## TELECOMMUNICATIONS INFRASTRUCTURE PROJECT STATEWIDE

Volume 3 Issue 9

#### Growth of Distance Education and the Role of the Chancellor's Office

Jose Michel
Distance Education Senior Coordinator, CCCCO

The following is an edited exerpt from the workplan of the Distance Education Unit at the California Community Colleges Chancellor's Office

istorically, the Chancellor's Office role in promoting distance education was limited. This is about to change. The emergence of the California Virtual University (CVU) helped to provide a centralized venue for distance learning course offerings in the community colleges. It provided a common marketing vehicle that the community col-

leges utilized significantly compared to the other systems participating in the CVU.

Within the first three semesters of operation, the number of community colleges participating in the CVU grew from approximately 30 to over 65, and the number of distance learning courses listed on the CVU Web site grew by over 450 percent. With the advent of the electronic catalog of the California Virtual University, community colleges collectively were able to demonstrate they were major provid-

ers of distance education.

The number of distance education course sections offered by California Community Colleges increased by 3 percent from 1996-97 to 1997-98\*. As a result, the number of students enrolled in distance education courses increased by a corresponding 3 percent during this same period. The growth in the number of students enrolled in distance education courses from 1996-97 to 1997-98 (2,613) accounted for 17 percent of the growth (continuted on page 6)

November 1999

#### **Statewide/Rural Regional Center Conference**

Paul Meyers Project Director, Statewide/Rural Regional Center



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- CEO Institute Aims to Educate
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#### **NEXT MONTH ...**

- The Flashlight Project - Field Report

eptember 9 marked the first face-to-face meeting of the staff and faculty members involved in the beginning stages of the California Virtual Campus Statewide/Rural Regional Center.

The two day conference held at Bakersfield Community College was an opportunity for participants to meet one another, and receive training that will assist the center in serving the 35 community colleges covering the length of the state.

The conference was planned and implemented by the partnership of

Paul Meyers, Director of the Regional Center at Cerro Coso College in Ridgecrest and Yvonne Maller of the Los Rios District in Sacramento. The conference covered key issues and introduced many skills to the four lead faculty mentors, two high school mentors, and other regional staff in attendance.

Thursday morning began with an introduction of all those present, allowing participants to put faces with the hundreds of emails that have been sent over the past year.

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- TIPS News is a monthly publication funded by the California Community College's Chancellor's Office, 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

# TIPS on Grant Resources

## Community College Program Analyst, CCCCO

he Instructional Resources and Technology (IRT) unit in the Chancellor's Office is currently awarding California community colleges \$28 million annually in the form of grants or allocations. However, when spread among 72 districts, 107 colleges, over 60,000 teachers, and 1.4 million students, this makes only a small dent in our system's technology needs.

To meet these needs, the IRT unit continues to work with the Governor and the Legislature to identify more State money, but colleges also need to make more of an effort in finding funds for technology.

The Chancellor's Office has provided the following list of Internet sources available for searching for grants or gaining help in writing grants.

#### **Catalog of Federal Domestic Assistance** - http://www.gsa.gov/fdac

Government-wide compendium of Federal programs, projects, services, and activities which provide assistance/benefits to the American public. It contains financial and nonfinancial assistance programs administered by departments and establishments of the Federal government. It has an excellent search feature.

Council For Resource Development - http://www.ppcc.cccoes.edu/crd Council for Resource Development (CRD) is an affiliate and major council of the American Association of Community Colleges. CRD's mission is to educate and advocate for community college leaders dedicated to securing resources to increase the effectiveness of the institutions and students they serve

**Distance Learning Funding Source Book** - http://www.technogrants.com Comprehensive 450+ page reference offering a wealth of information about funding sources, funding trends and priorities for telecommunications and the new media

#### Foundation Center - http://fdncenter.org

Independent nonprofit information clearinghouse whose mission is to foster public understanding of the foundation field by collecting, organizing, analyzing, and disseminating information on foundations, corporate giving, and related subjects.

