

Evergreen Valley College

2011

Technology Plan



Campus Technology Committee

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Forward

The Campus Technology Committee (CTC) was originally established in 1988 as the Instructional Computer Planning Committee and was expanded in 1990 to include additional technologies and renamed the Instructional Technology Committee. In 1999, as technology use expanded throughout the college, the need for a more comprehensive view of technology on campus was needed. In addition, the need for coordination with the district technology staff required the committee to adjust its charge. The Campus Technology Committee was created; its membership includes personnel from across campus: administrators, faculty from each division, and classified staff.

In addition to developing policies and procedures related to technological standards utilized for instruction, student affairs and administration needs, the CTC reviews and revises the *EVC Technology Master Plan*. This plan is utilized to inform the overall college strategic plan and is tied to the resource and budget allocation processes as required in Accreditation Standard IIC.

The CTC met twice a month from October 2009 through May 2010 to begin its work on the new technology plan. The previous *EVC Technology Master Plan 2004-2007: "Supporting Learning with Technology"* was reviewed in addition to the *District-Wide Information Systems 2005-08 Strategic Technology Plan* and the Campus Technology Support Services (CTSS) *Five Year Technology Plan*. These plans included guidelines and accomplishments for technological upgrades as well as articulated goals through the end of 2012. The plans were reviewed to see where the college stands in relation to its previous goals.

A draft of the Evergreen Valley College Technology Plan written by the CTC was in the revision process in spring 2010; however, the college decided to wait to finalize the document, as the *Educational and Facilities Master Plan* was underway. With the completion of the *EVC Educational and Facilities Master Plan* in 2010-2011, the CTC reviewed the report recommendations focusing on technological aspects. In addition, the college completed its strategic planning process during a Professional Development Day on April 8, 2011, at a college-wide strategic planning session. This resulted in the creation of new institutional goals, or CTAs, in alignment with the current strategic initiatives and mission statement. The new CTAs along with the Achieving the Dream Student Success Initiatives, Educational and Facilities Master Plan recommendations, were used in the development of a new technology plan and its Key Recommendations.

Furthermore, the CTC reviewed the USDE and California Community College technology plans along with the ISTE website and *Horizon Report* to garner much needed information on the direction of technology in education and emerging technologies.

The new comprehensive plan provides the groundwork for improving the use of technology throughout the EVC community. There are several key recommendations; the most pertinent are discussed in the Executive Summary followed by a more detailed discussion in subsequent sections.

Executive Summary

The Campus Technology Committee (CTC) recognizes the importance of technology throughout the campus. To meet the college mission *“to empower and prepare students from diverse backgrounds to succeed academically and to be civically responsible global citizens”* and the first strategic initiative *“Student -Centered: We provide access to quality and efficient programs and services to ensure student success. Areas of focus are: Access, Curriculum and Programs, and Services”* will require innovative use of technology across all areas of the college.

The CTC membership represents many areas of the college; in addition the district supervisor of Campus Technology Support Services (CTSS) is a member, providing a much needed link to district Information Technology Support Services and infrastructure. This group determines policies and procedures for the technology and related technologies impacting student learning, and faculty and staff usage.

Technology needs across the institution varies widely depending upon the work requirements. Therefore, this report is broken into four distinct areas of address: Academic Affairs, Student Affairs, Administrative Support, and Infrastructure. Inherent in the plan are the *Educational and Facilities Master Plans*, Achieving the Dream Initiative, and resource and budget allocation process.

The report makes five [Key Recommendations](#) based on information collected at the college-wide Professional Development Day on April 8, 2011. These recommendations are ambitious, and the CTC realizes it will need to take some initial steps to attain the overarching goals. The most salient of these are:

- Development of execution plans and timelines to:
 - Create a comprehensive Distance Education Plan
 - Review, revise, and develop new Technology Policies and Procedures when necessary.
 - Explore the active Campus Portal
 - Review, revise, and update EVC webpages
 - Review, evaluation, revision of the EVC Technology Plan on a recurring cycle
 - Create a template for technology needs addressed in Program Review and Annual Reports.

It is hoped that this new plan will lay the groundwork for future technology use at EVC. With the difficult fiscal situation this work will not be easy. The CTC, CTSS and ITSS will need to collaborate to address budget, support, and infrastructure issues with all technological use at the institution.

