CEDPA K-12 TECHNOLOGISTS
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DataBus

"Supporting California's Educational Technology Community"

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TechSETS: Making Progress in Support of School Technologists

Todd Finnell, Imperial County Office of Education

Working under contract with the California Department of Education, the Imperial and San Diego County Offices of Education have joined to create TechSETS, the first project of its kind to focus specifically on technical support in California schools.

TechSETS primary function is to develop resources and support for school technologists, which have been defined as individuals responsible for planning, installing and supporting technology in schools. While there have been several efforts to improve support for technology, most have focused on developing teacher skills to support classroom technology. While these efforts will continue and can assist in providing adequate technical support, TechSETS will focus its attention on the support system and the individuals charged with making it work. TechSETS is a project created *by* technical people *for* technical people. The relationship with CEDPA and its membership is one that will continue to be a high priority for the project.

The first four months of TechSETS have been spent developing the foundation on which to build. Three primary areas have been the focus of attention and include the Technical Expertise for California's Helpdesk (TECH) Program, the matrix of skills, and website planning and development.

TECH Program to share expertise

A critical component of the TechSETS project is the team of experts from across the state that has joined together to be the driving force for the majority of project activities. After a highly competitive statewide recruitment for participants, 22 individuals representing each of the 11 CTAP regions were selected. The TECH Team is a diverse group representing expertise in the broad range of technology in education issues faced by California schools. The technical caliber of the team is second-to-none, and will be put to task in the Summer TECH Training that was held in San Diego on August 2 and 3.

For two days, the team was challenged to take a comprehensive look at technical support and develop strategies and content to meet the broad range of needs in schools. The team's work will set the stage for an exciting year in the project. Each participant will select a primary area of focus for the year, in which they will spend considerable energy to collect, develop, and /or disseminate resources to help support technology in schools.

(See "TechSETS" on Page 14)

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CEDPA Information

CEDPA is an association of K-12 Technologists. Founded in 1960, the major emphasis of the association's activities are directed towards improving K-12 Technology in public education within the State of California and to prepare its membership to better meet and support the technological needs of Administrative and Instructional Programs.

CEDPA is a California non-profit corporation, as recognized by the Internal Revenue Service.

As cited in CEDPA's bylaws, the purpose of this organization shall be:

(a) To provide information to the California public educational community concerning educational information systems and technologies via dissemination at an annual conference, through quarterly periodicals and special seminars.

(b) To foster the exchange of knowledge of educational information systems and technologies concepts, systems and experiences between local education agencies and other associations both at the state and national level.

(c) To inform the association membership of important information concerning educational information systems and technologies.

(d) To provide recommendations to the State Department of Education, State Legislature, school districts, county offices of education and other public educational organizations concerning educational information systems and technologies.

(e) To develop professional standards for the educational information systems and technologies community within the State of California.

Yearly membership in CEDPA is granted to attendees of the Association's annual conference. Individuals interested in the Association's mailings may request to be added to CEDPA's mailing list by writing to the address below or filling out the interest form at CEDPA's website.

The *DataBus* is published bimonthly by the California Educational Data Processing Association and is distributed without charge to all members of the association and other selected technologists within the State of California who are interested in information systems processing and technology in K-12 education. Submissions, correspondence, and address changes should be sent to the editor at:

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Electronic editions of the *DataBus* and information about CEDPA are available from CEDPA's website at

http://www.cedpa-k12.org

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President's Column

Creating Tools For Our Membership

Warren Williams, Grossmont Union High School District

Conference planning is well under way and this year's lineup in speakers and vendors will prove to be one of the best ever. In addition, a new configuration of the Network Operations Center and the technical talks presented there should bolster the exceptional setting provided by Monterey and the Conference Center. This year will be hosted in a much larger venue, with over double the floor space and more breakout rooms. In addition, the vendors are creating opportunities to network with fellow professionals from around the State. Throw in a great golf tournament and we think the conference will be down right irresistible. But this is not the focus of this column. The Board of Directors passed a resolution this past meeting that represents a quantum leap for the organization. CEDPA will release its first RFP to establish a WEB presence that adds features for the use of our membership. This development marks a turning point for CEDPA and a maturing of the organization. In addition, the Board took procedural steps to assure the viability of the organization and to protect its assets.

CEDPA is an organization that is managed by IT professionals who have full time jobs in district or county offices. The conference and other activities are the result of regular meetings arranged by the Board and developed over a yearlong schedule. It is a great deal of work, particularly the conference, but there is also a great deal of satisfaction in providing a forum for other working professionals across the State. In addition, many Board members also serve on other statewide panels and they bring to CEDPA a wide variety of information that assists in our efforts to provide for membership needs. Because the organization has become more complex, the Board felt it necessary to reflect this complexity in operational terms.

Until now, the CEDPA Board has stretched its resources both personal and organizational to provide the conference, *DataBus* and WEB with information and experiences that assist members as they manage their organization's technical resources. I think our efforts have been commendable but the Board frequently discusses how to extend capacity, to generate more useful applications, to create a fuller experience for our membership. The Board has met this challenge with the approval of an RFP.

CEDPA will issue an RFP to secure quotes for the development of website components. This option has been discussed for a couple of years and I anticipate that the new resources that are offered will be tremendous assets to our membership. We will be posting the RFP on the CEDPA listservs and in the *DataBus* and encourage any member to pass along the RFP to qualified individuals or firms. The RFP will ask for development of the following services

1. The creation and maintenance of an online database of job descriptions with browser based retrieval and reporting.
2. Creation and maintenance of an online database of currently available bids that may be used by agencies for the procurement of goods or services. They will also serve as models for bid development.
3. Creation and maintenance of a browser-based query of a membership data for access only by the CEDPA Board for mailing and notification.
4. An online automated membership enrollment process
5. A vendor yellow pages with searchable index

Addison Ching has done an excellent job of drawing specifications for the project. These specs will be rolled into a document for publication. It is our hope to have the process complete by the conference and perhaps even a conceptual design to demonstrate. This project provides opportunities for CEDPA to extend basic services to our membership. These services are hopefully the first in a long series of future benefits of membership. I want to now use this column to create a challenge for future CEDPA presidents to add at least one major feature to the WEB presence during her or his term in office. If each one does this then the professional stature of CEDPA will be enhanced and our membership well served by the Board.