#### **Grantsmanship Center** - http://www.tgci.com

Offers grantsmanship training and low-cost publications to nonprofit organizations and government agencies

National Science Foundation - http://www.nsf.gov/home/grants.htm Funds research and education in science and engineering, through grants, contracts, and cooperative agreements. The Foundation accounts for about 20 percent of federal support to academic institutions for basic research

#### US Department of Education Grant Programs -

http://ocfo.ed.gov/grntinfo/forecast/forecast.htm Forecast of funding opportunities under the Department of Education discretionary grant programs

Please send additional listings, questions, or suggestions to: Charles Mawson 916-327-5902 cmawson@cccco.edu

#### **CEO Institute Aims to Educate**

Susan Obler Grant Development Office, Rio Hondo Community College

Richard Community College District was recently awarded a \$150,000 Telecommunications Model Applications Pilot Project grant (RFA 98-0662) from the California Community Colleges Chancellor's Office to establish a two-day institute designed for Chief Executive Officers (CEO) in the California Community Colleges in the areas of telecommunications and technology.

This one-year project will provide two institutes for CEO's to understand the language and the critical issues in Information Technology (IT). Higher education institutions are increasingly dependent upon IT systems; campus chief executives need timely information and strategies for planning and funding decisions.

The two-day institutes will include experienced leaders from public and private systems in California and other states. Western Cooperative for Educational Telecommunications, an affiliate of WICHE (Western Interstate Commission for Higher Education), will contract for full services of the institutes including curricula, materials, speakers, lodging, and travel. This group currently provides high-profile summer institutes for

education programs.

The institute venues and dates are 1) southern region, the Kellogg Conference Center in Pomona, March 9 and 10, and 2) northern region at the Berkeley Marina Radisson, March 16 and 17). Sally Johnstone, President of Western Coop-

managers of distance

erative, is the primary facilitator. CEO institute expenses will cover meals, accommodations, materials, and airfare for

those traveling more than 200 miles from their college to the institute in their region. Mileage or travel to the institute outside their region must be paid by the CEO's district.

The CEO's Advisory Committee, cochaired by Jess Carreon of Rio Hondo and Martha Kanter of DeAnza College, will review and confirm topics of the proposed institute curriculum. Robin Etter Zuniga, Associate Director of the award-winning national Flashlight Project, will conduct the project evaluation. An experienced team has provided input for this proposal and the institute design.

Rio Hondo will monitor and direct the project within its scope of leadership experience with Distance Education, including its Virtual College, the California Virtual Campus (CVC) LA Regional Center, and the FII Flashlight Project.

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### **Identity Security and Testing Issues in Distance Education**

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istorically, many distance education programs have served students who needed the flexibility and convenience of "remote" instruction but who actually resided near the college. However, now that technology has made it possible to serve students living at a true physical distance, distance education programs are faced with such challenges as providing student and learning support services and ensuring the quality and integnty of the instructional process.

One aspect of ensuring quality is finding ways to document student identity as related to course assignments and testing. In short, faculty need to know that the individuals receiving course credit are, indeed, the individuals who do the work! Obviously, this knowledge is essential if faculty are going to provide a highquality instructional program with documented, positive outcomes. At Dallas County Community College District (DCCCD) we have found some solutions to the problem of documenting the identities of our distance learning students.

#### A Need for Both High-Tech and Low-Tech Solutions

The nature and size of the Dallas program required that solutions employ both high and low-tech delivery systems and be accessible to students regardless of their physical location. Currently, the DCCCD distance education program uses both high and low-tech means for the delivery of instruction and services. These methods include electronic and U.S. mail, satellite, cable, ITFS (Instructional Television Fixed Service), rental/lease, audio bridges, telephones, voice mail, and fax. Distance instruction takes the form of pre-produced video-based courses; live, interactive classes; and Internet-based courses both with and without significant video components. With the exception of the live teleclasses, all instruction and services are provided in an asynchronous manner. Distance enrollments are in excess of 12,000 per year, with roughly 20 percent of the students residing beyond the service area of the DCCCD colleges.

