FISCAL YEAR 2004-2005
TELECOMMUNICATIONS AND TECHNOLOGY INFRASTRUCTURE PROGRAM (TTIP) GUIDELINES
TECHNOLOGY, RESEARCH AND INFORMATION SYSTEMS DIVISION (TRIS)

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TELECOMMUNICATIONS & TECHNOLOGY UNIT

The mission of the Telecommunications & Technology Unit is to provide quality leadership by defining systemwide telecommunication policy and standards to the Colleges and by supporting their delivery of data, satellite, video, and voice communications.

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CALIFORNIA COMMUNITY COLLEGES
GUIDELINES FOR 2004-2005 STATE FUNDED
Telecommunication & Technology Infrastructure Program

I. The 2004-2005 State Budget Act contains $23,397,000 million for expenditure on the Telecommunications and Technology Infrastructure Program (TTIP). The Budget Act provides that $12,500,000 shall be allocated to colleges for the following purposes:

1. maintenance of communication lines, software and other costs associated with connecting to California Research and Education Network (CalREN) in partnership with CSU, UC, K-12 and several private universities.
2. video conference connectivity, transport, maintenance, and training;
3. local planning and development for improving library technology including library automation, connections to college local area networks and connections to external databases;
4. digital satellite systems

And these optional (TCO) Areas:

5. the development, expansion, and maintenance of local area networks both within and between buildings;
6. development, expansion, and maintenance of districtwide wide area networks for interconnecting multiple campuses and off-campus centers within a district;
7. Implementation of local technology applications that are intended to improve student learning and other services.

II. ACCOUNTABILITY

State funds allocated pursuant to Item 6870-001-0001, Provision 16, Chapter 208 of the 2004-05 Budget Act shall be accounted for in the General Fund, Part B-Restricted. This revenue shall be expended only for those items defined herein. The revenue shall be recorded as State Revenue, Categorical Apportionment (Controlling Account 8620, subordinate classification: Other Categorical Apportionment). The expenditure of this money shall be recorded in accordance with the California Community College’s Budget and Accounting Manual.

Any balance in the accounts as of June 30, 2004 shall be carried over to the next fiscal year and continued as restricted for the designated purposes.

III. AUDIT

District expenditures of the funds shall be reviewed as part of the contracted audit (ECS 84040).

IV. REPORTING REQUIREMENTS

Expenditure Plan Reporting

Districts are to report on the actual funds expended in relationship to the Expenditure Plan adopted by the district. Any balance in the accounts as of June 30, 2004, shall be carried over to the next fiscal year and continued as restricted for the designated purposes. The report is due by September 30, 2005.
Section A - Standards and Guidelines for Video Conferencing

Overview: Video conferencing is one of four basic requirements for the TTIP. Its focus is to facilitate real-time interactions for participants in instruction and administrative staff meetings within a single college or district and/or between colleges in the CCC System. Video conferencing allows two-way video and two-way audio between point to point and multiple sites. This technology allows the participants to meet without traveling and therefore, reduces travel cost and improves the productivity of employees by not losing time to travel. The use of video conferencing in the classroom offers the best comparison to the traditional classroom between remote sites. Colleges can bring together students from different locations and conduct classes that otherwise might not be available.

Background: With colleges going to DS-3 data connectivity to CalREN network, video conferencing switched to a Video over Internet Protocol (VOIP) H.323 over the network. Since the original TTIP video equipment, PictureTel Venue 2000, Model 50 could not be converted to H.323, it was necessary for colleges to replace these units with H.323 compatible video conferencing equipment to work over the data network. Mini-grants were distributed in 2002-03 for the upgrade to the new standard. In the case of newly funded sites, the video standard is H.323.

In recognition of the need to deliver video services over IP, the California Community Colleges and the other CENIC members have worked together to form a joint steering committee to address the issues of implementing Video over IP on the CalREN network. Membership of the steering committee is being drawn from the California State University, California Community Colleges, the University of California, CENIC, and the K-12 community.

For additional information on the conversion to IP, see http://www.cenic.org/services/cve/

1. Standards: H.323 Component Standard
   All H.323 terminals must support these features:
   - H.245, a complex standard for negotiating channel usage and capabilities
   - Q.931, a standard for call signaling and setup
   - Registration/Admission/Status (RAS), a protocol for communicating with gatekeepers
   - RTP/RTCP support, for sequencing audio and video packets.

   H.323 terminals may optionally support these features:
   - Video codecs
   - T.120 data conferencing protocols
   - MCU capabilities
   - Gateways

2. Room Requirements:
   IP Based CODEC
   Cat 5 or better wiring specification
   Switched Ethernet
   Technical support for troubleshooting problems
   LAN/WAN support to the local Gatekeeper/Border Router

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Section B - Standards and Guidelines for Library Automation and Electronic Resources

Background: The access and use of information resources is a critical aspect of student learning and success and instructional improvement. The primary focus of the library and learning resources technology and electronic resources initiatives is to provide faculty and students access to the resources in the CCC system’s libraries and learning resources programs. The first phase initiative was a three year program designed to establish library automation capability at all CCC libraries. Upon completion, students, faculty, and administrators should be able to search any CCC or CSU library.

The library automation and electronic resource initiative was a required area within TTIP. The initiative was based on the principles that emphasize standard library automation and compliance with Z.39.50. The rationale was and is to allow for the creation of a statewide "system" that maximizes shared resources and increases student and faculty access to instructional collections and services. It addresses standards and guidelines associated with library automation, digitizing catalogs for on-line uses, and electronic resources.

The plan to implement Library Automation in every CCC college was distributed over a three year period. The colleges were required to convert at least 75% of their catalog records to the US MARC format and to acquire a FAX machine for the library. In years two and three, colleges were to acquire and install a library automation system consistent with the established system wide standards and develop a Library Technology Plan.

Status: Funding is provided for on-going electronic library and learning resources. A total of $4 million is provided and divided equally among all colleges.

Standards:

- **US MARC** is the foundation format for library automation and electronic resources. It is the universal format for the conversion of library collections into a machine readable format.

- **Library Automation System**: The library automation system is to adhere to the Z.39.50 ANSI protocol. The initial modules to be acquired and/or upgraded are:
  - Cataloging,
  - Electronic Public Catalog (OPAC), and
  - Circulation.