I hope the actions of the Board meet with your approval. Please don't hesitate to contact me or any other board member with recommendations or suggestions. Take care.

Spotlight on Technology: Environmental and Spatial Technology (EAST)

Joyce Hinkson, Ed.D., California Department of Education

For one week in July, I (along with lead and support facilitators from high schools in Illinois, Arkansas, California, Hawaii, and Mississippi), attended EAST professional development sessions in Little Rock, Arkansas. The 40-hours of training in preparation for the opening of EAST sites this fall included topics ranging from roles/responsibilities and the fundamentals of project management to ethical issues and working with the media. The week culminated with team presentations of implementation plans that would become the blueprint for EAST implementation in each of the school sites. The week-long facilitator session was part of the 23 days of professional development provided by EAST.

As I mentioned in a previous column, the EAST model is a dynamic, performance-based learning environment for students utilizing project-based service learning, integrated with advanced technological applications. The setting for this model is an interdisciplinary laboratory environment where the intellectual and problem-solving growth of students, rather than technology, is the focus. California became an EAST partner as a result of a multi-state consortium project. Last year, the California Department of Education awarded grants for a two-year period to ten sites across this state that included three from Northern California (Arcata, Eureka and Mendocino), three from Central California (Roosevelt, Yosemite, and Moorpark) and four from Southern California (Calipatria, San Diego, Gladstone and Sierra. These sites will install the computers, peripherals and software during the summer and open EAST classes when school begins for the fall semester.

This year, the California Department of Education will award up to 40 EAST grants for additional sites in California. The application will be mailed to all superintendents of districts with grade 9-12 schools and will be posted on the CDE web site http://www.cde.ca.gov/east by August 24, 2001. Applications are due to the CDE office on November 16, 2001. Grant awards for this round of EAST funding will be for a one-year period in the amount of up to $150,000. EAST Vision-Building and information sessions will be held in three locations around the state for those interested in applying for the grant. The first session on September 24, 2001 will be held in the Joe Rindone Center at the San Diego County Office of Education, 6401 Linda Vista Road, San Diego. The second session will be held in Sacramento in the auditorium of the State Personnel Board, 801 Capitol Mall. The third session will be in Central California at the CSU Center in Fresno; the address is 550 E. Shaw in the Madera, Tulare and Kings Rooms. All sessions are scheduled to take place from 10:00 a.m. to 2:00 p.m. with an hour break for lunch. Successful grantees will attend the EAST Partnership Conference in Little Rock, Arkansas on February 18-21, 2002, where they will see last year's winners from California's grant competition present their projects. All EAST sites will be encouraged to present at the Student Technology Showcase on Monday, March 11, 2002 at the Sacramento Convention Center http://www.cde.ca.gov/showcase.

Dr. Joyce Hinkson is an Education Programs Consultant for the California Department of Education's Educational Technology Office. She may be reached at (916) 323-2241 or by e-mail at jhinkson@cde.ca.gov.

2001 Golf Tournament Update

Terrell Tucker
Panama-Buena Vista Union School District

Applications for this year's golf tournament at the Golf Club at Quail Lodge are flowing in and 35 golfers are already registered. Microsoft has graciously offered to sponsor this event for CEDPA attendees. A great time is promised to all who play and the blind handicapping system will afford any golfer (yes, even your high-handicap Directors!) an opportunity to win.

Plan to come out and enjoy a sumptuous buffet lunch, 18 holes (or as many as daylight allows) of relaxing golf and unparalleled hospitality in the clubhouse after your round. You'll be able to make new friends, rub shoulders with "techno-peers" and vendors while soaking in the good life offered by the Carmel Valley!

A Web-based Solution for Student Data Management

Submitted by Michael Hoy, Apple Computer Inc.

The National Center for Education Statistics reports that 98 percent of all schools and 77 percent of all instructional rooms are connected to the Internet. With this rapid wiring of our nation's schools, school leaders are now finding the Internet is more than vehicle for traveling cyberspace in search of reference materials, information and lesson plans. They are finding that systems like PowerSchool can help them maximize the investment of hardware and network infrastructure while increasing communication links between administrators, teachers, parents and students.

PowerSchool from Apple is a full-featured, web-based student information system that gives school administrators a cost-effective, streamlined solution for data gathering and reporting. It also provides real-time access for parents to performance data about their children while offering teachers an online gradebook and class management tool. In effect, PowerSchool harnesses the power of the Internet to provide K-12 schools with real-time access to vital data and establish a communication link between key stakeholders who work together to enhance student performance

Because PowerSchool is a web-based system, it reduces and in most cases, eliminates redundant data entry for common tasks such as taking attendance, grade reporting and course enrollment. For example, as a teacher enters attendance records in her classroom, those records are immediately accessible to others who have their own personal, confidential username and password including the attendance secretary, the school counselor and principal as well as each student's parent. That same class attendance data, along with other updated school records, are immediately available to district personnel who may use it to evaluate trends or compile money reports.

While the use of computer-based student information systems is not a new application of technology, a system like PowerSchool that leverages the Internet to streamline data management and enhance communication is a state-of-the-art technology application that saves time and money. For the last four years, administrators throughout the country have used PowerSchool to make data-driven decisions based on real-time data. Teachers, too have benefited from its automated reporting functions, homework postings, grade reports and communication features.

Students and parents use PowerSchool to access to real-time information about every detail of their education including attendance, grades, homework assignments and even, lunch account balances. PowerSchool's built-in communication features allow parents to specify frequency of email progress reports that are automatically generated by the system. Parents can use automatic email links to send messages to their children's teachers and, by staying attentive to class progress, head off problems before the semester grade report arrives too late to take action.