#### **Defining the Testing Security Issue**

While it is important to ensure academic honesty, it often seems that distance educators and their critics are spending a great deal of time and resources directly attending to the problem of the documentation of student identity, particularly in regard to test taking. This may be a case of stomping on ants in the front yard while elephants are running through the house. However, during the past year, we have attempted to address the testing and identity issue in the context of providing quality instruction and adequately measuring learning outcomes.

As a part of that process, we found it useful to answer a series of questions about the distance education

courses. First, we asked questions about the objectives of each course and the best ways to measure the achievement of these objectives. What are students to learn in this course? What is considered evidence of learning in this course? What are the best ways to measure learning in this course? What ways are currently being used to measure learning? What are the strengths and limitations or challenges associated with these methods? Are there a variety of means used to assess learning? Are there enough measures of progress? Is the emphasis on testing, either proctored or unproctored, appropriate?

Then we asked questions about what changes could be made in the measurement process. Does the new medium, or do new technologies, offer new or additional ways for students to display evidence of learning?

Additionally, we assessed the level of risk for cheating on tests in the distance learning courses in question. Any perceived advantage to cheating is decreased in courses that prepare students for state boards or other certification exams, as students know that they will be held accountable in future, highly secured testing situations. Similarly, the advantage is decreased when the course in question is a prerequisite for another required course or

when the student will have to take and pass a departmental exam to get credit.

Since different solutions to the problem of student identity in tes taking situations may require different levels of resources, answers to the question of test cheating risk may provide valuable planning information. Less stringent, more affordable testing processes may be developed for courses with low risk for cheating, thus saving testing resources for courses determined to have high risk.

Finally, we asked how many students would need to be served by our solutions to the issue. How will the physical location of students affect our solutions? Will students have access to any technologies? If so, what?

#### **Rethinking How We Assess Student Learning**

Answering these questions requires exploration and thoughtfulness. The responses developed by the Dallas distance education faculty and staff not only helped in formulating solutions to the general issue but also enabled many faculty to revise and enrich the learning assessment strategies being used in their courses and to make better use of available technologies. Papers, discussion responses (electronic or telephone), homework assignments, portfolios, and projects are used to enhance the evaluation picture that traditional testing gives the instructor. Faculty report that in many cases they have also incorporated these changes into their campus-based classes.

Once we examined our programs and courses and made appropriate modifications in the methods we used to assess learning outcomes, we discovered that we could reduce the amount and complexity of proctored testing in our distance learning courses.

## DCCCD's Solution to the Testing Security Problem

For Students in the Dallas County Area

For students in the geographical service area, Dallas offers seven "secure" test centers. A "cross campus" testing process allows students to test at any one of these testing centers at the seven colleges in the district,

regardless of where they originally enrolled for the course. This process works reasonably well, in that approximately 80 percent of our distance learners reside within or very close to Dallas County. Currently, faculty send exams to test centers via secured interdistrict mail and receive the exams back at their home test center. There is some risk in transporting paper exams, inasmuch as test centers administer literally thousands of tests each semester. Getting test results back to the student in a timely manner is also difficult, as the exam must be sent to the instructor's home campus to be graded. The process will be converted to an electronic one within the next year, eliminating the need for using interdistrict mail and reducing the risk of loss and the amount of time required for the grading process.

For Students Truly at a Distance: Proctored Exams and Web-Based Testing

For students residing beyond the service area and students who are unable to travel to the college for physical or other reasons, Dallas requires proctored exams. Proctored testing can be arranged in just about any place in the world. The DCCCD process requires that the learners arrange for and, if necessary, pay for the proctor. Guidelines for determining appropriate proctor nominees and testing environments are distributed to students and are posted on the Dallas TeleCollege Web site for students to read and copy at dallas.dcccd.edu. All necessary forms are provided, and course descriptions provide information on any special testing requirements, such as the use of a VCR or audiotape player. Proctors nominated by students are subject to approval by the faculty member teaching the course. The course instructor then deals directly with the proctor, using whatever technologies are at their disposal. Tests may be mailed, faxed, or handled electronically through the Internet, depending upon what is appropriate and available.

A second strategy to deal with testing for the truly distant learner centers on Web-based testing. This offers the "anytime, anyplace" type of flexibility students need with some new twists. Web-based testing software allows

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#### **Distance Education Workplan**

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of students in all community college enrollment (15,335) in the same time period $^*$ .