When a college has met the two required standards for libraries and provided for a minimum of $36, 697 for on-going electronic library and learning resources, the telecommunications funds can be spent in any of the TCO categories of the TTIP. Colleges may elect to retain these funds within the library area and expend funds in any one of eleven library areas as follows:

1. Enabling technologies for disability access.
2. Electronic Resources & Databases
3. Internet Connectivity & Access
   Every library should have a degree of Internet connectivity and access which should include:
   - Web Access to staff and public users,
   - E-Mail access from outside users to the library, and
   - Telnet access to the on-line catalog.
4. Library Teaching Lab
5. Library WEB Server
6. Multi-media Workstations/Collections
7. Electronic Reserves Software
8. Instructional Development Workstations/Peripherals
9. CD-ROM Networks
10. Service Maintenance Contracts on above Technologies
11. Library Technical Support Staff
Section C - Standards and Guidelines for Satellite Digital Downlinks

Overview: Satellite downlink capability was one of the minimum requirements for inter-college connectivity specified in the telecommunications infrastructure. The satellite network was one of four intra-state activities connecting the CCC system in the TTIP.

The CCC Satellite Network (CCCSAT) enables colleges and districts to distribute and receive instructional classes and programs, administrative data, and faculty and staff development activities. The network provides a vehicle for colleges to deliver content across the state, nation, and globe. Through the CalREN, any college will be able to deliver a video signal to the CCCSAT digital uplink facility and to a satellite. Programming will focus on a variety of academic, student services, and administrative needs.

Background: In early fall 2003, the CCCSAT Grant was re-awarded, through a competitive process, to Palomar College. Palomar College issued an RFP to select a common vendor to take advantage of cooperative purchase and therefore, leverage the system’s dollars due to its size.

The standard downlink equipment is:
- 1.8 meter antenna with non-penetrating roof mount – 1/8” rubber mat
- LNB
- Digicipher II Receiver
- Installation Kit
- Initial Site Survey
- Non-penetrating roof/ground mount installation
- Inspection and Certification of all installations
- 9 X 5 on-site maintenance per calendar year

Reference: California Community Colleges Satellite Network (CCCSAT)
URL: www.cccsat.org
SECTION D: Total Cost of Ownership (TCO) Guidelines and Categories (carry-over only)

Overview: When educational institutions acquire computer hardware/software, they do so often without factoring in the costs to support the equipment and infrastructure. As a result, there is often a lack of support to maintain, repair, improve performance of the equipment, as well as a lack of staff for training faculty, staff, and students. This creates delays and inefficient use. The TCO funding concept assumes a relationship between computer hardware/software and support. It is a method of determining the full cost associated with owning and using computers in an educational environment.

Background: Since 1987, GartnerGroup has counseled enterprises to consider all costs associated with computing when making management decisions about desktop and LAN acquisitions, upgrades, support and administration. During this time, GartnerGroup has created and evangelized the concept of TCO to the IT community. As enterprises have begun to address the significant and rising costs devoted to their IT infrastructure, the message has gained wide acceptance among IT users. As technology suppliers seek ways of differentiating themselves meaningfully, they too have turned to the TCO model as a means of underscoring their value to the customer.

Used as a management tool as part of an enterprise's annual planning process, the TCO model can become part of a continuous process of measurement, simulation and improvement. Because budget decisions are ultimately based on a set of strategic IT goals, most enterprises must be able to determine various levels of TCO based on the decision being made. By using the TCO model, enterprises can:

- Translate IT cost, staff, budget and other metric information into a TCO "chart of accounts" for each organization.
- Compare the enterprise's actual TCO to typical TCO-based external comparative data. The typical TCO reflects the enterprise's unique business type, size, worldwide location, assets, technology and complexity against other enterprises doing similar levels of work.
- Audit the results to highlight strengths and weaknesses in the enterprise's actual TCO.
- Create a proposed environment or target TCO based on improvements to assets and changes to technology and complexity, and compare the target TCO with the actual TCO.

The breakdown of direct and indirect costs used in the GartnerGroup TCO Model include:

- Direct (i.e., budgeted) costs - measure the direct expenditures on IT by an organization (e.g., capital, labor and fees);
- Hardware and software - the capital expenditures and lease fees for servers, client computers (e.g., desktops and mobile computers), peripherals and network components;
- Management - the direct network, system and storage-management labor staffing, activity hours and activity costs, maintenance contracts and professional services or outsourcing fees;
- Support - the help-desk labor hours and costs, help-desk performance metrics, training labor and fees, procurement, travel, support contracts and overhead labor;
- Development - the application design, development, test and documentation labor and fee expenditures including new application development, customization and maintenance;
- Communications fees - the inter-computer communication expenses for lease lines, server access remote access and allocated WAN expenses;
- Indirect (i.e., unbudgeted) costs - measure the capital and management efficiency of IT in delivering expected services to end users;
- End-user IS - the cost of end users supporting themselves (and each other) instead of relying on formal IS support channels (i.e., peer and self support), end-user formal training, casual learning (i.e., non-formal training), self-development/scripting of applications and local file maintenance;
- Downtime - the lost productivity due to planned (i.e., scheduled) and unplanned network, system and application unavailability, measured in terms of lost wages (i.e., lost time).

The GartnerGroup research shows that the initial cost of hardware and software represents only 30 percent of the Total Cost of Ownership (TCO). GartnerGroup and the Telecommunications and Technology Advisory Committee (TTAC) worked at length to determine the TCO model appropriate for the Community College environment.

The cost estimate for the technology using the Total Cost of Ownership model for the Community College is $3,506 per PC. Therefore, a TCO computer is one that is funded at a level of support that corresponds to the 19 elements of the TCO model. The TCO model is designed and constructed to be reviewed and analyzed on a continual basis reflecting the ongoing changes and costs as they relate to equipment, software, training, and support personnel. The TTAC will review the model annually to determine adjustments to it as appropriate. The next tables describe the categories that funds can be spent in if minimum standards are met.
Total Cost of Ownership Model
TCO Computer Categories

<table>
<thead>
<tr>
<th>Direct Costs of Hardware/Software</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub Category</strong></td>
</tr>
<tr>
<td>PC hardware and Operating systems cost</td>
</tr>
<tr>
<td>Assistive technology hardware and software (10% of PCs)</td>
</tr>
<tr>
<td>O/S and Office Software Licenses</td>
</tr>
<tr>
<td>Peripherals</td>
</tr>
<tr>
<td>Network Operating System Hardware</td>
</tr>
<tr>
<td>NOS Licenses</td>
</tr>
<tr>
<td>Switches, hubs and bridges (Hardware and Software)</td>
</tr>
<tr>
<td>Wiring</td>
</tr>
<tr>
<td>NSM Hardware and Software</td>
</tr>
<tr>
<td>Servers (HDW and SFTW) for web services</td>
</tr>
<tr>
<td><strong>Sub-Total Cost</strong></td>
</tr>
</tbody>
</table>

*Note: Chart does not include printers for assistive technology. The printers are estimated at $4000 per printer. One printer per each lab that provided assistive technology would be necessary.*

