Digital Fluency

Innovation

Resources

Communication Flexibility

Sustainability

Technology Master Plan 2014-2020



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Technology Planning and Budget Process

Technology Planning and Budget Process

The Technology Master Plan is an integral part of both the Allan Hancock College decision making process and planning and budgeting process. In accordance with the Councils and Committees Pathways to Decisions (CCPD) Manual, the Technology Council has primary responsibility for the development of the technology plan. The Technology Council is a shared governance committee co-chaired by the director, information technology services and an academic senate nominee. The plan is developed by the council with assistance from many departments and groups. See appendix A for the list of Technology Council members. The plan is updated on a regular basis to address evolving technology and planning priorities. The Technology Master Plan supports the future direction of programs and facility technology needs identified in the Educational Master Plan and the Facilities Master Plan.



Introduction

The Technology Master Plan creates a foundation and vision for college-wide technology planning, implementation, and policy-making. The plan describes how we use technology to support the mission of the college. Technology facilitates access to services and resources, which enhance student learning and success. This plan addresses how technology is accessible to our diverse population. The Technology Master Plan addresses the technology decision-making process and budgeting challenges. See Appendix B for the revision history.

Goals

The plan is organized around the following goals:

- 1. Provide an environment that fosters creative and innovative uses of technology, and meets the requirements of learning in a digital age.
- 2. Have technology systems that are reliable and secure.
- 3. Support digital fluency among students, faculty and staff through training to enhance their professional activities and enrich student learning.
- Provide students with access to and knowledge about technological resources across social, economic, and physical barriers so they may become responsible and well-prepared digital citizens.
- 5. Provide technologies that facilitate assessment of student performance including course, program, and institutional learning outcomes.
- 6. Promote technologies that facilitate communication between and within groups in the campus community, and encourage public life and civic engagement.
- 7. Strive for compatibility and integration of information technology applications and systems.
- 8. Enhance distance learning activities and support for online student success.
- 9. Ensure that the procurement and implementation of technologies is consistent with and responsive to the input and needs of students, faculty, and staff.
- 10. Ensure that the implementation of technology is consistent with the goals of academic freedom.
- 11. Maximize individual flexibility and choice regarding when, where, and how instructional activities and support services can be accessed and used effectively.
- 12. Formalize a sustainability plan for technology that includes infrastructure, annual replacement needs, and ongoing costs; and minimizes the district's expense when Bond Measure I funding ceases.

Plan



Dell

50

The Rosetta Stone

Plan

Goal 1 – Innovative in a digital age:

Provide an environment that fosters creative and innovative uses of technology, and meets the requirements of learning in a digital age.

- Faculty, staff and students will regularly engage with technology.
- Faculty and staff will evaluate new products and services and watch for trends.
- Faculty and staff will constantly explore new avenues of funding.
- The administration will support and encourage technology experimentation.

To stay current, Allan Hancock College (AHC) faculty, staff and students must regularly engage with innovative technology. Constant evaluation of new products and services is required in order to prepare our students for the competitive job market. Trends include audio and video-streaming, cloud computing, digitized publisher content, tablets and other mobile devices, and web-based open educational resources. Faculty and staff must constantly explore new avenues of funding to cover the expenses of cutting edge products, software and hardware upgrades, and updates that improve teaching and learning.

AHC must also foster an environment where faculty and staff are strongly encouraged to experiment in developing innovative instructional methods to address the evolving student population.

To accomplish this, the College will continue to use a variety of approaches that include:

- Professional development—Fund faculty and staff to attend technology conferences and trainings. In addition, continue to offer frequent in-house workshops on new technologies.
- Committee Work—The Technology Council and all of its committees will review and discuss new products and make recommendations for purchase.
- Journal articles and other literature—Keep-current with research and innovative approaches to technology in education.
- Satisfaction surveys—Periodically survey students, faculty, and other stakeholders regarding their technology use patterns and suggestions for improvements.
- Alternate funding—Include technology and innovation in grant proposals and seek out partnerships and creative approaches to acquiring technology.

The amount of funding the College receives frequently determines student, faculty, and staff access to technology. In addition to replacing hardware, software, and devices that quickly become outdated, it's also critical to cover license fees and upgrades. Funding and ongoing training are two of the biggest challenges that AHC faces in both embracing innovation and

maintaining technology that students need to function well, whether their goal is transfer or employment.

Goal 2 – Reliable and secure:

Have technology systems that are reliable and secure.

- To minimize maintenance and enhance reliability, as well as maximize discounts and efficiency, AHC will continue to standardize computers and printers.
- AHC will protect networks, servers, and computers with measures including firewalls, SPAM filters, and antivirus software.
- The College will physically secure and protect technology assets.
- AHC will provide redundancy and disaster recovery provisions for mission critical technology services.

Standards

To maximize reliability, efficiency and discount pricing, the College has established minimum computer, peripheral (printers, scanners, etc.), and software standards which are reviewed regularly by the TAC committee and Technology Council. Staff and faculty needing to replace obsolete equipment or request new equipment can find the current standards on the college portal, along with vendor and price quote information. Computers or other equipment that sit outside these standards due to the special requirements of a particular job or function (Campus Graphics, for example) are acquired in consultation with the Director, IT Services.

Reliability/Security

Protecting the networks, servers and other technology assets of AHC, both physically and virtually, is an essential function of IT Services. Central administrative systems such as Banner and ONESolution and the network infrastructure are the most critical to the operation of the college. These mission critical systems along with the sensitive data they store are the primary focus of the security measures. A variety of well-researched and effective security measures are utilized in the data center, including products such firewalls, antivirus, and SPAM filters. The SPAM filter was catching about 2.4 million potential spam and virus emails a month, but this number has been greatly reduced since the United States Justice Department has gone after the large organizations that accounted for the majority of SPAM. AHC Technicians respond promptly to reported security issues, and when appropriate, campus police also respond. Systems are monitored 24/7 for problems.