The growth in interest regarding distance learning within the community colleges and the changes in regulations have created an expanded role for the Chancellor's Office as an advocate for the system on a number of these issues. If the one-year trend of distance education growth continues at its current rate, the role of distance education becomes key in addressing the overall system growth issues that will be presented by "Tidal Wave II."

#### Curriculum and Accreditation Issues

Among the issues being discussed are quality assurance for distance education courses and programs, including program assessment issues. Other critical policy areas include student support services at a distance, human and financial resources for training, and distance education program development, governance, and mission in a virtual environment.

#### California Community Colleges Satellite Network

Distance education staff will work with the Telecommunications Special Project (TSP) California Community Colleges Satellite (CCCSAT) Network. This project will implement a digital satellite network capable of delivering up to ten channels of programming across the state, western region, nation and globe. The CCCSAT Network will enable each of the systems' colleges to be content providers to the world. The implementation of CCCSAT will significantly increase the access of students in California to distance education.

## Telecommunications Technology Infrastructure Program Collaboration and Technology Plan II

Distance education staff collaborate with telecommunications staff responsible for coordinating the TTIP in the areas of human resources technology training, faculty training, and planning issues for the statewide data network (4CNet) as they relate to distance education (i.e. satellite, video conferencing). The Chancellor's Office is working with the GartnerGroup consulting firm to develop a long-term technology plan that focuses on the use of telecommunications and technology in instruction and learning. The "Technology Plan II" will serve as the foundation for future budgetary requests to the Legislature for local campus infrastructure and instruction and learning applications. This work is being conducted via the Tele-

communications Technology Advisory Committee (TTAC), and and will be submitted into the Consultation Process and the Board of Governors upon completion.

#### Assistive Technology for Disabled Students

Among the current activities staff are involved with is the Chancellor's Office Task Group on Distance Education Assistive Technology. This initiative is focused on providing accessibility for distance learning to the disabled and to meet the Americans with Disabilities Act (ADA) requirements. Staff is working to identify methods of instruction, access needs, and accommodations for disabled students in a virtual environment.

Staff are working with the CVC (California Virtual Campus) staff in the implementation of the regional centers that will provide assistance in developing and expanding the use of Internet-based courses. They are also working with community colleges to promote the development and operation of distance education programs in underserved and rural areas.

#### **Student Support**

Provision of support services for distance students is the next frontier in promoting successful distance learning programs. The issues are extensive in addressing student access to computers, access to financial aid services, admission, counseling, assessment, orientation, tutoring, joint community college/K-12 partnerships in adult education, developing distance learning as a means of reducing time-to-degree/transfer, negotiating transfer and articulation of course agreements, providing basic skills and ESL courses and non-credit education at a distance.

#### Fiscal Issues

The financing of distance education program expansion has emerged as a critical issue. Currently, distance education courses are compensated based on the method of delivery and whether the method is fully interactive or not. Course sections using fully interactive delivery methods are paid at a higher rate. Staff are reviewing Title 5 regulations regarding student attendance accounting and positive attendance issues as they relate to barriers for colleges building out distance education programs. Other related fiscal issues include residency determination for distance education students, and tuition policies, including both inter- and intra-state reciprocity.

\*Source: CCC, Chancellor's Office MIS 1996-97 and 1997-98 data reports

#### **Regional Center Conference**

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The first instructional session began with a presentation from Wayne Chenowith from the De Anza High Tech Training Center. His presentation on accessibility issues introduced many products and services available to colleges. His presentation also included many online resources and product demonstrations. A list of the resources that were presented can be found on the web at <a href="https://www.cvc4.org/web\_pages/accessibility.htm">www.cvc4.org/web\_pages/accessibility.htm</a>.

After a short break, Eric Miraglia, Senior Consultant at The Information Management Group began the Microsoft Mentor Program Training. The first lesson was an introduction to Microsoft NetMeeting. This demonstration introduced the many features and ease of use of this product. Using synchronous chat, a whiteboard feature, and document sharing, participants were able to get a taste for the possibilities. The addition of a microphone and a relatively inexpensive camera left many wondering why we put up with expensive long distance phone bills.