<table>
<thead>
<tr>
<th>Direct Costs of Training</th>
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<tbody>
<tr>
<td><strong>Sub Category</strong></td>
</tr>
<tr>
<td>Training</td>
</tr>
<tr>
<td>Technical staff training</td>
</tr>
<tr>
<td><strong>Sub-Total Cost</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct Costs of Systems Management</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub Category</strong></td>
<td></td>
</tr>
<tr>
<td>Network and Systems Admin. (Novel, etc. include wiring staff)</td>
<td>1 staff / 300 PCs;</td>
</tr>
<tr>
<td>Technical Management</td>
<td>1 / 500 PCs</td>
</tr>
<tr>
<td>Web Administration</td>
<td>1 staff per 12,000 FTES;</td>
</tr>
<tr>
<td>Administrative Systems Support (web, user dev. applications)</td>
<td>1 @ $85K + 25% = $106,250</td>
</tr>
<tr>
<td><strong>Sub-Total Cost</strong></td>
<td></td>
</tr>
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<table>
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<tr>
<th>Direct Cost of Support</th>
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8
<table>
<thead>
<tr>
<th>Sub Category</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 Support</td>
<td>1 staff / 150 PCs</td>
</tr>
<tr>
<td>Sub-Total Cost</td>
<td></td>
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</tbody>
</table>

**Direct Cost of Development Support**

<table>
<thead>
<tr>
<th>Sub Category</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Development</td>
<td>2 staff / 12,000 FTES</td>
</tr>
<tr>
<td>Sub-Total Cost</td>
<td></td>
</tr>
</tbody>
</table>

**Direct Cost of Communications Support**

<table>
<thead>
<tr>
<th>Sub Category</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>$24,000/yr : 1-6000 FTES</td>
</tr>
<tr>
<td></td>
<td>$48,000/yr : 6,000-12,000 FTES</td>
</tr>
<tr>
<td></td>
<td>$72,000/yr : 12,000-18,000 FTES</td>
</tr>
<tr>
<td></td>
<td>$96,000/yr : 18,000+ FTES</td>
</tr>
</tbody>
</table>
Appendix E - Standards and Guidelines for Technology Human Resources Fund (Carry-over funds only)

Overview:
In 1997-98, $4 million was allocated for the purposes of faculty and staff training in technology. Standards and guidelines were established and districts were required to develop expenditure plans for this funding. Funds were distributed on a formula basis that took into account the number of faculty and staff. The formula also established a minimum level of funding for college sites to protect small colleges. In 1998-99, the fund was increased to $6 million and to $8 million in 2000-01 and 2001-02 respectively. In 2002-03, funding for the Technology Training category was cut. Given that funds may be carried over into future fiscal years.

The TTIP funds were also used to develop training packages, workshops, and on-line resource collections specifically designed to meet the needs of California Community College (CCC). One such project is the @ONE online network (http://one.cvc.edu); a technology training network and resource that provides on-line exchanges, training packages, workshops, and other services. Colleges and districts may find it useful to continue to use the following resources for training and learning purposes, California Virtual Campus (CVC) Statewide Professional Development Center http://pdc.cvc.edu/

I. Goals and Objectives for Technology Training
These goals and objectives should be consistent with the provisions and guidelines of the 2003-2004 Telecommunications and Technology Infrastructure Program (TTIP) as explained below. They should be justified in relationship to (a) need and/or (b) existing college plans, where appropriate.

II. Technology Human Resources Training Funds Guidelines
In defining the scope of need and setting priorities for the expenditure of the TTIP Human Resources Fund, all planning, implementation, evaluation and reporting should explicitly recognize that the use of any technology is for the purposes of:

a) improving the quality of the total student experience;
b) increasing the effectiveness of instruction;
c) broadcasting the access to instruction for those only or better able to gain access to courses, or to particular content, via the use of such technology;
d) reducing the costs or increasing the efficiency of college services while holding quality constant or improving upon it.

III. Allocations by Authorized Use Areas
The following are the authorized categories and areas descriptions for the Human Resources Technology Training Funds. This information is used by the Chancellor’s Office in planning, advocacy, and reporting needs associated with faculty and staff development. Districts have the flexibility to use carry-over funds in any of the four categories.

1. Technology Training Infrastructure
   A) Planning & Coordination
      1. Developing TTIP/Human Resource Expenditure Plans, conducting needs studies, coordinating technology training planning with staff development and other college-wide planning processes.
      2. Researching and evaluating training materials, presenters, services, sites and sources.
      3. Planning, implementing, tracking, evaluating and reporting on the other
      4. nine authorized categories and areas.
   B) Faculty/Staff Development Center and Other Forms of Technical Support.
Establishment or expansion of the hours or services of a "teaching and learning center or centers", i.e., one or more sites on campus that contain (a) demonstration workstations with computers equipped to support a range of educational uses of technology; (b) information on teaching and learning, upon training opportunities, and educational technology; and (c) space for training and discussions related to the educational uses of technology and the improvement of teaching and other educational services. Provision of technical support including coaching, assisting, and supporting the development and implementation of new modes of instructional and service delivery. Such assistance may be provided by technical staff and/or by unclassified (including students), classified or certified staff to fulfill the need specified by the college (see also #8, below for the need for and limitations upon this provision).

C) Purchase of Self-Paced Training Tools and Services (including tutorials, CD’s, Web-based Training, Videos and materials and services that provide self-paced training).


Released time and other expenses associated with a college or district developing their own training tools and materials for the use of their trainers or for self-paced training.

Colleges are encouraged to use these funds to develop and share tools (i.e., common templates, boiler plates, libraries, reusable learning objects, etc.) that lessen or preclude the need for specialized technical training among most practitioners.

At the same time in promoting the use of such tools, colleges are encouraged to invest heavily in promoting their most effective use, by incorporating in the design of these tools on-line reminders, guides or “ wizards” that incorporate reminders, and/or are based upon sound pedagogical counseling and learning principles and practices.

2. Preparing for Technology Adoption

A) Introduction to Educational Uses of Technology

Attendance at conferences, development of Flex activities, and other activities designed to raise consciousness across a college of the potential use of technology and any plans a college may have to start using new forms of technology, and so forth.

B) Institutional Redesign

Research, training or consultation for the redesign of positions, academic structures, settings, processes, and policies to permit wider use of educational technology, alone,

or in combination with alternative and traditional pedagogues, and including training or coaching in the management of change and continuous improvement related to the effective use of educational technology.

C) Accessibility Design Training

In order to better respond to the Office of Civil Rights on the California Community College response in its efforts related to accessibility, this area has been broken out to track the systems work towards achieving the goals establish with OCR and the Chancellor’s Office Legal Office.