Even students who might initially shy away from the information access provided by PowerSchool appreciate the information it provides. "I love this system! I don't know how I got along without it before we started using it. It lets students check and make sure that the teacher recorded their score and that it's accurate. If they don't, the student knows it while it's still fresh in both the student and teacher's memory," commented a 10th grade student from Madison, Idaho.

In the classroom, teachers use PowerSchool as an electronic gradebook. They can quickly enter grades, take attendance, post homework assignments, and streamline other administrative tasks such as printing letters, progress reports and class announcements. And for teachers who frequently grade papers at home, the web-based system is accessible anywhere they happen to be working, freeing up valuable class time to spend with students, not administrative tasks.

IT staff appreciate that PowerSchool offers an ASP (application service provider) option which greatly reduces installation and maintenance time while increasing security and stability of the district's mission-critical SIS. A software license option is available for districts wishing to host their own server and data. In this configuration, districts have reported a 91% decrease in server costs due to the ability to use PowerSchool on a centralized server and eliminate placement of multiple servers throughout the district.

PowerSchool is accessed via any standard web browser, is platform independent and fully customizable to fit individual district needs. It provides a secure solution to student data management for over 3,000 schools ranging in size from small, single-school districts to the enterprise-size districts of 400,000+ students.

To find out more about Apple's PowerSchool student information system, call 888-470-0808 or email sales@powerschool.com.

Michael Hoy is K-12 Development Executive, Southern California Education Group, Apple Computer Inc. He may be reached at (949) 361-0782 or by email at hoy@apple.com.

Keeping Up with E-rate and California Teleconnect Fund Discounts

Wayne Shimizu, California Department of Education

Protect your E-rate and California Teleconnect Fund (CTF) discounts by staying informed about changes to these telecommunications discount programs. Highlighted in this article are the Children's Internet Protection Act (CIPA), new E-rate information, CTF program changes, E-rate and CTF training, and California Department of Education (CDE) efforts.

E-rate Updates

Children's Internet Protection Act

CIPA requires schools and libraries receiving E-rate or Title III ESEA grants to filter access to the Internet, notice the public about an Internet Safety Policy (ISP), and adopt an ISP. As with any new regulations, there are questions about implementation issues. To address the need to get accurate information to the schools districts, the CDE is working with the Schools and Libraries Division (SLD), CIPA experts and the California Technology Assistance Project to develop and deliver training in the fall of 2001. Watch the Education Technology Office page of the California Department of Education Web site for details at www.cde.ca.gov/edtech.

FCC Releases Order on Year 4 Funding Priorities

On June 29th, the FCC released an order stating that the rules for allocating discounts on requests for Internal Connections will **not** be revised for Year 4 applications. Earlier in the year, the FCC proposed funding priority would be given to requests for internal connections made by schools that did not receive funding commitments for internal connections during the previous funding year. Comments from the national E-rate community persuaded the FCC not to change the funding priority rules for Year 4.

Extended deadlines for non-recurring services

The FCC extended the deadline for schools and libraries to use their discounts on Funding Year 1 non-recurring services from June 30, 1999 (the end of the funding period) to September 30, 1999. In Funding Year 1, a number of schools and libraries received late notice of funding commitment decisions, making it difficult for them to install internal connections in a timely manner. The extension recognized delays in the implementation of the schools and libraries universal service support mechanism in the first year of the program. Also, under certain conditions, the deadlines were extended to schools and libraries to use their discounts on non-recurring services to September 30 for Funding Years 2 and 3.

Certain recipients of E-rate funding have received or may receive extensions of the implementation deadline for delivery and installation of non-recurring services (that is, Funding Request that have one-time charges). The SLD Web site lists Funding Request Numbers, extension dates, and describes how to use the Extension table and the process to follow if you believe the extension deadlines are incorrect or missing.

Year 4 Funding Waves

The Schools and Libraries Division (SLD) announced that the first wave of Funding Commitment Decision Letters for Funding Year 4 (Funding Year beginning July 1, 2001) will be mailed and information will be posted on the SLD Web site on Monday, July 23, 2001. Additional Year 4 waves of Funding Commitment Letters will be issued every two weeks. For waves issued after this first wave, SLD plans to mail letters on Fridays - the next wave will be mailed on August 3. There will be sufficient funding for approved Priority 1 requests, discount requests for Telecommunications Services and Internet Access. It still remains fuzzy how and to what level Priority 2, internal connections requests, will be funded.

New Forms

According to the SLD, a revised Form 486 will be released in late July. In addition to the form's original purpose of acknowledging the start of service, the new Form 486 incorporates certifications required by CIPA. For Year 4 funding, be sure to submit the Form 486 dated July 2001.

For consortia applications, a new Form 479, Certification by Administrative Authority to Billed Entity of Compliance with the CIPA, is available on the SLD Web site in the Forms section (http://www.sl.universalservice.org/form/). Administrative Authorities who are not Billed Entities will use the Form 479 to certify CIPA compliance.

Please visit the SLD Web site "What's New" and "SLD Forms" pages at www.sl.universalservice.org/ for details on these E-rate issues.

(See "E-rate" on Page 7)

E-rate

(Continued from Page 6)

California Teleconnect Fund

The California Public Utilities Commission adopted several changes to the CTF. Changes include adding consortia as eligible CTF entities; the inclusion of the Digital California Project as an eligible CTF consortium; increasing the CTF budget for claims from $50 million to $55 million beginning in fiscal year 2002-03; approved eligible services to include higher bandwidth services, and eliminated the fund allocation provision to CTF eligible entities. If your district is not taking advantage of this CPUC telecommunications discount program, please visit the CPUC site at www.cpuc.ca.gov/static/industry/telco/consumer+information/public+programs/ctf.htm. It is an easy to get 50% off your phone bills.