Academic Affairs

Evergreen Valley College has implemented technology usage across all aspects of student learning and learning support. Students have wireless access throughout EVC. Seventy-four percent of current classrooms are Smart Classrooms which house a pushbutton interface to turn on the ceiling mounted data/video projector and control its inputs: VCR, DVD, and PC. All instructional labs have similar capabilities in addition to up-to-date computers and monitors for each seat. The institution maintains technology enhanced labs for automotive, business, language arts, mathematics, science, nursing, and other departments; SARS TRAK is used to track positive attendance. The performing arts program utilizes technology enhanced theater space. In the Learning Resource Center, four of the smart classrooms have computers and monitors at each seat. In addition the Library's Electronic Research Area may be used as a smart classroom with individual student computers to train students in research techniques utilizing technology, or used as an open access research area depending on need. The Library also has online catalog and web based database access, as well as 24 laptops for student checkout. The Tutoring Center has implemented online training and is working to expand online access.

The DSP office utilizes the following assistive software to assist students in their academic endeavors:

Dragon Naturally Speaking – The program will recognize a person's speech and transcribe it to text. This program allows the individual to speak computer commands or dictate documents instead of using the mouse and keyboard. Usually the individual has to use the keyboard occasionally but can get by without any use of the mouse. It is used most by persons who have some sort of hand injury or who have disabilities affecting motor control such as muscular dystrophy. The person using this program must spend some time and effort to train the program. Once the program is trained, it can have very good accuracy in recognizing the individual's speech.

JAWS – This is a computer screen reading program. It is used primarily by blind or visually impaired individuals to generate audio from information on the computer display. A proficient user can do most computer functions without seeing the display. For example, a blind student can use it with Microsoft Word to create a paper for a class. It substitutes keyboard commands for all mouse functions. A person using it must receive some training on it to become familiar with how it works and should be able to touch type.

Kurzweil 3000 – This program will recognize text from computer files or from documents scanned by a scanner attached to the computer. It will synthesize audio to speak the text to the person using the program. This program is used by many DSP students who have learning disabilities. Such students benefit from hearing material such as textbooks or class handouts as well as reading the printed material. DSP students with proper accommodation authorization may receive a CD-ROM that contains computer files of their textbooks. This allows the student to have this program read the textbooks to them. This program is available in the reading and writing labs and in the Library as well as in DSP. I understand that ESL students not in DSP occasionally use the program as an aid to learning English.

Read & Write Gold – This program works with Microsoft Word. It generates audio from whatever is typed into Word and has several other features that help in the preparation of Word documents. It is used by DSP students with learning disabilities who have trouble composing Word documents.

ZoomText – This is a screen magnification program. It can be used by visually impaired persons to enlarge the image on a computer display. The degree of enlargement is adjustable to fit the particular user. All enlargements are done in software so that no special hardware is required.

In addition to the software described above, DSP has hardware as described below.

Optelec Enlarger – This device allows visually impaired students to enlarge reading materials. It has a platform that holds the book, handout or other item to be enlarged. A display above the platform shows the enlarged image. The platform position and amount of enlargement is adjustable.

Victor Reader Wave – Ten of these that can be loaned to students. They are portable CD players that will play “talking book” CDs that we can order. They have special features that make them easy to use by blind or visually impaired students.

Braille Note – One for loan to a student. Think of this as an iPad for a blind person. In place of a visual display, it has a refreshable Braille display which shows a line of Braille text up to 32 characters long. This line of text changes under control of the user so that a long stored document can be shown in Braille one line at a time. It also has a Braille keypad that allows the user to enter text. The person using this must be proficient in reading and writing Braille.

Sorenson Video Relay – This is a video telephone system designed to allow deaf persons to communicate with each other. Think of Skype with special features for deaf individuals. A deaf student needing to make a call can come to DSP to use this system. It includes a service that allows deaf persons to communicate with hearing individuals through a sign language interpreter.

In addition to what is described above, EVC has several software packages that are used in GUIDE 115 classes that help students learn various subjects. These classes have been discontinued for the time being. One of these programs, “Five Finger Typist”, is installed in the Computer Individualized Instruction Lab (LE-204). This particular program can be used by someone who has suffered an injury and needs to learn to type with one hand.

There are also a number of items, both hardware and software, that are used to prepare material for students in DSP.

ADA ready computers loaded with most of this software are strategically placed on campus to allow students access outside of the DSP office.