In conducting training and development resources, including practice and demonstrations, colleges should assure that the following standards are considered:

1) The requirements of universal design, i.e. standards that assure full access to Web sites by those with special hearing or vision needs. http://www.w3c.org/WAI
2) The High Tech Training Center at De Anza College is also a valuable resource for this area http://www.hctct.net/publications/guidelines/distance.ed/disted.htm
3) Appendix F and G also contain useful information and references.

3. Direct Training

D) Using Educational Technology
Areas may include, but are not limited to: basic understanding of technology and telecommunications, presentation software and devices, management of e-mail and on-line discussion groups, real-time teaching at a distance, the use of Web-based research and communication tools, use of graphic, video-graphic, and virtual reality tools for creating learning objects, on-line registration and counseling tools, electronic transcripts, electronic cataloguing and library services and so forth.

To achieve full proficiency in the design of interactive, multi-media, and distance-based delivery, alone or in combination with other alternative modes of instruction (i.e., collaborative learning, learning communities and so forth) training in the theory of learning systems, learning styles, cognition, multiculturalism, and assessment, and in the design of learning systems and curricula, may be paid for with these funds and is encouraged. The @ONE Project offers training packages that address some of these areas.

In conducting training and development resources colleges should assure that the following standards are considered:

1) The requirements of universal design, i.e., standards that assure full access to Web sites by those with special hearing or vision needs. http://www.w3c.org/WAI

(NOTE: ‘Learning objects’ refers to courses, coursework, outlines of records, text files, simulations, multi-media and power-point lectures, assignments, exercises, assessment protocols or items, video-clips, audio-clips, photographs, graphics, and so forth. Whenever they are made available electronically for the purpose of education.

Labeling such objects using IMS standards allows educational users to readily find the objects that they need and to share, exchange, offer at cost or sell such objects, across different publishers, platforms and institutions, while protecting the integrity of original authorship.

IMS standards apply also to database structures and records related to student services, learning resources, and administrative functions and assure similar interoperability across different platforms and institutions.)

E) Training of Technical Support

Training for technical support skills, such as skills needed in the planning, purchase, configuration and installation, operation, maintenance and repair of educational equipment, software, data transfer, and communication systems, including e-mail, web-servers, multi-media and telecommunications development and the technical aspects of distance-delivery.

F) Training of Trainers

Who are or will be employed by the college at least in part to provide training to other employees of the college related to technology and its educational uses, i.e., to provide the awareness and training listed under items #5, #7 and #8.

4. Practice and Demonstrations

G) Development of Pilot and Model Applications Following Training

Includes coached practice in the development and use of media-based presentations, lessons, models, discussion group protocols, information retrieval processes, data-bases for student advisement transcripts, counseling at a distance, and other student services or administrative processes. Practice of new skills by developing new tools or materials, or reworking roles, are eligible activities, if the resulting materials or procedures are further used for the training of others.

Colleges are particularly encouraged to plan for and fund out of TTIP dollars “Learning Teams”. Such teams can and should include faculty from different disciplines, learning resources professionals, counseling and other student services faculty, as well as staff qualified in instructional design and
various media and technical skills and appropriate administrators or their representatives. Such teams should be used to develop new courses or redesign existing courses, to create learning objects, to train other teams and to cooperate with similar teams from other colleges and segments.
Section F: Distance Education: Access Guidelines for Students with Disabilities

URL: http://www.htetu.net/publications/guidelines/distance_ed/disted.htm

Legal Requirements

Both state and federal law require community colleges to operate all programs and activities in a manner which is accessible to students with disabilities. Accordingly, as the system develops its capacity for creation of technology based instructional resources and the delivery of distance learning; it must proceed with the needs of all students in mind, including the unique needs of students with disabilities.

At the federal level, requirements for access for persons with disabilities were first imposed on recipients of federal funding by Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794) and its accompanying regulations set forth at 34 C.F.R. 104. Similar requirements were later imposed on all public entities, regardless of whether or not they receive federal funding, by the Americans with Disabilities Act (42 U.S.C. Sec. 12100 et seq) and the regulations implementing Title II of the ADA which appear at 28 C.F.R. 35.

In particular, the Section 504 regulations and the regulations implementing Title II of the ADA contain nearly identical provisions stating that recipients of federal funds and public entities in providing any aid, benefit or service, may not afford a qualified individual with a disability an opportunity to participate that is not as effective as that provided to others. (See 34 C.F.R. 104.4 (b)(1) (iii) and 28 C.F.R. 35.130(b) (1) (iii)). Title II recognizes the special importance of communication, which includes access to information, in its implementing regulation at 28 C.F.R. 35.160 (a). The regulation requires that a public entity, such as a community college, take appropriate steps to ensure that communications with persons with disabilities are as effective as communications with others.

The United States Department of Education, Office for Civil Rights (OCR) is responsible for ensuring that all educational institutions comply with the requirements of all federal civil rights laws, including Section 504 and Title II of the ADA. As a result, the opinions of OCR are generally accorded considerable weight by the courts in interpreting the requirements of these laws. OCR has had occasion to issue several opinions applying the requirements of the Section 504 and ADA regulations to situations involving access to distance education and/or computer-based instruction.

In responding to a complaint by a student with a disability alleging that a university had not provided access to the Internet, OCR noted that:

[T]he issue is not whether the student with the disability is merely provided access, but the issue is rather the extent to which the communication is actually as effective as that provided to others. Title II [of the Americans with Disabilities Act of 1990] also strongly affirms the important role that computer technology is expected to play as an auxiliary aid by which communication is made effective for persons with disabilities.

(OCR Docket No. 09-95-2206, January 25, 1996)

Adding additional clarity to the meaning of "effective communication," OCR has held that the three basic components of effective communication are: "timeliness of delivery, accuracy of the translation, and provision in a manner and medium appropriate to the significance of the message and the abilities of the individual with the disability."

(OCR Docket No. 09-97-2145, January 9, 1998)
OCR also points out that the courts have held that a public entity violates its obligations under the ADA when it only responds on an ad-hoc basis to individual requests for accommodation. There is an affirmative duty to develop a comprehensive policy in advance of any request for auxiliary aids or services.

Finally, in considering the magnitude and responsibility of this task, OCR states:

[The magnitude of the task public entities now face in developing systems for becoming accessible to individuals with disabilities, especially with respect to making printed materials accessible to persons with visual impairments, is comparable to the task previously undertaken in developing a process by which buildings were to be brought up to specific architectural standards for access. Buildings in existence at the time the new architectural standards were promulgated are governed by "program access" standards. However, buildings erected after the enactment of the new architectural standards are strictly held to the new standards on the premise that the builder is on-notice that such standards apply. One who builds in disregard of those standards is ordinarily liable for the subsequent high cost of retrofitting.