The afternoon sessions were devoted to an introduction to FrontPage 2000 and the possibilities for online quizzing and surveying. Also included was a quick introduction to the ease of using Excel in the collection and analysis of data from other sources.

Friday morning began with a discussion of the needs assessment survey that will be mailed and administered to five key people on all 35 campuses. Following this brief meeting was an introduction to the new and improved features of Microsoft PowerPoint. The presenter began with the creation of a PowerPoint lecture and proceeded to demonstrate how to either broadcast it live over the web, or post it, complete with streaming audio and slide timing, onto the web for viewing online. Further, he demonstrated the ease of incorporating Excel spreadsheets or tables into a PowerPoint presentation.

An overview of Office 2000 as well as an introduction to the many new features of Word 2000 followed the lunch break. New formatting options, more extensive drop down menus and HTML options have made Word much more than a word-processing program.

The Foundation for California Community Colleges currently has an agreement that allows faculty and staff of California Community Colleges to purchase Office 2000, FrontPage 2000 and Windows 98 for a fraction of the retail prices. For more information on this offer, see www.foundationccc.org.

The Conference ended with an introduction to the functionality of Microsoft Outlook and Microsoft Ex-

change. These products incorporate asynchronous discussion, shared work folders, as well as a calendar feature and organizational options. While the use of Exchange requires the proper server, the introduction was quite informative.

While everyone attending this conference came with a very different list of skills and knowledge, all left with some new knowledge and many new resources. Another conference is scheduled to be held in November, and will continue the communication among the contact staff as well as provide further instruction in educational and technological developments and functionality.

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## pook

## TECHNOLOGY WILL HELP COMMUNITY COLLEGES MEET NEEDS

A new book entitled "Taking a Big Picture Look @ Technology, Learning & the Community College," explores what steps community colleges need to take to prepare students for working in the high-tech market-place. The book, written by 15 authors and co-edited by Mark D. Milton and Cindy L. Miles, will be published in December or January by the League for Innovation in the Community College.

The authors say community colleges need to create a student-centered educational environment that makes every effort to expose students to the latest in relevant technology. Some schools are doing this already by offering distance-learning programs and establishing sophisticated Web sites that allow students to register and pay for classes and generally avoid academic bureaucracies. Also, college presidents are hiring younger, more technology-savvy professors to replace retiring faculty.

The League for Innovation surveyed 523 college presidents and CEOs while preparing the book.

**Chronicle of Higher Education Online 10/25/99** 

#### **Distance Ed Security**

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exams to be password protected, to have a different test form every time a different student logs in, and to give immediate feedback to the student about the scores (and answers). Further, Web-based testing software allows the instructor to receive the exam immediately. This type of Web-based testing reduces the need for transporting exams from one location to another, thus increasing security and ensuring greater likelihood that the student will get the exam when needed.

## Some High-Tech ID Methods for Future Use

For instances when high levels of identity security are required and there are no human proctors, DCCCD is considering a number of options,

such as retinal scans; ear shape; facial identification through thermographs; voice, palm, or fingerprints; hand geometry; and ongoing handwriting analysis throughout the exam.

#### **Conclusion**

There are a variety of ways to address the need for identity security in the context of meaningful assessment of learning. The responses that an institution chooses will depend upon a number of factors, including the resources available to the institution and the learners, the design of the learning processes, the types of assessment appropriate for measuring achievement of the learning objectives, and the number and location of students to be served. While e-com-

merce and high-tech trading are also bringing about the means for high-tech security, the cost to the student and the college may not be warranted in many cases. For the majority of institutions, other, less expensive or lower-tech methods, such as some of those described above, may be as appropriate. For funding costly, high-tech solutions, institutions may need to work together in consortia or in large districts.

For more information, visit the DCCCD Web site at www.dcccd.edu

This article originally appeared in the Spring/Summer issue of AGENDA, the PBS Adult Learning Magazine, and is reprinted with permission. www.pbs.org/adultlearning/als/agenda

TIPS Arms

Tuthology in Education

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