California Department of Education

E-rate Training Collaborative

It is time to start thinking about E-rate funding Year 5. The CDE is collaborating with E-rate service providers and local education agency E-rate experts to design training to enable school staff that has not previously applied for E-rate to submit the basic forms for basic E-rate eligible services. School districts that have not applied for E-rate or CTF discounts should attend this "beginner E-rate training" to find out why every school district should be participating in these telecommunications discount programs and how to apply. For staff experienced with E-rate, training for "experienced E-rate staff" will include updated E-rate and CTF information including information about eligible services, new Forms 479 and 486, new visuals illustrating processing timelines, Form 500 changing service providers, CIPA, Digital California Project information, and telecommunications discount application strategies.

Help Create the New CDE Web Site

The CDE web site will be under going a major redesign in the coming months and CDE is soliciting feedback from users of the site to assist in this redesign. Please visit the CDE site and complete the CDE Web site survey. To access this survey go to www.cde.ca.gov/websitesurvey/ or visit CDE's home page at www.cde.ca.gov/ and scroll down to the "How is our site?" link under the "Contact Us" section. Please share this information with others who might be interested in providing feedback to CDE.

Wayne Shimizu is an Education Programs Consultant for the California Department of Education's Educational Technology Office.

Digital California Project Update

Edwin W. Smith, CENIC

The DCP network implementation team encountered some unexpected delays in readying the DCP backbone hub sites. These delays were primarily related to power and equipment issues at the Qwest colocation facilities. As a result, the DCP Project Management reports they will not be able to connect as many node sites as it had hoped during the months of July and August. However, construction did begin in early July on the CENIC hub site in Sacramento which is scheduled to be completed by mid-October. The engineering details for the CENIC hub site in Reno are being finalized and it is anticipated the Reno hub site will be operational by mid-November.

Reasonably reliable circuit due dates from all three circuit providers became available in early July. A reasonably reliable schedule for connecting the node sites is in the process of being developed. The two primary factors that will drive node connectivity are the readiness dates of the backbone hub sites, and completion of any required site construction and upgrade work that the individual node sites may need to complete.

To date, the San Luis Obispo and Fresno COE nodes are operational. Circuit and equipment installations have been scheduled for Santa Barbara, Orange and Riverside COE's, and for the Los Angeles USD. It is expected that up to five node sites connected to the Fresno hub will be installed during the month of August. Based on the current schedule, the majority of node sites will be connected during the months of September and October. Progress with the rollout of the DCP network can be monitored online at http://www.cenic.org/nid/Nodes.html.

Edwin W. Smith is the CENIC/DCP Project Coordinator.

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2001 CEDPA Conference
November 14-16, 2001
DoubleTree Hotel
Monterey-Fisherman's Wharf
Monterey, California

See http://www.cedpa-k12.org/2001Conference/

The 2001 Network Operations Center

Terrell Tucker
Panama-Buena Vista Union School District

Plans for the all-new revamped Network Operations Center are finally taking shape. This year's NOC will include equipment and presentations by long time CEDPA supporters as well as some newcomers. In addition to wireless connectivity, Cisco Systems will once again provide the core equipment for the NOC. Apple Corporation will continue the "iBook Loan" program with 10 iBooks available for checkout and use during the conference. Microsoft will once again provide us with temporary licensing for their products' use during the conference. Each of these vendors will also be showcasing their state-of-the-art products via technical presentations.

Other technical items of interest will be network troubleshooting by the Fluke Corporation, network management by the Dell Corporation, structured cabling systems by the Amp Corporation and network traffic/ bandwidth management by Lightspeed Systems. Other solution providers are being sought for the few remaining spots to provide conference attendees with the best possible technology venue.

This year will debut a new NOC presentation format. Concurrent sessions will take place in separate rooms to avoid noise problems of the past. An "Internet Café" theme will give you ample opportunity to browse the web and check your email on Hewlett Packard personal computers, Apple iMac workstations and Tangent thin clients.

Another first will be 24-hour access to network jacks for those of you with laptops and no propensity to sleep! Internet access and email availability should be no problem this year, regardless of your individual preferences.

Conference Exhibit Show

Oswaldo Galarza
Orange Unified School District

The CEDPA vendor show is coming on November 15, 2001. The one-day event will provide vendors and attendees with an opportunity to meet and share the latest products and trends in educational technology. With only a few booths left, vendors submitting registrations after August 8, 2001, will be placed on a waiting list. I will keep vendors informed of their status. If you are interested in signing up or if you need further information, please contact me at (714) 628-4152 or e-mail me at galarza@orangeusd.k12.ca.us. Visit CEDPA's Web site at http://www.cedpa-k12.org for more information or to download the vendor registration form.

The growing list of exhibitors include Quest, Schoollink Technologies (formerly SNAP Systems Inc.), Compaq Computer Corporation, Electronic Classroom Furniture Systems, L.C., Allied Telesyn International Corporation, NCS Pearson, Chancery Software Inc., ea consulting inc., Unisys, Scantron, Prime Services Group, VIP Tone, Inc., Schoolcity, Apple Computer Inc., Extreme Networks, ASI Corp., Action Learning Systems Inc., Marketware Technologies, Kent DataComm and Cisco Systems Inc.

Prizes at the Thursday raffle during the 41st CEDPA Conference will include an iPAQ 3150 handheld donated by Compaq. The iPAQ™ 3150 features a backlit monochrome display and is powered by the powerful Intel 206-Mhz processor. The 3150 also offers Pocket PC versions of familiar applications including Word, Excel, and Internet Explorer plus Calendar, Contacts and much more.

Registered vendors interested in donating prizes for conference attendees can contact the vendor chair.

Membership Update

Greg Lindner, Elk Grove Unified School District

We are continuing to receive membership forms almost daily. To date we have received almost 100 membership requests so we are still actively trying to get more people to send in their forms. With our distribution of the databus well over 750, we know there are more CEDPA "members" out there! Please do your best to fill out the form and fax it in this week if you have not already done so.