Similarly, from the date of the enactment of Title II onwards, when making purchases and when designing its resources, a public entity is expected to take into account its legal obligation to provide communication to persons with disabilities that is "as effective as" communication provided to non-disabled persons. At a minimum, a public entity has a duty to solve barriers to information access that the public entity's purchasing choices create, particularly with regard to materials that with minimal thought and cost may be acquired in a manner facilitating provision in alternative formats. When a public institution selects software programs and/or hardware equipment that are not adaptable for access by persons with disabilities, the subsequent substantial expense of providing access is not generally regarded as an undue burden when such cost could have been significantly reduced by considering the issue of accessibility at the time of the initial selection.

(OCR Docket No. 09-97-2002, April 7, 1997)

There are also state laws and regulations which require community colleges to make their distance education offerings accessible to students with disabilities.

Government Code Section 11135 et seq. prohibits discrimination on various grounds, including mental or physical disability, by entities receiving funding from the State of California. The Board of Governors has adopted regulations at Title 5, California Code of Regulations, Section 59300 et seq. to implement these requirements with respect to funds received by community college districts from the Board of Governors or Chancellor’s Office. These regulations require community college districts and the Chancellor’s Office to investigate and attempt to resolve discrimination complaints filed by students or employees.

In addition, the Board of Governors has adopted Title 5 regulations setting forth the general requirements applicable to all independent study (Sections 55300 et seq.) and those requirements specific to distance education courses (Sections 55370 et seq.). Section 55370 expressly states that the requirements of the Americans with Disabilities Act are applicable to distance education courses.

The remainder of this document sets forth guidelines developed by the Chancellor’s Office to address specific issues community college districts will face in meeting their legal obligation to make distance education courses accessible to students with disabilities. These guidelines are not legally binding on districts, but the Chancellor’s Office will apply these guidelines in determining whether a district has met its obligations under Title 5, Section 55370 and 59300 et seq. Districts which follow these guidelines will generally be regarded as having met those obligations. Districts which do not follow these guidelines will bear the burden of demonstrating that they have achieved compliance with their legal obligation to provide access to distance education for students with disabilities by other means.
Basic Requirements for Providing Access

The following are general principles that should be followed in ensuring that distance education courses are accessible to students with disabilities. They represent the general concepts of the ADA and its regulations but do not provide a detailed legal analysis of the ADA requirements. Persons utilizing this document who are unfamiliar with the ADA may wish to consult the campus ADA Coordinator or DSP&S Coordinator for further interpretation. In the remainder of this document, specific guidelines will be provided for resolving access issues with respect to particular delivery modes commonly used in distance education.

1. One of the primary concepts of distance education is to offer students "Learning anytime, anywhere." Therefore, all distance education resources must be designed to afford students with disabilities maximum opportunity to access distance education resources "anytime, anywhere" without the need for outside assistance (i.e. sign language interpreters, aides, etc.).

2. Distance education resources must be designed to provide "built-in" accommodation where possible (i.e. closed captioning, descriptive narration) and/or interface design/content layout which is accessible to "industry standard" assistive computer technology in common use by persons with disabilities.

3. Whenever possible, information should be provided in the alternative format preferred by the student (i.e. sign language interpreter, closed captioning, descriptive narration, Braille, audio tape, large print, electronic text). When choosing between possible alternative formats or methods of delivery, consideration should be given to the fact that methods which are adequate for short, simple or less important communications may not be equally effective or appropriate for longer, more complex, or more critical material (Example: Use of a telephone relay service may be an acceptable method for a faculty member to respond to a brief question from a deaf student during his/her office hours, but probably would not be appropriate as a means of permitting that same student to participate in a class discussion in a course conducted by teleconference.) Issues concerning accommodation should be resolved through appropriate campus procedures as defined under Title 5, Section 56027.

4. Adoption of access solutions which include assigning assistants (i.e. sign language interpreters, readers) to work with an individual student to provide access to distance education resources should only be considered as a last resort when all efforts to enhance the native accessibility of the course material have failed.

5. Access to distance education courses, resources and materials include the audio, video and text components of courses or communication delivered via satellite, Instructional Television Fixed Services (ITFS), cable, compressed video, Local Area Network/Wide Area Network (LAN/WAN networks), Internet, telephone or any other form of electronic transmission. Access to resources and materials include the audio, video, multimedia and text components of Web sites, electronic chat rooms, e-mail, instructional software, CD-ROM, DVD, laser disc, video tape, audio tape, electronic text and print materials. Where access to Web sites not controlled by the college is required or realistically necessary to completion of a course, the college must take steps to ensure that such sites are accessible or provide the same material by another means that is accessible.

6. Distance education courses, resources and materials must be designed and delivered in such a way that the level of communication and course taking experience is the same for students with or without disabilities.

7. After the adoption date of these guidelines, any distance education courses, resources or materials purchased or leased from a third-party provider or created or substantially modified "in-house" must be accessible to students with disabilities unless doing so would fundamentally alter the nature of the instructional activity or result in undue financial and administrative burdens on the district.
8. Colleges are encouraged to review all existing distance education curriculum, materials and resources as quickly as possible and make necessary modifications to ensure access for students with disabilities. At a minimum, the Chancellor’s Office will expect that the curriculum for each distance education course and its associated materials and resources will be reviewed and revised as necessary when the course undergoes curriculum review pursuant to Title 5, Sections 55002 and 55378, every six years as part of the accreditation process. In the event that a student with a disability enrolls in an existing distance education course before this review is completed, the college will be responsible for acting in a timely manner to making any requested modifications to the curriculum, materials or resources used in the course, unless doing so would fundamentally alter the nature of the instructional activity or result in undue financial and administrative burdens on the district.

9. In the event that a discrimination complaint is filed alleging that a college has selected software and/or hardware that is not accessible for persons with disabilities, the Chancellor’s Office and the U.S. Department of Education, Office for Civil Rights will not generally accept a claim of undue burden based on the subsequent substantial expense of providing access, when such costs could have been significantly reduced by considering the issue of accessibility at the time of initial selection.

10. In all cases, even where the college can demonstrate that a requested accommodation would involve a fundamental alteration in the nature of the instructional activity or would impose an undue financial and administrative burden, it must nevertheless provide an alternative accommodation which is equally effective for the student if such an accommodation is available.