The Technology Resource Center (TRC) trains faculty and staff in technology and software usage. Training activities are provided during Flex and other days throughout the academic year. Moodle, an open source Course Management system is gradually being accepted by more and more faculty since it was implemented one year ago. The Adjunct Faculty Center provides adjunct faculty a location to work on computers to develop course materials, check their email, and access web based resources.

Curriculum uses an electronic course form to propose new and review existing courses; however a hard copy is necessary for signatures and to maintain paper files. In addition, the forms are housed on the district office data warehouse in a curriculum file located in the research and planning area. Once curriculum has been approved the course information is entered into the California Community College Curriculum Inventory for approval by the state. Once approval is received, the EVC Curriculum department is given a course control number and the course information is entered into EVC's Datatel System for use in many departments on campus.

Planning, with its heavy emphasis on data, has demanded better access to more data as well as more easily understood data. Oracle Discoverer software and the 320 Reporting Portal have improved access to data by administrators, faculty, and staff and informs all Program Review and Planning processes. Additionally, faculty, their divisions and programs utilize MyWeb to manage enrollment, maintain rosters, and report final grades.

The Campus Technology Committee develops policies and procedures related to technological standards utilized for instructional as well as other activities such as student affairs and administration needs.

Needs

- Develop a Review cycle of all webpage information.
- A systematic, continual review process on the effectiveness of technology in the classroom should be put in place. This should include hardware as well as software along with training and personnel needs; ideally it would be incorporated into the annual reports, program review, and resource allocation processes.
- Increase in alternative instructional delivery systems with a continual review and assessment cycle. Focus on standardizing Universal Design access in courses per the Distance Education Accessibility Guidelines 2011: http://www.htctu.fhda.edu/dlguidelines/dlg_index.html
- Moodle is open source and maintains an active online community which may be utilized to explore how others are utilizing this software, connect with them and leverage resources.
- In curriculum, use of electronic verified document signatures and document imaging should be explored to streamline processes and records. Movement to CurricUNET would streamline curriculum processes on-campus and with state reporting/approval procedures.

Future Trends

Mobile Computing

Mobile computing use is rising with the availability of WiFi access. More and more students are making use of smart phones, iPods, iPads, netbooks and the like to create learning opportunities anywhere and anytime. Out of class learning can now take place during multiple spare moments throughout the day, such as while waiting for a doctor appointment or using public transportation. Students are developing apps as class work as well and using them. Use of these devices is being incorporated in many professions such as medicine, high tech, and business. Education needs to get on board or be left behind.

Open Content

Today, there is a tremendous variety of open content, and in many parts of the world, open content represents a profound shift in the way students study and learn. Far more than a collection of free online course materials, the open content movement is a response to the rising costs of education, the desire for access to learning in areas where such access is difficult, and an expression of student choice about when and how to learn.

Centralization

Many colleges are moving to centralized computer labs or learning resource centers for a variety of reasons including lower TCO by reducing additional facility, employee and infrastructure costs as well as leveraging universal design and access costs.

Recommendations

Short Term

- Create and implement a timeline for creation of frame work for technology assessment tools, and distance education plan, include review cycles and revision cycles.
- Develop a framework and review cycle of all webpage information.
- Explore emerging technologies and how they may be utilized.
- Look at what other colleges are doing with Moodle and Distance Education. Why reinvent the wheel? Use what will work at EVC.
- Develop a Distance Education Plan with a focus on expanding current offerings per the Educational Master Plan recommendations. The framework should include current capabilities, technology assessment, implementation of emerging technologies, training, and total cost of ownership in addition to the Distance Education Accessibility Guidelines 2011:
http://www.htctu.fhda.edu/dlguidelines/dlg_index.html

Long Term

- Develop a structured assessment and training program for faculty and staff to support the expansion of distance education.

- Continue to review emerging technologies for implementation in Distance Education Plan and Technology Plans. Move ahead of the curve rather than always remaining behind the curve trying to catch up to students and other colleges.
- Regularly review the timelines and frameworks in place for improvements and necessary adjustments.
- Look into technology to reduce paper and improve workflow in academic areas such as Curriculum; e.g. Curricunet software application, verified electronic signatures for curriculum approval forms, document imaging of old records to reduce storage issues.

Student Affairs

The focus of Student Affairs is to establish and maintain a thorough matriculation process that supports students to their ultimate informed goal. This is accomplished by providing answers, clarifying goals, supporting instruction and empowering students to make their own choices.