For those that have sent in a form, we are working on producing an actual membership card for you. We are planning to have these scannable so that at conference registration time, we can simply scan your card for quicker processing.

If you have any questions about membership, please email me at glindner@edcenter.egusd.k12.ca.us.

The Rebirth of the CSU Website

Addison Ching, California State University Office of the Chancellor

"As you log on to your computers today, I encourage you to visit www.calstate.edu, the California State University's newly redesigned website.

"For just about any kind of organization, a website has become one of the most important vehicles of communication. It is often the first point of contact for the public. To that end, we have aimed to make our website more informative and easier to navigate. We also have placed a special focus on the need to explain more about the CSU system to a larger audience. The website illustrates the depth and breadth of our programs and services, the quality of our students, faculty and staff, and the outstanding work that is being done at our 23 institutions. This site is one of the best ways for us to demonstrate to the public how the CSU is making a difference and the significant impact we have in the state."

Charles B. Reed
Chancellor, California State University

With these words, the newly-designed, standardized, and corporate-focused website of the California State University was launched. In his message to all employees of the Office of the Chancellor, headquarters for the CSU system, as well as to campus presidents and the Trustees of the California State University, Chancellor Reed described the purpose of the new website: to explain more about the CSU and to make information more readily available and easier to find by the groups that the CSU serves.

It all began several years ago, with the birth of the Internet for educational use. Departments within the CSU headquarters were encouraged to develop and publish content on the World Wide Web. Without standards or guidelines, each department developed its own content with its own presentation formats. This resulted in the creation of lots of content in a less-than-cohesive look for a corporate website.

As years passed, that content was gradually refocused and redirected to a more standardized, corporate appearance. A previous article in the *DataBus (see "Redeveloping a Website, Vol. 38, No. 5, August-September, 1998)* described the first major effort to redirect California State University's main website towards a more corporate-centric presentation and appearance.

Why Refresh?

A website should be refreshed every few years in order to remain "interesting" and focused on its target audiences. Refreshing also provides an opportunity for newer technology to be incorporated into the design and deployment of a website.

Often, however, refreshing is necessary because of a shift in organizational philosophy, to satisfy a new or revised target audience, to support a change in marketing strategy, or to better organize information on a website and make that information easier to access and use. This is especially true with corporate mergers or in cases where a corporate image or theme (such as Hewlett-Packard's new "invent" campaign) is changed.

Refreshing should not be confused with ongoing content review, where existing web page content is periodically reviewed and certified as current and appropriate for publication. Nothing is worse than to pull up a web page that contains stale content or describes an event that has already passed.

The Role of Public Affairs

The CSU website is considered to be a publication of the California State University and falls within the responsibility of the Office of Public Affairs. This office must ensure that all publications of the CSU, including its website, are appropriate, consistent, professionally presented, and meet the publication standards of the CSU.

Web content is developed by several departmental web developers and by the Chancellor's Office IT Services (CITS) web support team. All developed web content is placed on a staging web server and must be reviewed and approved before it is deployed to the live site. The Public Affairs office reviews all proposed content and approves deployment only if it meets their standards. The CITS team deploys approved content and provides the technical support for the CSU website.

The CSU is now emphasizing a standardized "CSU Look" with new colors and symbols to reflect this look. It is important (and appropriate) that CSU's website, one of CSU's most important marketing tools, be updated to reflect this look.

An educational marketing consulting firm, whose specialty was refocusing websites of multi-campus university systems, was engaged to study the CSU website

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CSU Website

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and make recommendations for its redesign. This engagement began about a year ago, with the consulting firm holding focus group meetings to gain a better understanding of the targeted audiences and their needs. The Public Affairs office and the CITS web team also provided input to the project.

A preliminary conceptual design of the new website was presented late last year and refined during the following months. A final design was agreed on in March of this year. It was the responsibility of the CITS web team to incorporate existing website content into the new design using templates and images created by the consulting company.

Larger Than A Breadbasket

The CSU website comprises about 12,000 web pages and another 10,000 supporting files—Microsoft Word, Excel, and Power Point documents, Adobe Acrobat PDF files, text files, and ZIP archive files. The 12,000 web pages were developed by many different developers including department staff and administrative personnel, consultants, and the CITS web team, all using a variety of Macintosh and PC-based web development tools including Microsoft Word, Claris Home Page, BBEdit, HTML Web Weaver, Microsoft Front Page, Adobe Page Mill, Macromedia/Allaire HomeSite, and Macromedia Dreamweaver.

Since existing web team members would continue to support the existing web site, additional staff members were hired to support the conversion project. These new web team members were experienced web developers familiar with the tools that the CITS web team would be using during the conversion.

"When Can the New Site Be Rolled Out?"

This was a difficult question to answer for the following reasons:

- Materials had not yet been received from the consulting company so the web team could not know what they had to work with;
- The web team, not being familiar with the development styles or the type of content they would have to work with, could not know how easy or difficult it would be to convert the content to the new design;
- The existing web site could not be frozen so conversion would be performed on a "moving" target; and
- The uncertainty of ADA compliance requirements. Recent Federal guidelines set standards for website accessibility for the hearing and vision impaired. While the new website should be developed to address this compliance, there were various interpretations of what compliance meant. It was also unknown if the CSU site was required to meet these standards.

By April 1, the CSU was still attempting to get materials from the consulting firm. While some templates and graphic images had been furnished, the original Photoshop design documents had not. Also, the templates furnished were "example" templates for use in the demonstration site and were not production-ready.

Recognizing that further delays could not be tolerated, the CITS web team began redeveloping the templates and graphic images and developing style sheets to address the ADA compliance issue. The team decided to use a "best-practices" approach by setting font and layout standards to support ADA compliance.

