Future trends can be anticipated to some degree, but policies and programs seldom lead or even keep up with change, especially where technology is concerned. One exception, however, might just be in our own backyard.

By the end of the June, four California Community College (CCC) Virtual University Regional Centers and one Statewide Staff Development Center will have been selected to receive grants totaling $2.9 million in state funds and will be well on the way to becoming a reality.

These Centers were developed as an infrastructure to expand technology-mediated instruction and for use as a campus networking system to provide access and training for students. The four Regional Centers will provide support and direction in the development of "virtual" course offerings and the Statewide Center will be dedicated specifically to staff development, training, and maintaining an interactive catalog of distance learning offerings on the Web.

"The Centers are an integral part of meeting the realities of current demands and the possibilities of future opportunities," said Bobbie Juzek, Dean of Systems Advancement and Resource Development and the individual tasked with the oversight of

Online Student Service Center at Coastline

Rendell Drew
Dean of Students, Coastline College

Cheryl Chapman
Educational Technologist

In the fall of 1997, Coastline College was awarded a two-year TMAPP (Telecommunications Model Applications Pilot Projects) grant from the California Community Colleges Chancellor's Office (CCCCO) to design, develop, implement, and evaluate online registration, counseling, and advisement services. One objective of this project was to draft a plan and develop a model that could be replicated by other colleges interested in providing online student services.

The target audience to be served by the Online Student Services Center (OSSC) includes distance education and working adult students, non-native English speaking students, and advanced placement/college preparation high school students.

Services Offered

Services will consist of online registration forms, a Web-based Career Planning and Transfer Guide, the

IN THIS ISSUE

- **W3C Releases Web Accessibility Guidelines**
  - the web is for everyone!

- **TIPS on Video Conferencing**
  - guidelines for effective use in distance learning (**part I**)

- **Tech Expo 99 Report**
  - an exciting and informative conference on directions in technology and education

NEXT MONTH...

July/August summer issue featuring:

- CVU Regional Centers awards
- TIPS on Video Conferencing (**part II**)
- A Team Approach to Online Courses
- TMAPP project updates
- ... and more!

Web Consortium Announces Accessibility Guidelines

WAI Provides Definitive Guidance for Web Access for the Disabled

The World Wide Web Consortium (W3C) recently announced the release of the "Web Content Accessibility Guidelines 1.0" specification. As a W3C Recommendation, the specification is stable, contributes to the universality of the Web, and has been reviewed by the W3C Membership who recommend it as the means for making Web sites accessible. The W3C encourages information providers to raise their level of accessibility using this Recommendation.

The Web Content Accessibility Guidelines establish stable principles for accessible design, such as the need to provide equivalent alternatives for auditory and visual information. Each guideline has associated checkpoints explaining how these principles apply to specific features of sites. For example, providing alternative text for images ensures that information is available to a person who cannot see images.

The guidelines are designed to be forward-compatible with evolving Web technologies, yet enable sites to degrade gracefully when confronted with legacy browsers. Specifics on how to implement the checkpoints with the latest versions of mark-up or presentation languages such as HTML, CSS (Cascading Style Sheets), or SMIL (Synchronized Multimedia Integration Language) are described in a parallel "Techniques" document, to be updated periodically.

As with other areas of the W3C Web Accessibility Inititive, these guidelines are an outcome of a collaboration of industry, disability organizations, accessibility research centers and governments working together to identify consensus solutions for barriers that people with disabilities encounter on the Web.

> *The guidelines are designed to be forward-compatible with evolving Web technologies, yet enable sites to degrade gracefully when confronted with legacy browsers.*

"The W3C has provided a unique forum which has allowed us to bring together experts from industry, research and practice in a way that has not been possible before," explained Gregg Vanderheiden, Director of Trace Research & Development Center at the University of Wisconsin, Madison, and Co-Chair of the Web Content Guidelines Working Group. "The result is a set of guidelines that is more comprehensive, technically sound and practical than anything possible before. In addition, because the guidelines are built on the work and participation of virtually everyone who is active in this area, it provides us for the first time with a definitive set of guidelines that can serve as a reference for the field."