Student Affairs supports the matriculation process through a variety of services that range from enrollment services to financial aid and counseling in addition to shared governance committees such as the Matriculation and Student Success Committee. Many of these programs rely on a technology rich environment while others require robust technological support. The District uses Datatel as its Enterprise Resource Planning System (ERP). Datatel, implemented in phases, has been integrated with third party products, such as XAP, Moodle, SARS, and is used by many of the areas of Student Affairs.

Enrollment Services

Admissions and Records

Admissions and Records is making steady progress to move to “green” technologies; this is expected to increase efficiency in work flows and storage capabilities by removing cumbersome paper processes. Processes made electronic to date include:

- Online applications are processed through CCC Apply. Prospective students apply on line and CCCApply directly downloads into our system at EVC.
- Electronic Add codes – Block add forms (in use since 2005) were replaced by electronic add codes in fall 2007 following one year of pilot program, thus eliminating overtime for staff the first four weekends of each semester. Responsibility for adds shifted from faculty and staff to student. In fall 2010, these electronic add codes via MyWeb were instituted.
- Online Census enhancement: This allows faculty to drop students as no shows within the first two weeks of school eliminating the delivery of paper rosters to A&R. A Pilot program with Engineering and Mathematics department is complete and all courses will begin online census in fall 2011.
- Installment payments for student fees—Beginning September 2010, functionality was added to Datatel to allow online installment payments of student fees. Students may now register for classes and spread payments over time; this will also allow students to order transcripts and make payment online. In addition to reducing A&R workload and paper processes, this functionality will help the college recoup some of the \$3.1 million in unpaid fees accrued over the past 10 years to the District, including \$1.2 million for spring 2010 in District-wide unpaid fees.
- Electronic Document System—EVC uses the Image Now system for high resolution document imaging. The imaging of 4200 external transcripts per year will eliminate paper processes and storage issues.

Outreach and Assessment

After prospective students file their application, testing for placement, called E-Compass, is now online: now EVC Outreach Department can give this test at local high schools (we installed the application at several high school sites). This test is also now loaded onto many other labs here at EVC for high volume “one-stop shops” such as Day at the Green in May.

The Assessment Center uses the Compass application for assessing and assisting in student placement. The Assessment Center has 30 computer stations available for testing and an overhead computer screen projection system. In addition Compass software is available at additional sites on campus.

International Students

Application information and forms are available on the EVC International Student Program webpage. Reporting of International Student status is completed through the Immigration and Customs Enforcement (ICE) SEVIS online application. All I-20 forms are submitted and printed from this site, and updates as needed are completed by the Designated Signing Officer of the college.

Financial Aid

Beginning in summer 2011, Evergreen Valley College implemented a new way for students to receive financial aid funds (refunds) from Evergreen Valley College, the *myEVCcard* from Higher One®. Founded in 2000, Higher One provides higher education institutions and their students with efficient, convenient and easy-to-use solutions to handle financial aid disbursements. Students will no longer have to wait for their financial aid checks to be received in the mail—a slow, cumbersome, and costly process for the Financial Aid office. Funds will be available on the myEVCcard immediately as they are released.

Counseling and Matriculation

Counseling

ESARS is available to make counseling appointments online. SARS, an electronic booking system is used on site to maintain counseling schedules and collect matriculation information. The SARS system also automatically calls students with appointment reminders including the date, time and advisor name.

In the spring 2010 semester, EVC piloted a MyWeb prompt to ensure student contact information and educational goals are up to date. Students log in to MyWeb and a pop up to verify home address, cell phone number, and Educational Goal is seen. Students may update the information themselves. Educational Goal choices are chosen from a drop down menu.

In addition, counseling documents are being migrated to writeable pdf files. Work with forms and documents in EOPS/CARE are complete.

Matriculation

The Matriculation and Student Success Committee and Achieving the Dream Work Teams use gathered data in addressing Achieving the Dream initiatives and supporting student success. Student data is gathered and evaluated to create understanding of how to better provide support to students enabling them to become more successful. Through this work EVC has initiated an electronic Early Alert System

enabled in MyWeb. While completing the census rosters in the third week of the semester, faculty can login to MyWeb and initiate student support by choosing criteria from a menu. Students receive an alert from counseling directing them to appropriate interventions/support services. This capability also better allows EVC to identify and chart issues relating to Matriculation.