11. Ensuring that distance education courses, materials and resources are accessible to students with disabilities is a shared college responsibility. All college administrators, faculty and staff who are involved in the use of this instructional mode share this obligation. The Chancellor’s Office will make every effort to provide technical support and training for faculty and staff involved in the creation of accessible distance education courses, resources and materials through: campus representative(s) to the California Virtual University (CVU) Regional Distance Education Center, staff from the local Regional Distance Education Center(s), campus High Tech Center staff and High Tech Center Training Unit staff.
Section G: Section 508 of the Rehabilitation Act

In 1998 Congress amended the Rehabilitation Act (29 U.S.C. 749d) and strengthened provisions covering access to information. As amended, section 508 of the Rehabilitation Act requires access to electronic and information technology. This is not limited to assistive technologies used by people with disabilities, but rather it applies to the development, procurement, maintenance, or use of all electronic and information technologies. Section 508 requires that such technology be accessible to employees and the public to the extent it does not pose an "undue burden." The law directed the Architectural and Transportation Barriers Compliance Board ("Access Board") to develop standards that will become part of the Federal procurement regulations. The law is available at http://www.usdoj.gov/crt/508/508law.html.


The standards address software applications and operating systems (1194.21), web-based intranet and Internet information and applications (1194.22), telecommunications products (1194.23), video or multimedia products (1194.24), self contained closed products (1194.25), and desktop and portable computers (1194.26).

For additional information see the Access Board's website at http://www.access-board.gov. You may also wish to review the Distance Education Access Guidelines developed by the Chancellor’s Office of the California Community Colleges at http://www.htctu.net/publications/guidelines/distance_ed/disted.htm.

Applicability

Although section 508 is directed to the federal sector, it applies to states receiving assistance under the Assistive Technology Act of 1998 (29 U.S.C. 3002) state grant program. The U.S. Department of Education administers the Assistive Technology Act and is expected to issue clarifying guidelines in the near future. But a 1998 decision by the Office for Civil Rights of the U.S. Department of Education held that the Americans with Disabilities Act of 1990 imposed essentially the same requirements on colleges. And Section 508 may also apply to colleges due to other forms of "federal involvement." Thus the Chancellor's Office of the California Community Colleges will, for example, require compliance with section 508 as a condition of all contracts and grants, including all districts receiving funds via the Technology and Telecommunications Infrastructure Program (TTIP).
Section H: Closed Captioning of Audiovisual Materials in Video Format (Memorandum)

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August 2, 2002

To:
Chief Instructional Officers
Chief Student Services Officers
DSPS Coordinators
Librarians
High Tech Center Directors
Community College Attorneys

From: Ralph Black
General Counsel

Subject: Closed captioning of audiovisual materials in video format
Legal Opinion M 02-22

The purpose of this advisory is to answer questions which have been raised by college officials about the options available to colleges to ensure that students with disabilities are provided equal, effective and legally-required access to audiovisual materials in video format.

Background


The section 508 regulations are applicable to the states, and thus to the Chancellor’s Office and its contractors and grantees, by virtue of the Assistive Technology Act of 1998. (29 U.S.C. § 3002.) All Chancellor’s Office contracts and grants commencing after the new regulations became effective on June 21, 2001, contain a provision requiring the contractor or grantee to comply with the section 508 regulations. In addition, each district is asked to annually certify that it complies with section 508 as a condition of receiving funds under the Technology and Telecommunications Infrastructure Program (TTIP). Thus, community colleges are currently required to ensure that information technology, or services or products purchased, leased, or developed with
TTIP funds or other funds received by grant or contract from the Chancellor's Office (or any other state or federal agency), meet the section 508 standards. (Please see Chancellor's Office Legal Opinion No. M 01-17 for a full discussion of the section 508 requirements. That opinion is available in the Legal Affairs portion of the Chancellor's Office web site, on the Opinions page, at the following URL:


From 1996 to 1998 the U.S. Department of Education, Office for Civil Rights (OCR) conducted a compliance review of the California Community Colleges to assess the extent to which colleges were prepared to provide access to print and electronic information to students with disabilities. In its January 22, 1998, letter to Chancellor Nussbaum, the OCR discussed the community colleges' "legal obligation to provide communication as effective as that provided to nondisabled students..." The OCR is responsible for ensuring that all educational institutions comply with the requirements of all federal civil rights laws, including section 504 and Title II of the ADA. As a result, the opinions of OCR are generally accorded considerable weight by the courts in interpreting the requirements of these laws. The OCR has interpreted the term "communication" in this context to include the transfer of information, including (but not limited to) the verbal presentation of a lecturer, the printed text of a book, and the resources on the Internet, as well as access to information, which would include multimedia resources. The OCR has determined that, in order for a communication with a disabled student to be "as effective as" that provided to nondisabled students, three basic components must be considered: "timeliness of delivery, accuracy of the translation, and provision in a manner and medium appropriate to the significance of the message and the abilities" of the disabled student. (OCR Docket Nos. 09-95-2206 (January 25, 1996), 09-97-2002 (April 7, 1997) and 09-97-2145 (January 9, 1998)). The OCR has made it clear that providing alternate media for students with disabilities that does not provide equal access will not meet the requirements of the statutes or regulations, as "[t]he issue is not whether the student with the disability is merely provided access, but the issue is rather the extent to which the communication is actually as effective as that provided to others." (OCR Docket No. 09-95-2206, January 25, 1996)

In view of these decisions, we observed in Legal Opinion M 01-17 that OCR's interpretation of the ADA "imposes essentially the same requirements on colleges" as does section 508. We went on to explain that

"As a result, if a college does not purchase available equipment or software which provides accessibility, OCR and the Chancellor's Office will not accept an argument based on undue financial hardship if a discrimination complaint is subsequently filed. This will typically mean that the college will be found in violation of the ADA and required to replace or modify the product, often at much higher cost."

Applying these principles to the purchase or use of video materials, it is clear that the ADA and section 508 will generally require that colleges ensure that video material is captioned for students with hearing impairments.¹ In recent months, a number of questions have arisen concerning how to comply with the legal obligation to caption instructional materials within the constraints imposed by federal copyright law. Unfortunately, there are no bright-line, definitive answers to these questions, as the law in this area is complex, and requires looking at the particular facts of each situation on a case-by-case basis.