For more information on the W3C, contact Janet Daly at *janet@w3.org* or 617-253-5884, or visit the W3C Web site at *http://www.w3.org*.

TIPS on *Videoconferencing*

PART ONE

Beware of Videoconferencing in Distance Learning Clothing

Ted Hunter
Education & Government Manager, VTEL Corporation

It has been said many times that the "secret of getting ahead is getting started". While most of us would probably agree with this statement, those of us who have made a career out of real-time, instructor-moderated distance learning, would also quickly add, "if you don't plan to succeed, plan to fail". With the Information Age's emphasis on technology in learning, the counsel in both these statements has never been more relevant.

In the final analysis, the ultimate goal of any learning institution should be servicing the needs of its primary customer: the student. In that context, real-time, instructor moderated, distance learning can effective tool to increase the reach and relevancy of learning in the community college system, however, in that same context, it is important to understand that a videoconferencing system and a true distance learning system are not the same thing.

Let Your Customer Be Your Rudder

Why would any student be satisfied with a camera pointed at the instructor and the whiteboard as the primary education delivery scheme? The guiding principle, or "rudder", in any distance learning implementation should be the needs of the student. The instructional goals and pedagogical needs of student provide an excellent guide for distance learning technology investment, making any investment go a great deal further, while helping to eliminate the possibility of unnecessary acquisitions. In other words, let the application drive the technology, not the reverse.

There is an easy way to get a good feel for incorporation of technology into the distance learning application; audit a distance learning class, both as a near-end student, (a student in the same room as the distance learning instructor), and as far-end student, (a student not co-located with the instructor). This can be accomplished at a number of locations throughout the state.

As you put yourself into this environment from the student's perspective, consider the following:

- Are the **instructional goals** being met?
- What are the **audio characteristics**?
- What are the **video characteristics**?
- Are the available **equipment** resources being used to their utmost?
- Are the **room characteristics** conducive to learning?

Lessons Learned

Fortunately, interactive distance learning technology has begun to mature throughout the country. It has matured to the point where the quality of the distance learning programs is becoming a measure by which colleges and universities now compete. By leveraging from the current state of experience and research, it is possible to summarize some of the answers to the questions posed above as a means of providing guidelines for the optimal distance learning environment.

Ultimately, the measure of any learning program is its ability to meet the instructional needs and goals of the student. In distance learning programs, this has some special considerations, such as:

1) What does the institution want to accomplish with its distance learning program,
2) What classes will best support those goals,
3) Who is best suited to teach in such an environment (not necessarily the instructor with the most experience),
4) What is the optimum class size, and
5) What is the best approach to delivery of the content and curriculum, both in terms of teaching methodologies and in promoting student interaction.

Establishment of an institutional goal early in the process distance learning helps to foster the much

TECH EXPO 99

Teaching, Learning, Technology, and Change

Lou Albert,
Director, Staff Development,
Los Angeles Valley College

Tech Expo 99, held recently at Los Angeles Valley College, was the Los Angeles Community College District's (LACCD) second annual instructional technology conference. In joint sponsorship with the District Academic Senate, District Staff Development, and the LACCD Distance Education Task Force, this highly successful event included over 250 participants, representing over 20 Community College campuses. This was an opportunity to embrace the challenge of expanding and enriching their knowledge and expertise in academic-based technology.

The Tech Expo 99 theme was "Teaching, Learning, Technology, and Change." Track sessions promised to stimulate excitement and provide solid information to all community college educators interested in the impact of instructional technology in education. "It was a great event. A lot of thought and work went into the event and the attendees I talked to were favorably impressed," said Catherine McKenzie, of the California Community Colleges Chancellor's Office (CCCCO).