SSS-TRIO (FasTrack)

A customized database is essential in tracking the performance of students within the TRIO student support services program. The data collected from this database is used to inform the required reports to the U.S. Department of Education. In addition, Datatel is utilized for budget applications as well as student records and information. The SARS application software is used to make counseling appointments for students in the program.

Needs

Online application: Soon this application process will offer multiple languages; also we want to offer Real Time application process. We want our own form server; also we want to move to dynamic application where we have more control over the questions we can ask (we do not have this currently through CCC Apply).

Future: Communications management in Datatel: everything electronically. Campus notices and registration notes can be a one button send. Can move from emailing the student of items needed to message on MyWeb page.

Evaluate Loading E-Compass on Macs at SJUSD high schools or moving to an internet based application such as Accuplace.

A&R in conjunction with Counseling and Matriculation staff needs a “cross training and information” seminar in all early matriculation stages. Currently students are sent to the wrong place and given incorrect information because the staff is unaware of other areas of the college. This is especially true when policies and procedures are modified, because these two departments are so closely related, they should both be aware of what current policies and procedures are.

Review cycle of all webpage information should be developed and implemented.

Future Trends

Contact Hours

With the increased availability of technology access to students in combination with fiscal issues, many colleges are using technology to increase student services with fewer contact hours. This is achieved through online advising, office hours, quick chat sessions, and other applications. As access and technology improve, institutions should evaluate creative uses of technology to address the continuing need to “providing more with less.”

Mobile Computing

Mobile computing use is rising with the availability of WiFi access. More and more students are making use of smart phones, iPods, iPads, netbooks and the like to create learning opportunities anywhere and anytime. Students use these devices to schedule appointments, monitor email and social networks, and complete collaborative work. In addition, many students now receive class cancellations, instructor absence notification, student services appointment reminders, and emergency notifications via their mobile devices via voice and text.

Recommendations

Short Term

- Utilizing future trend information, implement a plan for providing additional academic counseling and advisement services to students. (EM).
 - Expand to E advising
 - Implement an electronic SEP
- Investigate the possibility of using other modules in SARS
- Complete implementation of My Web active portal for students, e.g. message center for student notifications.
- Make Degree Audit available to students
- Pilot all new student services applications with students to assure ease of use.

Long term:

- Design and implement a comprehensive campus communication plan to easily inform staff and students; e.g. campus activities, news, class cancellations, instructor absences, and emergency notifications, department and other policy and procedural changes. Assess future trends for inclusion in the plan.
- Implement EDI Speed Transaction Set Interface – Electronic Transcript capability to import & export data between institutions
- Evaluate E Compass for the Mac platform at SJUSD high schools or moving to Accuplace or another internet based application.

Administrative Support

Campus Technology Support Services (CTSS)'s critical mission is to increase technology resource access to all students, staff, and faculty. In this role, CTSS works closely with the District and ITSS to maintain and improve our infrastructure and security.

CTSS provides the following, but not limited to, services to the campus:

- Desktops (PC & Mac)
- Laptops (PC & Mac)
- Printers (networked and standalone)
- Network
- Audio and video systems (AV)
- Projectors and videoconferencing

The CTSS Supervisor works collaboratively with the Campus Technology Committee (CTC) and the District Technology Committee (DTC) to provide technology leadership for Evergreen Valley College (EVC). CTSS support is centralized within the campus, which means all the requests go to the Help Desk at HelpDesk@sjeccd.org. The Help Desk then distributes the service tickets to CTSS technicians. Each computer lab has an assistant to provide daily basic support for students. Information technology assets are distributed across EVC, which are registered and tracked with our inventory system (iTrak).

In 2009, CTSS set CTA goals for the next 3-5 years to align with EVC's strategic plan. In this plan, CTSS takes into consideration many emerging technology and trends that arrive on campus. The new generation of students who enroll in our college carries an array of mobile devices, from iPhones to laptop computers and netbooks. These students rely on different tools such as social networking (Facebook, MySpace, LinkedIn, and others), blogging, Twitter and web video sites like YouTube to learn from one another and accumulate knowledge. In order to keep up with the growing needs of these students, CTSS continues to upgrade the campus network infrastructure, classrooms, labs, and audio and visual technology. The goal is not only to provide a technology-ready environment for our students, but also to create campus life experience for students through access to EVC events and student activities. The mission and goals of CTSS are currently under review for revision with the upcoming cycle of program review and recommendations from this technological plan. The new goals will be reviewed on a continual basis through the annual report process.