The month of April was spent on laying the foundation for the conversion: preparing templates and graphics and assembling rollout demonstrations for preview by Chancellor's Office personnel. While the preliminary groundwork was complete for the conversion project, it was still difficult to predict a launch date because it was still unknown how the existing content would integrate with the new templates.

Increasing pressure to provide a launch date resulted in the selection of July 16. The plan then was to "freeze" the existing site on June 30, and use the following two weeks to bring the converted pages current and to provide sufficient time for quality assurance and functionality testing.

While an "official" conversion start date was scheduled for May 7, conversion of existing pages actually started prior to May 1. A two-week sampling of web page conversion to the new design templates provided the missing piece of information: Conversion could be accomplished at the rate of about 100 pages per day.

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CSU Website

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Conversion Strategy

A snapshot of the existing website was taken on May 7, the official "start" date of the conversion. From that point on, each department would be asked to keep a record of that department's web page changes. This would provide a document that could be used for final quality assurance checking. The web team would also keep a change log of every page that was changed on the existing site. This change log would be used to bring that department's pages current after that department's pages had been converted.

The responsibility for completing the home page, the top-level pages, CGI scripting, and the search engine would given to the web team leader. Conversion team members would be responsible for templating existing department web content. File inventories would be taken of each department's content. A team member assigned to convert a department would be given a copy of that department's inventory to use as a completion checklist. That same team member would also be responsible at the completion of the project to bring that department's content current, using the web team change log as a reference base.

Conversion would be targeted for completion by June 30, with the following weeks dedicated to quality assurance and functionality testing. The site would go live on July 16.

A Dose of Reality

With the two new web team members converting a total of about 200 pages a day, the project would require 60 days to convert and template all pages and an additional number of days to perform quality assurance and functionality testing. Clearly, the committed July 16 launch date was in jeopardy!

A technical consulting firm was immediately engaged to provide two advanced-level web support personnel for the duration of the project. These resources were on board within a couple of days. Conversion was now up to a completion rate of 400-500 pages per day, making the launch date reachable.

Conversion progress would continue to be monitored for the rest of the month. If required, existing web team members would be added to the project on June 1 to ensure the July 16 launch date.

Some Good News Follows

The CSU sometimes employs student assistants for temporary assignments or special projects. It was discovered that a returning college graduate who worked in CITS last summer was the webmaster at his college. This person was immediately added to the conversion team. With this added resource, the conversion rate was increased to 600-700 pages per day and launching the new website on schedule was assured.

However, this is not to say that the conversion challenges weren't encountered. Since the baseline standards and procedures for conversion were constantly changing through the early phases of the project, some of the first pages to be converted had to be revisited to bring them up to current baseline standards. Conversion team members had to contend with web pages developed by different developers with varying web development expertise. Although the extent of the project was limited to templating existing content, some pages required extensive rework in order to integrate them with the template and make them function properly. Interdepartmental navigation graphics had to be replaced with new navigation bars; web page URL references all changed, resulting in many broken links that had to be repaired. Changes in department names had to be addressed since the department name made up a part of that department's URL.

The new design provided added opportunities for content entry points. Departments were asked to provide recommendations for entry points to their content and these had to be included in the top-level navigation. Departments were also asked to provide a list of commonly accessed or bookmarked documents so that referring pages could be created to direct visitors to the new content location.

Information was collected from campus websites for various information category entry points. New campus link pages were created for commonly requested information such as campus admissions, alumni, athletic programs, employment, purchasing departments, and personnel locators. A personnel locator for the Office of the Chancellor and an online personnel directory were also created for the new site.

The Home Page Dilema

The new home page design was attractive and func-

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CSU Website

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tional, using a snappy color scheme and attractive graphics. The main focus was a picture of one of the 23 campuses. Clicking on the title bar would result in the display of another campus picture. The main message was presented directly beneath the campus picture. To the left of that were major information groups; to the right were additional information groups of a more general nature. The background featured a watermark of the CSU seal.

However, the page was inefficiently designed and slow to load. Comprising over fifty graphic images (every bit of information conveyed on the home page was an image), the page required over 90 seconds to load and display using a browser connected via a 56k dialup line.

The design produced a "flyout" box that displayed additional information about a group when the mouse was moved over the group name. Since information displayed in the flyout box was presented in a tabular or indexed form, the expectation was that these flyouts were "clickable"—clicking on an information item in the flyout box would navigate to a page with additional information. Although the consultant firm was asked to make the flyouts functional, the final product did not contain functional flyouts.

Home Work

The home page is probably the most important page of the site. It must be visually appealing, it must be functional, and it must be intuitive. Above all, it must load quickly.

Before the site was launched, several issues had to be dealt with:

- The load and display time had to be reduced to around 30 seconds;
- The number of graphic images on the page had to be reduced;
- The campus picture display mechanism had to be redesigned so that preloading of all campus images wasn't required;
- The campus picture display mechanism also had to be redesigned to avoid reloading the entire page when a new campus image was requested; and
- The flyout menus had to become functional.

As launch time neared, additional items were identified:

- Add a search capability to the home page;
- Add launch points for the Chancellor and the Board of Trustees to the home page; and
- Add an employment launch point to the home page.

In order to accomplish this, the execution of the page was completely redesigned without changing the page's appearance. Many individual graphic images, including the watermark, the color bands, the bottom blue band, and the background color, were incorporated into a single background image. The main message was converted from an image to stylized text. The campus picture display was replaced with a more efficient Javascript program that didn't require preloading all campus pictures into a table. This new script also doesn't reload the entire page when a new campus image is requested.

Making the Flyouts Functional

Flyouts are a fairly recent development in website functionality. Flyouts are designed to temporarily "fly out" and overlay existing content with a display image of different content. The presentation of information within the flyout determines what kind of flyout it is. If the content is in textual form, the flyout is informational. If the flyout contains information displayed in a tabular or indexed form, the flyout is expected to be a functionally clickable menu. Dragging the mouse over and clicking on a flyout item should result in navigatation to an appropriate page with more information.