Following last year's successful program, organizers focused on providing a forum for the exchange of ideas on using alternate delivery systems. The event offered interactive environments, bringing together faculty, exhibitors, and instructional leaders to share in the California Community Colleges (CCC) statewide vision.

Twenty Department of Education Officials from various provinces in China also attended the Expo. The group is currently visiting the California State University, Northridge campus where they are studying the educational process in the United States.

The event offered an extensive program that included vendor demonstrations, interactive workshops, and a keynote panel comprised of CCCCO technology leaders Lebaron Woodyard, Cher Weahunt, Catherine McKenzie, Jose Michel, and Ric Mathews. The panel discussion covered topics such as balancing academic tradition with innovative change, insuring quality of instruction in the digital or virtual classroom, protecting the integrity of curriculum, changing roles of faculty, intellectual property and copyright laws, technology maintenance and upgrades, cooperative purchase opportunities, and the changing roles of faculty and administration.

Dan Estrada, from the Community College California Virtual University Cooperative Purchase Program, demonstrated affordable videoconference equipment designed to provide high quality capabilities for outreach, distance education, and job training.

John Hartzog, from California State University, Northridge, provided a two-session lab experience in the newly opened campus Lab for Academic & Instructional Resources (LAIR). Dr. Hartzog, and part of his renowned Cyber-Seven Team, discussed their collaborative work in developing and teaching online courses. In addition, the Team offered an approach in dealing with central support problems in creating and maintaining reliable Web

Georgia Mercer, member of the Board of Trustees for Los Angeles Community Colleges,

servers, administering an effective set of Internet teaching tools, and developing inexpensive resources for software and teaching tools.

Dave Diaz, a faculty member from Cuesta Community College, provided two resourceful sessions on how faculty can use a personal Web site to supplement a traditional course offering and deliver educational content in an online course. Dave's presentation emphasized using multimedia effectively when creating a presentation.

Linda Delzeit, faculty member at Los Angeles Trade Technical College, provided a demonstration on the @ONE Web location during a bridged videoconference with KCET public broadcasting and Sacramento City College. She was able to utilize the campus Professional Media Resource Center, a model state-of-the-art multimedia site, on the Los Angeles Valley College campus.

A vendor track provided an opportunity for participants to become familiar with products and services developed by various educational manufacturers. Many of the exhibitors showcased their technology products coupled with an interactive presentation that offered solutions and enhancements to enrich specific institutional needs. Vendor participation included representatives from IBM, Apple, Advanced Systems Technologies, Archipelago Productions, Embanet Corporation, New Horizons Computer Learning Center, Pacific Bell - Education First, Prentice Hall Publishing, Minnesota Western, Steck-Vaughn Publishing, and others.

The Community College Foundation's Multimedia Bus was also a part of the day's activities. This vehicle has made numerous visits throughout the state to demonstrate the advantages of multimedia instructional technology. Visitors to the bus had the opportunity to view state-of-the-art equipment and training options.

In a collaborative effort with the State Academic Senate and Faculty Association of California Community Colleges, Los Angeles Valley College conducted a six-hour videoconference, bridging KCET, Los Angeles Valley College, and Sacramento City College. This experience clearly demonstrated how distance learning could effectively bring

Lebaron Woodyard, CCCCO Dean of Instructional Resources and Technology, comments during a panel session at TECH EXPO 99

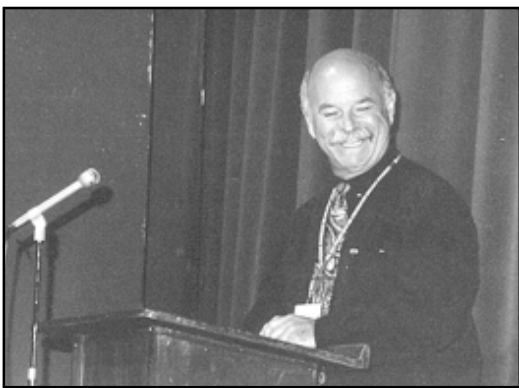enriched content and discussion to remote locations.