Section 121 of the U.S. Copyright Act (17 U.S.C. §§ 101, et seq.) permits an "authorized entity" (a nonprofit or governmental agency with a "primary mission to provide specialized services related to training, education or

¹ Although this advisory is focused on issues related to captioning, the same legal principles would apply to audio description of video material for use by blind or visually impaired students. Audio description involves adding a special narrative sound track in which a narrator describes visual elements of the production which would not normally be apparent to a visually impaired individual. Of course, some videos may not require audio description, either because the visual elements are not important to an understanding of the material or because they are adequately conveyed by the existing sound track. This determination will need to be made on a case-by-case basis.
adaptive reading or information access needs of blind or other persons with disabilities") to reproduce copies or "phonorecords" from original works in "specialized formats" (such as braille, audio, or digital text) that are exclusively for use by the blind or other persons with disabilities without prior authorization from the original copyright owner. Section 121 does not include all nonprofits or governmental agencies in its definition of an "authorized entity"; it only includes those with a "primary mission" of providing specialized services to the blind or disabled. Nor does section 121 include captioning in its definition of "specialized formats"; and the definition of "phonorecords" in section 101 specifically excludes "audiovisual works" such as motion pictures or video. Therefore, as the section 121 exemptions do not clearly apply to community colleges or to closed-captioning, such activities would require the permission of the copyright holder unless, in a particular case, they fit within the "fair use" provisions of the copyright law. (17 U.S.C. § 107.)

The following general guidelines are intended to provide some direction and clarity for colleges wishing to purchase new instructional videos or to caption existing libraries of educational videos. However, a college should not rely solely upon these guidelines, and should seek the advice of its local district counsel in order to obtain legal advice and analysis specific to the facts of its individual situation and circumstances, and to avoid liability for copyright infringement. The state Chancellor's Office is not responsible or legally liable for a college's implementation of unlawful procedures or failure to obtain appropriate authorization from a copyright holder prior to video captioning and/or dissemination of accessible materials.

Option 1
Purchase Audiovisual Materials Containing Captioning
Each college should have a listing of videotape material. Typically, this information is stored in a central repository, most likely in the library and learning resource center. The production date of the material is a good place to start in determining whether or not captioning is already included in the format of the media. However, in many cases, publishers and manufacturers of videotaped material most likely have various formats available for purchase at the time of the college's order. One format offered may have been closed-captioned. Depending on the need at the time of purchase, it is possible that most colleges elected not to purchase the closed-captioned version. Each college will now need to review the format of these videos and determine whether the material is accessible.

The best possible option when purchasing new instructional video or contemplating the captioning of existing video is to contact the publisher and determine whether the desired video titles are available in a closed-captioned format. Even if your college already owns the titles in question, it may be more economical to repurchase those titles in a closed-captioned format than to caption the titles in-house or contract with a third-party provider for captioning services.

Option 2
Obtain Permission to Caption Audiovisual Materials
If a closed-captioned version of the needed video is unavailable from the publisher, the next best option is to request permission from the copyright owner to caption the video. It is important that you obtain written permission to caption the video. You should not interpret a lack of response from the copyright holder as permission to caption.

Copyright is a form of protection provided to the owner of the copyright in the original work by the laws of the copyright owner's resident country and through international treaties. The copyright owner may be the author of the work or a person or entity who derives their right in the work through the author (such as a publisher). The copyright owner has the exclusive right to reproduce or permit someone else to reproduce copyrighted works. Copyrighted work categories include: pictures, graphics and sculptures; architectural works; music and lyrics; literary works; dramatic works, including accompanying music; pantomimes and choreographic works; audiovisual works (including videotapes); and sound recordings. Purchasing, owning or possessing a licensed copy of the foregoing items does not give the possessor the right to copy or modify them. Copyright permission must be obtained prior to the modification of the audiovisual work (including videotapes). An additional authorization should be obtained if the material is going to be distributed.
The copyright owner should sign a statement, agreement, authorization or other instrument drafted or at least approved by the legal counsel for the district. We recommend that the agreement should include the following components:

- The copyright owner's permission for the described item or items to be modified in a described manner (i.e. captioning);
- A statement of the purpose of the modification, such as ensuring access for individuals with disabilities within the educational institution;
- A statement of where the material will be used (on or off campus);
- A statement of the extent to which the material will be used (i.e. if it will be used for noncredit, community services courses, for example);
- Who will have access to its use (i.e. could it possibly be used in contract education by instructors who are not community college employees?);
- The number of copies authorized;
- Instructions (if applicable) on specific usage and dissemination;
- The specific dates of the term of the authorization, including the effective date and the expiration date;
- Other specific information, such as the copyright owner's name, address, telephone number, signature, and date; and
- A place for a responsible person at the district to sign off on the agreement (this will probably be requested by the copyright owner).

Once permission has been obtained, a statement informing the users that permission has been obtained from the copyright owner to modify and disseminate the material should be clearly placed on the material. If there are limitations on its use and dissemination, a statement as to these limitations should either be clearly placed on the materials, or it should be indicated from whom permission must be obtained in order to use or disseminate the materials. It is recommended that legal counsel for the district be consulted as to the appropriate language to be used in such a statement.

The Alternate Media Exchange database hosted on the HTCTU website can be used to identify colleges and third-party captioning providers that have the material in captioned format. Colleges can request the time-coded transcripts from other colleges to expedite the on-site captioning process; or colleges may purchase captioned versions from third-party captioning providers at a significantly reduced rate.

Occasionally, copyright holders who do not currently provide closed-captioned versions of their video have asked colleges to provide them with a "caption master" of the video in exchange for permission to caption. Providing the copyright holder with a caption master is an appropriate use of public funds since colleges are receiving value (permission to caption) for their dollars. However, the district should enter into a contract with the copyright holder outlining the terms of the agreement in order to have a binding legal agreement for its protection and to show that providing the "caption master" did not constitute a gift of public funds.

Option 3

Request to Borrow Captioned Audiovisual Materials Through Inter-library Loan Program or Free Loan of Captioned Material

Exchange of a captioned audiovisual work may be accomplished through an established "loan" program. Most library and learning resource centers cooperate with other public library systems, and have entered into inter-library loan program agreements. Consultation with the college librarian would be useful to identify the procedures and process already in existence on your campus.

There are two conditions that must be satisfied before using this approach:

- First, if the materials the college is seeking to borrow are accessible versions of materials that have been purchased, leased or developed since June 21, 2001, with TTIP funds or other funds received by grant or contract from the Chancellor's Office (or any other state or federal agency), borrowing an accessible version will not be sufficient for compliance with section 508 with regard to those materials. As stated above, for all materials purchased after June 21, 2001, with the aforementioned funds, the
college should have purchased an accessible version whenever available in order to comply with section 508 requirements.

- Second, with regard to older materials purchased, leased or developed prior to June 21, 2001, or materials purchased with funds not covered by section 508, this approach would be lawful, but only if a college has a mechanism in place to insure that borrowing could be accomplished reliably, in a timely manner, so that a student with a disability would have equal access to the materials (i.e. that the materials would be accessible to disabled students during the same timeframe in which they are accessible to students that are not disabled).