Many websites already incorporate flyout menus with different appearances and functionalities. In order to capitalize on already-developed technology, various college websites were analyzed to see if their flyout implementations could be incorporated into the new CSU website. The implementation developed by the University of Washington (UW) was ideal for the CSU site. The UW flyout script was very well documented and completely parameterized, allowing for easy customization.

While the CSU home page uses left-to-right and right-to left flyouts, the UW flyout script could only support left-to-right flyouts. Additional programming had to be completed to accomplish this. More programming was required to compensate for idiosyncracies between Microsoft IE and Netscape browsers, especially on Macintosh platforms.

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CSU Website

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The Home Stretch

Templating of the web pages was completed during the third week of June. This allowed the team to concentrate on bringing the templated pages current, perform quality assurance and functionality testing, reconcile and repair the numerous broken links, and make overall adjustments to the website "look and feel" to ensure uniformity and consistency throughout. Website "tuning" was a process that continued right up to launch time.

With most major outstanding issues resolved, the site went live on Friday, July 13 at 7 PM. Functionality testing continued throughout the weekend in preparation for Monday's "official" launch.

It's Launch Time

Employees of the CSU Office of the Chancellor were greeted Monday morning with large placards in the building lobby advertising the new website. Early that day, Chancellor Reed issued a communication to all office employees describing the purpose of the new site.

The first week of the new website's appearance brought many compliments from CSU campuses, from the CSU Trustees, and from others across the nation including the University of Texas. Also included were a few "I can't locate this anymore" messages and some recommendations. Some suggestions were implemented to further refine the website:

- A "campuses" link has been implemented with a flyout listing links to all 23 campuses;
- The Office of the Chancellor's street address is now clickable and will produce a PDF containing a map and directions to the office;
- The flyout listing the Systemwide Initiatives now lists the initiatives as clickable links;
- The Board of Trustees flyout now includes clickable links to the Trustees' meeting schedule and meeting agenda; and
- The Locate & Find flyout now features entries describing the Chancellor's Office index, Map & Directions to the Chancellor's Office, a Navigating this Site reference, a link to the site search and a link to the site map.

Looking Back

Refreshing a website is a major undertaking that requires careful planning and sufficient resources, especially when working with a website that contains many thousands of pages and support files. It is important to have the proper equipment and licensed software tools. For this project, a separate development environment had to be created to support the "new" website while the existing site continued to operate and additional software licenses had to be obtained for the consultants.

It is vital to know the capabilities of your support team and provide them with the tools they know best how to use.

Know what your outcomes will be and what will be required to get there. Develop a conceptualization of what the site will look like and how it will operate. Identify related processes and programs such as search engines, CGI scripts, database connectors, and site mapping programs that are affected by the refresh and ensure that they will be compatible with the refreshed site.

Conduct regular review meetings with the project team to discuss the plan, issues, problems, and overall project progress. Identify functionality standards (such as page centering) that must be adhered to. Most importantly, document everything each step of the way—problems encountered (whether resolved or not), broken links, and any code adjustments that were required to make the page functional.

If the site that's being refreshed is constantly changing, have a plan to ensure that updates made to the existing site are also applied to the refreshed site. For a period of time immediately preceding the new site launching, this may require dual site maintenance—making changes to both sites.

Allow for ample quality assurance testing. Even with three weeks of testing, adjustments were being made right up to the site's launch, and adjustments continued after the launch. Be aware that some of your "fine tuning" will occur *after* the site is launched, for this is when people see how their department content interacts with the site.

A project such as this requires careful planning and lots of hard work by a dedicated team of professionals, but the end result is well worth the efforts. The web team and the CSU invite you to visit our newly redesigned site at http://www.calstate.edu.

Addison Ching is Director of Information, Dissemination and Access (IDA) at the CSU Office of the Chancellor. The IDA web team is responsible for the technical support of www.calstate.edu

TechSETS

(Continued from Page 1)

The team will serve to be an important outreach component of the project. Each participant will be conducting workshops in their region to expose schools to TechSETS and train individuals in its use. Based on the model used in the TICAL Project, these regional workshops will serve an important role in the dissemination and marketing of project activities and resources. The TechSETS marketing strategy includes reaching both school technologists and administrators. Many of the issues faced when attempting to adequately support technology need strong administrative support. This becomes especially evident when sound technical solutions conflict with individual freedom or agendas. By providing consistent information and data in which to base decisions, TechSETS will strive to bridge this gap.

As you find TECH participants working out in your region, let them know your thoughts!

The TechSETS Matrix

TechSETS has been charged to develop a matrix of skills that school technologists should have in order to successfully support technology in schools. The project will then work with training providers and other vendors to map available training resources to these skills.

The approach to the matrix development is to identify the services required in a school, the tasks to be performed to support the service, the skills needed to accomplish the tasks, and the training opportunities to gain the skills.

The matrix is in draft form and will be published for public review in August and September. CEDPA members will be encouraged to review the matrix closely and provide feedback as appropriate.

TechSETS Website: Easy access to resources and information

The TechSETS website is being developed with the needs of technologists in mind. Quick and easy access to resources and information will be essential to the success of the project. The website will include areas devoted to general information, membership, training, support, and tools and other resources. While the following is an initial blueprint of the TechSETS website, the project will actively solicit input from the field to provide the most meaningful content possible.

- A general information area will provide information and links to project partners and sponsors, the Advisory Board, the TECH Program and profiles for participants, project news, events and general contact information.

- A membership area will provide access to the Profile Center where visitors can update and manage their TechSETS account. While many of the resources available at the site will be publicly accessible, the site will rely heavily on dynamic content customized to the individual member. A secure site will also be created for TECH Participants to record evaluation data and report their monthly activity.

- A training area will provide access to the matrix and training resources available to acquire technical skills. Resources such as streaming media clips and training modules will be developed which target specific skills identified in the matrix. A secure site will be created for training providers and other vendors to input information regarding their training and other resources which align with the matrix of skills.