Alan Sacks, instructor of broadcasting at Los Angeles Valley College, delivered a lesson from the studios of KCET on "The Disney Effects." Alan is the Executive Producer of a new Disney Channel film to be released in the fall 1999. The story, rich with technological wonder, is about a family living in a virtual home

By utilizing partnerships with presentations from CSU Northridge, community colleges, and KCET, the event met the challenge of delivering quality presentations to its intended audience and bridging educational entities with greater potential for future partnerships. A promotional video will be developed this summer to highlight Tech Expo 99.

Through a shared vision of an expanding learning community and the richness of developing technologies, the prospects of Tech Expo 2000 becomes an exciting 'new millennium' challenge. You may be asked to help us! ✄

Ric Matthews, faculty member from San Diego Community College District, and coordinator for the Community Colleges Technology II Plan.

Coastline

Student Educational Plan (SEP), the college schedule, and catalog. Interactive, real-time counseling sessions will be offered via the Internet, Coastline's Edu-Cable channel, and high school and industry-based videoconferencing systems. E-mail and listservs will be used to provide asynchronous personal or group counseling and advisement services. Existing counseling/orientation videos are being adapted for Internet and cable delivery. College transfer events will be cablecast live with opportunities for call-in questions from students.

Desktop videoconferencing equipment has been installed in the adjunct counseling office located at the Coastline College Center to extend the options for students to contact a counselor. There is also an effort to determine how improved video streaming technology can be used for delivering advisement and counseling to students at a distance.

Project Advisory Committee and Task Force

One of the first steps involved in the process, was to develop an Advisory Committee and Task Force to complete the objectives of the grant. Rendell Drew, Dean of Students at Coastline College, and Project Director of the grant, assembled the Advisory Committee to include one member from each department of the college. Multiple departments were involved to inform the college as to how the project may affect each department.

Students will be accessing information in a different way, and the more informed the college is, the more assistance they can give to the students. Eventually, the Online Student Services Center will be integrated into the college's main Web site.

The Task Force consisted of a smaller group of individuals from Computer Services, Student Services, Distance Learning, and the Office of Instruction, who worked together to complete the assignments and coordinate the activities. Contact with the district office was also important to ensure that the online forms, processes, etc., would complement the new computer system being implemented by the district.

Distinguishing Between Advisement and Counseling

The next step was to gather the counselors and hold several sessions to create content for the Web site. Cheryl Chapman, an adjunct professor at Coastline, was hired as a professional expert to implement this process and develop the OSSC website.

In these sessions, they discussed the difference between advisement and personal counseling, so the information on the Web site would be beneficial for all students, and those requiring additional assistance could find the materials or services they need. The technology was explained and ongoing training sessions were scheduled throughout the project. The counselors will learn the skills necessary to use e-mail, the Internet, videoconferencing and online forms. As one may imagine, the road to total acceptance was not entirely smooth, but interest and understanding grew as the training continued and the project unfolded. Demonstrations were helpful to explain how the equipment would work in the field.

The Storyboard and Frequently Asked Questions

In subsequent meetings, Cheryl met with the counselors to create an outline of the Web site. A table of contents was established, and the counselors provided content for their own contact pages (using a template), the Career and Transfer Center, and the Frequently Asked Questions (FAQ's) concerning advisement and counseling.

The Financial Aid department provided content for their section of FAQs, and the appropriate links were added for the college catalog, schedule, career and transfer guide, and distance learning department. Sections pertaining to Spanish and Vietnamese translations, students with disabilities, the message from the dean, and general college information were also incorporated.

Decisions concerning who will provide future content and maintenance are still under way. This will be an integral part of the project's future.

Online Registration Prototype

While the counselors were busy gathering information, an outside professional expert, Brian Schiffman, was hired to design and program the prototype for an online registration form and Student Educational Plan (SEP). The Internet forms store the data in a database, which

Coastline

can be integrated into the district or college system.