Check online database collections to identify captioned audiovisual material. Some resources include:

- Cabrillo College Closed Captioned Video Collection at http://libwww.cabrillo.cc.ca.us/html/about/closed-caption.html;

Option 4

*Provide an Alternate Selection of Instructional Material*

More rarely, the copyright holder may be unavailable, unknown, or unwilling to provide permission to caption. Under these circumstances, colleges may wish to select an alternate video for use by all students.

It would not normally be permissible to continue using an inaccessible video for nondisabled students and to have deaf students watch a different video which is available in captioned format. This is because, if the alternative video is truly equivalent from an educational standpoint, then it would be appropriate for use by nondisabled students and it will generally be best for all students to have the same experience so they can share and learn from each other.

The person(s) at the college responsible for making such a decision should meet with both faculty and the librarian to coordinate the selection (or substitution) of instructional (or resource) materials.

*Option 5*

*Caption Audiovisual Material Without Permission*

If all other options have been exhausted, a college may be faced with the question of whether to proceed with captioning the video without written permission from the copyright holder. In this situation, you should discuss with legal counsel for your district whether the doctrine of "fair use" might apply. The fair use provisions of the U.S. Copyright Act are contained in 17 United States Code, at section 107. Whether or not the captioning of a video is protected under the doctrine of fair use must be considered on a case-by-case basis. The courts have issued a number of complicated and often confusing decisions on how the fair use provisions apply to specific factual situations. A discussion of the fair use doctrine is beyond the scope of this advisory.

Regarding materials that are in DVD or any other digital format, it is important to note that pursuant to section 1201 of the Digital Millennium Copyright Act (17 U.S.C. § 1201), it is a criminal offense to circumvent copyright protection technology for any use, including otherwise-legal fair use. Efforts are currently being made to address this issue in federal legislation. (H.R. 2100 (Boucher) and S. 487 (Hatch).)

Litigation

Should litigation occur, a copyright owner may file suit for an injunction to prevent college staff from infringing his or her copyright. States have claimed sovereign immunity under the 11th Amendment to the United States Constitution as a defense against liability in copyright infringement cases. The 9th U.S. Circuit
Court of Appeals has held that California community colleges can also claim sovereign immunity under the 11th Amendment, although it is important to note that these were not copyright cases. (Cerrato v. San Francisco Community College District (9th Cir. 1994) 26 F.3d 968; see also Mitchell v. Los Angeles Community College District (9th Cir. 1988) 861 F.2d 198, cert. den. 490 U.S. 1081 (May 22, 1989).) Therefore, it is likely that states (and thus the California community colleges) are currently immune from liability for copyright infringement depending, of course, upon the facts of a particular case (see, for example, Genentech, Inc. v. Regents of the University of California (Fed. Cir. 1998) 143 F.3d 1446 [state waived immunity in declaratory injunction action threatening to sue Genentech for patent infringement]). It is also important to note that at the federal level, Congress is presently considering legislation that would remove the protection of 11th Amendment immunity and allow copyright owners to sue states (and thus California community colleges) for copyright infringement. (S. 2031 (Leahy), S.1611 (Leahy), and H.R. 3204 (Coble).)

Summary

Whenever possible, colleges should obtain a captioned version of the desired video from the publisher or copyright holder. If this option is not available, a college may choose to obtain written permission to caption the video from the publisher or copyright owner through a written agreement. With regard to materials purchased, leased or developed by the college before June 21, 2001, or those materials not covered by section 508, another option may be to exchange or borrow a closed-captioned audiovisual work through an established "loan" program, if exercising this option will not negatively impact access. It might also be beneficial to make an inquiry to the publisher or copyright owner concerning the availability of a transcript in e-text format, or request permission to share a locally produced transcript with other California community colleges. It is permissible to exchange a "caption master" of the desired video with the copyright owner in exchange for permission to caption, so long as a proper legal contract is executed.

We strongly encourage a college to consult with its legal counsel in making any of the foregoing decisions and drafting any of the required legal documents, and especially before commencing to caption video without the publisher or copyright holder's permission.

A good resource for basic copyright information is the U.S. Copyright Office's website, at http://lcweb.loc.gov/copyright/

Contacts
General questions regarding the laws cited above may be directed to General Counsel, Ralph Black, at (916) 445-4826 – rblack@cccco.edu
Questions regarding the role of DSPS in captioning should be directed to Peggy Tate, DSPS Specialist, at (916) 322-3234 – ptate@cccco.edu
Technical questions regarding captioning processes, equipment and services may be directed to HTCTU Director, Carl Brown, at (408) 996-4636 – cbrown@htctu.fhda.edu

RB/fr
M 02-22
Telecommunications & Technology Infrastructure Program (TTIP) History

Year One FY 1996-97:

The TTIP was initially funded through the 1996-97 Budget Act with $9.3 million in the base budget of the California Community Colleges. That BCP was based on first a two-year planning process, and accordingly based on a Strategic Telecommunications Plan developed through a U.S. Department of Commerce Telecommunications Planning Grant, which was completed in May 1996. That process recommended a two phase strategy of inter-college and intra-college development. It put into place the organizational and technical foundation that are required for a statewide network. Connections of the colleges to the newly developed "backbone" began in the last fiscal quarter of 1996-97. We connected 10 colleges per month, and it took one year to connect all 123 sites.

Year Two FY 1997-98:

The TTIP allocation for FY 1997-98 is of $18 million. This is a full cost proposal and significantly expands the human resources component by creating a faculty and staff development fund for $4 million. Year two completes the implementation of the first year goal to connect all the 123 sites including the 3 areas of: data, video, and satellite. It also initiates the implementation of the library automation objectives.

Year Three FY 1998-99:

The 1998-99 State Budget Act contains $28 million for expenditure on the TTIP. It implements the second step of the strategic plan, Intra-college connectivity. It supports a maintenance of effort for interconnectivity, completion of the library automation process, intra-campus connections and the expansion of the local infrastructure to meet the distribution needs of the campus. In addition, it make technology accessible to all faculty, students, and staff. Year three also expand the backbone to accommodate video on the 4CNet to all the California Community Colleges. The program continues to support application development and pilots, in training of faculty and staff.

The CCC and California State University (CSU) systems have continued to work together in a combined administrative team to coordinate activities that involve the development and maintenance of the new statewide network, 4CNet, and other intersegmental activities related to the program.

Statistics:

According to Chancellor's Office statistics, the California Community Colleges System is the largest system of higher education in the world. There are 1.34 million students and over 70,000 employees in the 106 California Community Colleges. This represents 10% of all college students in the nation and 27% of all community college students. The colleges offer instruction in four types of courses: credit transfer, credit, non-credit, and community/business services.
Students attending the California community colleges train for job entry, career changes, licensing, and updating skills. Over one million students annually take one or more community college vocational education classes.

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