Needs

CTSS staff needs continual training and cross training in existing and emerging technologies for quick adoption by the college.

Improve achievement of industry IT support standard of 150 or fewer computers per technician.

Future Trends

Process Design Teams

In addition to fragmented data systems, the silos created by funding programs, tradition, and interest groups present a major barrier to improving the productivity of our education system. When those responsible for a given function are isolated from others within the same organization, they tend to develop practices and procedures that are optimal only from their own perspective. In addition, decisions made in one portion of an organization may create tension with decisions made in another.

To ensure better alignment in decision making, states and districts should develop process-redesign teams that cut across functions and follow the process rather than looking at work flow only within a given office. In addition, federal and state policies and regulations should be reviewed to identify and remove barriers to more efficient use of resources within schools and districts. Policies also should be reviewed to remove practices that keep technology functions isolated from the functions of teaching, learning, and assessment. These include separate funding streams and restrictions on the use of funds that reinforce the isolation of the educational technology function.

Recommendations

Utilize the ISTE website and Technology Support Index information to inform standards for technological support and infrastructure.

Review the national, state and Horizon Technology Reports to find emerging trends and implementation of technology on a higher level.

Explore creation of process design teams to enhance collaboration in the decision making process.

Infrastructure

In 2006, in coordination with the District's technology department (ITSS) and various contractors, CTSS rolled out Voice-Over-IP (VOIP) phones on campus. This project gave CTSS an opportunity to evaluate and upgrade network cables and equipment in the administrative network. Cables, network equipment, Main Distribution Frames (MDF) and Immediate Distribution Frames (IDF) closets were upgraded as a result of the campus modernization project, which will keep the student network reliable while accommodating high-bandwidth teaching and learning applications in the foreseeable future. As of today, EVC wireless access covers the entire campus. Based on VOIP phone requirements, network cables in the buildings were upgraded to CAT5E and EVC's network core infrastructure was built around Cisco networks routers, switches, and operating system software. SJECCD routers provide wide-area network (WAN) connectivity to the District Office, Evergreen Valley College, San Jose City College, and Workforce Institute. Switches are typically interconnected via a one gigabit trunk in a star topology on 6-strand multi-mode 62.5 micron fiber. Recently, as part of the bond building projects with the new buildings, some new 50 micron multimode fiber has been installed between EVC and the District Office and added to the backbone for future growth. While most network connections are switched 10/100 mbps Ethernet to the desktop, current computer and server network interface cards are capable of gigabit Ethernet.

Servers were replaced and consolidated from sixteen to ten and run on Windows 2008 to improve access speed, reliability, storage capacity, and backup capability. Virtualization technology will be deployed when practical to achieve sustainability.

EVC's server room has a backup generator, able to provide power to core systems. Backup uninterruptible power supplies (UPS) exist for network equipment in individual buildings. These UPS devices provide power for approximately 60 minutes as well as condition power levels and protect equipment during spikes and outages.

Technology Replacement Plan

Technology replacement or upgrade requests are made through the program review, annual report, and resource and budgeting allocation processes. The CTSS Supervisor maintains an inventory of current technology in use along with current standardized equipment specifications. Needs are determined by each department/program through the program review process and are sent to the appropriate Dean. The dean may then ask for a recommendation and quote based on the request. This is completed by the CTSS Supervisor and returned to the Dean. The Dean then decides whether the request will be approved, the funding request then moves through the appropriate administrators for final approval.

Due to renovation and building improvements over the last seven years, 74% of classrooms on campus are now smart. The Nursing computer lab (S204) has been expanded to accommodate more students. The computers in S204, LE228, LE231, AD141, AD143, and SC125 (Reading Lab) were upgraded with flat LCD monitors. In addition, there are now three ADA-ready stations added to the lab. In order to

accurately capture positive attendance in the labs, seventeen SARS TRAK Timekeeper stations were deployed. To provide computerized tools for automotive students, eight laptops were replaced. Twenty-four laptops allocated for student checkout and use within the Library were upgraded. Above all, the majority of the oldest computers in staff offices were replaced with new computers through the Technology Replacement Program.

Currently, new and replacement computers purchased will contain the Windows 7 platform and work continues in upgrading existing computers on campus to Windows 7. CTSS staff has sufficient training to support issues associated with migration and employee needs.