- The support area of the website should prove to be a valuable asset for schools struggling with specific issue related to technical support. An intelligent knowledge base of technical problems and resolutions will be created. Members can search the knowledge base and post questions in a variety of categories. The project help desk staff and TECH participants will work together to respond to questions and build a comprehensive support system for school technical support staff. Members will also find case studies, white papers and other models of success to consider as they work to improve technical support in schools. As TechSETS has found while conducting regional focus meetings, many school districts in California have found ways to provide strong technical support and are doing great things with technology in learning. Schools and districts across the state can learn from these "stories of success" and best practices in technical support.

- A "best of the best" approach will be used to develop a tools and other resources area of the site. The project will research tools and resources used successfully by schools and industry and make them easily accessible. Tips, tricks and downloads will put valuable resources at the fingertips of support staff across the state.

In the end, an online resource is only as valuable as the degree to which the content and information meets the clients needs. TechSETS must meet this challenge.

Keeping grounded in school needs

Are the resources and information gathered by TechSETS relevant to California schools? Is it making a difference? If so, how? These are important questions that need to be asked often. TechSETS can only be a valuable resource if schools find value in the information, tools and resources collected by the project. Wexford, Inc., a non-profit educational agency and project external evaluator,

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Speaker Program Update

Mike Caskey
Stanislaus County Office of Education

The Speaker program is really taking shape. Naturally, the speaker program will highlight today's technology and its use in the K-12 arena with presentations from a wide variety of speakers.

For the Pre-Conference sessions, the presentations will cover IP Telephony Implementation and Web Objects. These sessions are scheduled for Tuesday afternoon (11/13) and will provide an in-depth look at these topics.

In addition to the usual set of break-out sessions, we are putting together a special strand of "hands-on" sessions for those of you that would like an opportunity to not only hear about topics such as using Microsoft Project, but to actually have the time and technology available to try them out!!. Keep your eye out for the conference announcement and check the CEDPA web site occasionally for details.

There will be six speaker sessions, two "hands-on sessions, and two NOC "tech talk" sessions going concurrently, so you will have a wide variety to choose from. The speaker sessions are tentatively organized into six "strands", including: Dollars and Sense; Wireless and Other Current Technologies; K-12 I.T. Management Issues; SETS; Implementation Experiences; and Odds 'N Ends.

Below is a partial list of topics that are currently planned for the Speaker Program. As is the case with any undertaking of this nature, you should expect a few changes as the conference approaches, but this list will at least give you a good idea of the offerings at the November conference.

- Microsoft Pricing Strategies and How They May Affect Your District
- Telecommunications Discounts E-Rate and CTF, Leveraging your Technology Dollars
- Better Webs: Faster, Safer Surfing, Smart Publishing
- Caching & Network Performance and Internet Filtering -or-Storage Solutions/NAS & SAN
- Exchange 2000 Migration
- Microsoft Pricing
- Accessing student data with PDAs

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TechSETS

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has joined to answer these questions and others to ensure the project stays grounded in school needs.

Another key element to this end involves gathering feedback and advice from the field. The advisory process for the project brings together key stakeholders and others to guide project activities and includes an advisory board, vendor focus groups, regional and small focus groups, and personal interviews.

Recognizing the value of a close working relationship between TechSETS and CEDPA, two positions on the TechSETS advisory board have been reserved for CEDPA. Seated on the board representing CEDPA and its membership are Scott Sexsmith and Oswaldo Galarza. Other key organizations represented on the advisory board include CTAP, CUE, CENIC/DCP, CDE, CCSESA, ACSA, CoSN, and WestEd. A listing of the advisory board membership is available online.

The vendor focus groups have been especially helpful and will continue to be an important partner in developing the project. Focus groups from both the vendor and technical training communities have participated in planning sessions and have made significant contributions to the project. The ability of TechSETS to channel these communities in a statewide approach has great potential.

Launch date rapidly approaching

As TechSETS prepares to launch at CEDPA in Monterey on November 14, we look forward to serving your technical needs and increasing support for technology in California schools.

TechSETS is one of four Statewide Education Technology Services funded by the California Department of Education. Combined, the SETS provide a comprehensive support system for California schools. Learn more about each project by visiting their website below.

- California Learning Resource Network (CLRN) www.clrn.org
- Technology Information Center for Administrative Leadership (TICAL) www.portical.org
- Cost-Effective Technology for Classrooms
- (C-SMART) www.c-smart.org
- Technical Support for Education Technology in Schools (TechSETS) www.techsets.org

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Todd Finnell is Director of Learning Technologies at the Imperial County Office of Education, and is under contract with the San Diego County Office of Education as TechSETS Project Manager. He welcomes your comments or suggestions and can be reached at tfinnell@techsets.org.

Speaker

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- Planning and deploying 802.11b wireless wide area networks
- A wireless Future for Education
- Bringng Technology to the Students Wirelessly
- To Outsource or not to Outsource
- Video-on-Demand
- Web Objects (Pre-Conference Session)
- Network Telephony Implementation (Pre-Conference Session)
- Project Management for IS Projects
- Versatile Video
- Results from the Spring 2001 School Technology Survey
- Tech Planning
- "From Arson to CyberCrime: Securing your School!"
- Troubleshooting a Mixed-Protocol Network
- SETS: Purchasing for schools & districts through a master contract
- SETS:Professional Development and Resources for Technical Support Staff
- SETS: Project Overview
- SETS: Administrator training
- LANDesk Deployment Update, 1 Year later
- CSIS, The Beat Goes On
- Case Study:SAP Implementation at San Bernadino City Unified School District
- Superintendents Technology Round Table
- Building the Phantom Tollbooth: Checkpoint Firewall-1/vpn-1 as an Internet Gateway
- Lan-based telephony

Be sure to mark your calenders and be ready for a great information exchange in Montetrey, November 14-16 (pre-conference November 13).

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