Several levels of access are built into the system for the student, the counselors, admissions personnel, the registrar, and the dean. The student can request a password, register, submit a working copy of a proposed SEP, view the document, but can not change it. The counselor reviews the working copy, contacts the student and can then make recommendations and changes to the SEP, but not the registration information. The registrar is able to accept a registration form and process it.

At this point in the beta testing, the dean has access to view and edit all documents, such as entering information for a new counselor. In order for a college to implement this type of online registration, there should be one database system so the information can be integrated and cross referenced, creating a more seamless and less redundant process.

Following an evaluation period with counselors, distance education students, administrators, and others, necessary revisions will be made and a final recommendation will be given in the summative evaluation to the Chancellor's Office.

A Home for the OSSC

One of the earlier challenges was to find a cyber-home for the Online Student Services Center. As in many colleges, server space is a commodity, so finding some 'virtual' space was a priority. The computer services department, under the direction of Barbara Meguro, was able to locate a server that could host the prototype Web site, while the registration database was hosted off-site during development the beta testing period.

Colleges planning to include online student advisement and counseling services, need to plan in advance to have robust servers and backups with reliable access. If the services are available, more students will be accessing the site, and there will be greater demands on the server. A new Dual Pentium III 450 Internet/Application server has been purchased and will be installed before the end of the Spring 1999 semester, to move the database to the college and continue the beta testing phase.

Presently, the temporary home of the prototype site is *http://vcs.ccc.cccd.edu/ossc*. Comments should be directed to Cheryl Chapman at *chapmanc@pacbell.net* or Rendell Drew at *rdrew@cccd.edu* .

Videoconferencing

needed support that every embryonic program needs. This goal should be set by administration, faculty, and students, and recognize that, from an interactive distance learning perspective, the classes initially chosen should the ones where the student-base would either desire, or require, a high degree of real-time interaction with the instructor. Other considerations undertaken by this group, would be factors such as which rooms would be used, and/or what other facilities, such as compatible educational and business building could made available.

With regard to instructor selec-tion, it should come as no surprise that teaching in this medium will not make a bad, or even mediocre, instructor better, but for the instructor who really understand the potential for this environment, it can produce remarkable results.

Class size is also critical factor. While obviously driven by institutional requirements, most mature distance learning programs have settled on maximum class sizes at each site of about 20 to 30 with a maximum of three to four site per class. This number seems to promote both a high degree of interactivity, which is essential in this environ-ment, as well as provide for comfortable facilities.

Naturally, one of the critical success factors to any learning program is its educational content. In the Information and Nintendo Age, the technology to deliver this content at a distance should provide the instructor with the opportunity to utilize the multitude of computer and Internet-related multimedia titles available.

Part Two will appear next month, and will cover Audio Characteristics, Video Characteristics, Equipment, and Room Characteristics.

CVU Centers

the Centers.

Each Regional Center will promote distance learning efforts within its region and share information and expertise with other campuses and Centers. The ultimate goal behind the Centers is to make it possible to do the job of educating much more imaginatively and efficiently with this new collaboration and commitment. Emphasis will be on shared resources and development whenever possible, in order to avoid duplicating efforts.

As one of the grant applicants states: "The greatest risk to the CCC expansion would be for institutions to continue their separate paths to development and delivery of online courses, thereby producing content that is more costly and less superior than that which could have been created through collaboration. The Regional Center needs to place its highest priorities on getting colleges to work together to address problems." Adds Juzek, "If distance learning is a driving force, then the Regional Centers are the engine for educational mobility."

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Contribute to TIPS *News*

TIPS *News* focuses on projects funded by the California Community Colleges Chancellor's Office that involve technology in education. **TIPS** *News* also features other issues concerning distance education in California, including videoconferencing and online learning.

If you have an article suitable for publication in **TIPS** *News* or are interested in writing material for publication, contact:

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