To accommodate more students in placement tests at one-stop-shop orientations (such as Day at the Green yearly in May), E-Compass software was installed to all computers in the Learning Resource Center on the second floor of the Educational Technology Building. In addition, a new pay-per-print service was installed to make it easy for students to use copiers and printers in the labs; student ID cards can now be encoded for cash value to be added, eliminating the need for a separate print card.

Security and Virus protection

To guard against viruses and illegal downloading of software, Sophos was deployed to all campus networks. The proper use of computers is also enforced through the Acceptable Use Policy and Laptop Use Policy, which ensures that no lab or student computers are given administrative privileges.

Needs

- A systematic review of existing technology needs should be developed. Technology standards should be researched and documented based on current educational technology standards.
- Training for faculty and staff in the capabilities and efficient use of smart classrooms
- Fully utilize the new theater to generate additional revenue.
- Complete upgrades of all classrooms to smart classrooms
- As we are looking forward in 3-5 years, CTSS plans to complete the upgrades of campus network infrastructure including its equipment and environment support for MDF/IDF closets, smart classrooms, labs, servers and scalable storage, and implement backup services for staff computers. CTSS will also migrate to Microsoft Windows 7 as a standard OS platform when practical, depending on the readiness of hardware and software.

Future Trends

Virtualization

To help build out an infrastructure for learning, districts and schools should begin a transition to the next generation of computing system architectures. As a first step, districts should consider options for reducing the number of servers they run through consolidation using virtualization. Virtualization allows a single server to run multiple applications safely and reliably, so that districts can reduce the number of

servers on their networks dramatically. Reducing the number of servers cuts costs and makes school networks less complex and easier to manage, which leads to greater reliability as measured by uptime and availability.

Cloud Computing

Beyond server consolidation, some school districts are moving to cloud computing, which involves shifting from the procurement and maintenance of servers in local datacenters to purchasing software as a service (SaaS) and web applications from datacenters running in the cloud.

Cloud computing is a catchy new name, but its principal outcome – utility computing – has been sought after for a long time. Utility computing is the packaging of computing resources as a metered service similar to how public utilities package and sell electricity through our nation’s power grid. What makes cloud computing more desirable and possible is that we are nearing an inflection point driven by technology advances and the need for more powerful and collaborative platforms at lower cost and with a lower environmental impact than our current datacenter computing model. (Office of Educational Technology 2005) The downside is the college loses control of its own data.

Interoperability Standards

Advances in technology and a recent policy emphasis on using data in decision making have resulted in much improved data in many districts. Still, although almost all districts have electronic access to such data as student demographics, attendance, grades, and test scores, less than half have the ability to combine data from different types of systems so as to link student outcome data to data about specific instructional programs, teacher characteristics, or school finances (Gray and Lewis 2009; U.S. Department of Education Office of Planning, Evaluation, and Policy Development 2010). Combining data from these different types of systems will require at a minimum the development and use of content, student-learning, and financial data interoperability standards. Over time, it will require designing, developing, and adopting integrated systems for collecting the complex forms of data needed and for deriving meaningful interpretations relative to what is measured. Use of Process Design Teams as mentioned earlier may prove useful.

Recommendations

Utilize the ISTE website and Technology Support Index information to inform standards for infrastructure.

Review the USDE, California Community Colleges, and Horizon Technology Reports to find emerging trends and implementation of technology at a higher level for possible impact or adoption at the district and college level.

Based on new program review, resource allocation and annual status report models, an electronic technology request form could be developed as part of the new process. Standardized hardware and software specifications including total cost of ownership should be developed and maintained by CTSS; however the final decision on purchase and implementation of these items should rest with the shared governance process and the administrator who manages the budget used for purchase.

Key Recommendations Planning Grid

Key Recommendation 1:

Expand online and hybrid offerings and ensure student readiness for all online/hybrid courses. Low cost of ownership is an important goal. Ensure faculty, and staff have the necessary support services and equipment to effectively offer courses and services via alternate delivery systems.

Strategic Planning	Academic Affairs	Student Affairs	Administrative Support	Infrastructure
Student Centered: Access Organizational Transformation: Student Access Educational Master Plan #3	Expand the number and type of course offerings available via alternative instructional delivery systems.	Expand the number and type of course offerings available via alternative instructional delivery systems; e.g. Guidance courses	Ensure faculty, and staff have the necessary support services to effectively offer courses via alternate delivery systems.	Ensure faculty, and staff have the necessary equipment to effectively offer courses via alternate delivery systems.

Key Recommendation 2:

Encourage student success by providing early support and services via mandatory faculty participation in online census and increased usage of electronic early alert. Make additional counseling and tutoring available in alternate delivery systems, along with analysis of retention and completion data.

Strategic Planning	Academic Affairs	Student Affairs	Administrative Support	Infrastructure
Organizational Transformation: Student Access: Completion of Educational Goals	Mandatory participation in online census.		Training in utilizing the online census application within MyWeb.	Ensure the network and equipment can handle the increased load.
Achieving the Dream Educational Master Plan	Increase faculty participation in early alert	Implement a plan, including a technological component, to provide additional guidance and orientation services to students.	Ensure faculty, and staff have the necessary support services to effectively deliver services via alternate delivery systems.	Ensure faculty, and staff have the necessary equipment to effectively offer services via alternate delivery systems.

Achieving the Dream	Analyze retention and completion data for all certificate and degree programs	Provide support and services via progress report, counseling, tutoring	Application and Portal Training; IT support	Office of RIE, Datatel and 320 Portal
Educational Master Plan	Online tutoring sessions	Explore online tutoring sessions through SSS and WIN/CalWORKS.	Ensure faculty, and staff have the necessary support services to effectively deliver services via alternate delivery systems.	

Key Recommendation 3:

Increase on and off campus community engagement by developing and implementing a comprehensive college communication plan that includes available technologies—e.g. RSS new feed, EVC Facebook, Ning or other social networking account, free web posting on sites such as radio stations, and an improved website that “Pops.”

Strategic Planning	Academic Affairs	Student Affairs	Administrative Support	Infrastructure
Community Engagement: Increase Visibility and Building Campus Community	Assess technology needs for effective communication with academic affairs staff and students. Work with CTC to design and implement.	Assess technology needs for effective communication with student affairs staff and students Work with CTC to design and implement.	Staff to maintain the RSS feeds, Facebook status work with outside agencies and restructure Webpage navigation. Work with CTC to design and implement.	Determine if current infrastructure is adequate to handle implementation of the Communication Plan. Look at TCO for any additional costs.

Key Recommendation 4:

Develop and implement a professional development plan for faculty and classified. Include online workshops on topics such as online course development, best practices, and CMS (Moodle) and professional development/upward mobility training. Include a regular review process that addresses assessment and revision of the professional development plan based on strategic planning and resource allocation processes.

Strategic Planning	Academic Affairs	Student Affairs	Administrative Support	Infrastructure
Organizational Transformation: Employee	Assess needs for training faculty and staff in online delivery	Assess needs for training faculty and staff in online	Ensure faculty, and staff have the necessary support	Ensure faculty, and staff have the necessary equipment

Recommendations P

<p>Development Educational Master Plan Achieving the Dream</p>	<p>systems and other technologies to improve work flow and upward mobility.</p>	<p>delivery systems and other technologies to improve work flow and upward mobility.</p>	<p>services to effectively offer courses & services via alternate delivery systems.</p>	<p>to effectively offer courses & services via alternate delivery systems.</p>
	<p>Increase @ONE online training awareness Work with CTC to create and implement training plan</p>	<p>Increase @ONE online training awareness Work with CTC to create and implement training plan</p>	<p>Work with CTC to create and implement training plan</p>	<p>Designate a staff training room in the facilities master plan revision process.</p>

Key Recommendation 5:

Review, strengthen and implement a comprehensive Emergency Preparedness Plan that includes a regular review and assessment cycle per state regulation. Include available technologies to respond to different levels of emergency and communication needs, such as automated text messages to students. Integrate with the college communication plan, strategic planning and budget allocation process.

Strategic Planning	Academic Affairs	Student Affairs	Administrative Support	Infrastructure
<p>Organizational Transformation: Employee Development College Goal</p>	<p>Assess technology needs for effective communication with academic affairs staff and students in the event of an emergency. Identify other communication needs for division. Work with CTC to design and implement.</p>	<p>Assess technology needs for effective communication with student affairs staff and students in the event of an emergency. Identify other communication needs for division. Work with CTC to design and implement.</p>	<p>Ensure faculty, and staff have the necessary support services to implement technology applications within the emergency and communication plans. Work with CTC on developing needed training for communication tools.</p>	<p>Ensure the equipment for the emergency and communication plans are adequate for its needs, including TCO; i.e. maintenance, upgrades, repair etc.</p>

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