Physical Security

Physical security includes basic measures such as warranty registration, surge protectors, locked laptop carts and security cables for computers and classroom projectors, as well as secure, climate-controlled areas for servers and other essential infrastructure. Campus police and security patrol regularly, and technicians can remotely monitor certain types of equipment. AHC owns etching equipment to engrave ownership on laptops and other equipment, which aids in recovery in the event of loss or theft.

Disaster Recovery

IT Services has a disaster plan in place to ensure critical data is backed up to an offsite location in case of an emergency, such as fire or earthquakes. In case of power outages, there is a backup generator to support essential functions run out of the data center. The 2014-2024 Facilities Master Plan includes the direction that critical technology infrastructure will be protected with emergency generators, uninterrupted power supplies (UPS), redundancy, physical barriers, and emergency procedures.

Goal 3 – Digital fluency:

Support digital fluency among students, faculty and staff through training to enhance their professional activities and enrich student learning.

- The College will provide innovative training strategies to reach faculty and staff at point-ofneed.
- AHC will continuously update technology used for faculty and staff training and support.
- Training for administrative services technology will continue as needed.
- Employees will be encouraged to attend online webinars which are usually free or a minimal cost.
- Students will be provided training and support through their courses, lab work, student support services, and student help desk.



Student Help Desk

To provide quick training and technology support to all onsite and online AHC students, a student help desk is staffed through Admissions and Records. The help desk fields hundreds of questions each month primarily through email and phone contacts. Frequent student problems include login/password issues with the online course management system and student portal, difficulty understanding the online schedule, online registration questions, and help with browser and document format issues. Questions on student services and how to contact instructors and staff are also common.

Through tracking student help desk question categories and analyzing data, valuable information is provided to IT Services, the Web Services Committee, and other staff on which online features, processes, and services students find confusing or difficult to use. The student help desk was originally a grant-funded project with limited hours. Funding and training help desk staff will be the ongoing challenges in the future. Moving forward, if funding can be identified, it would be valuable to expand hours to as close to 24/7 as possible during the online registration period prior to each semester. Staff will need to continually be trained on any new systems, programs, and/or devices used at the College.

There are also various online self-help features for student training that will continue to be maintained and edited as needed. These include Blackboard help tools, portal password/login help features, and help features throughout the public website.

Teacher Learning Center (TLC)

For faculty and staff, the Teacher Learning Center (TLC) serves a wide variety of technology training needs, from vendor product demonstrations and webinars to fostering innovation in the classroom. From its inception as a Title III grant project in 1995, the TLC has been the place at Allan Hancock College to learn the latest in technology for the classroom. The TLC was completely updated in 2013 to stay current with mobile technology trends.



Use of the TLC ranges from hands-on iPad workshops for twenty people as part of professional development, to office hour space for technical support staff and instructional designers who work one-on-one with faculty. Much of the training for the College's online teaching platform occurs in the TLC, as well as how to use various online assessment tools.

The challenges moving forward are to continue to secure funding for innovative technology, and utilizing techniques such as online tutorials and live streaming of training sessions to reach the maximum number of faculty.

Goal 4 – Technological resources:

Provide students with access to and knowledge about technological resources across all social, economic and physical barriers so they may become responsible and well-prepared digital citizens.

- AHC will provide computer labs and resources to meet all the needs of our students.
- The College will strive to provide low income students with technology lending programs to reduce economic barriers and provide access outside of campus.
- AHC will provide students with disabilities the accommodation technology needed to succeed and to meet our requirements under the ADA.

Computer Labs

AHC provides a range of computerized labs to support instruction and provide access to students needing adequate computer capacity to access online courses and complete academic assignments. These labs may be located at any physical site and may be discipline specific such as the Graphics or Basic Skills Labs or available to the general student population such as the Open Access Lab. Attendance is tracked in most labs through I.D. card swipe systems.

The software used in labs varies from general word processing to specific discipline support such as Plato or Aleks. Hours of operation and policies also vary based on a variety of factors including student needs, resources available, qualified staff, and course requirements.



All labs at AHC are heavily used, with no projected decrease in the future. Many courses have a mandatory lab component, and our student demographic data and surveys indicate that many of our students do not have adequate computer access in their homes. Challenges include keeping software licenses and versions updated to match industry standards and adequate IT Services technician staffing levels. Discussion is taking place about equipping labs with other mobile devices, such as tablets; initially, that is most likely to occur through grants or categorically funded programs. The 2014-2020 Education Master Plan identifies the need to

keep the technology in computer classrooms and labs current and expand the number and type of technology needed to support the various programs.

CARE/CalWORKs Laptop Lending



There are special programs such as CARE/CalWORKS, which have a laptop lending program with a goal of bridging the digital divide for students such as single parents on very limited incomes. These students lack the resources to afford technology access to be successful online students or complete their assignments at home. By affording access to portable laptop computers, students have the flexibility to complete classes and homework assignments at home

without having to incur child care costs. Before laptops are loaned to students, they complete a basic computers skills test to ensure they know computer operation basics. The students sign a contract with the CalWORKS coordinator that they will be responsible for returning the laptop in good condition. This program is very well utilized, and the program hopes to expand the number of laptops available to loan in the future.

LAP Technology and Assistive Equipment Lending Library

There is a program under the Learning Assistance Program to lend accommodation hardware and software to students with disabilities. This is used to fulfill our ADA accommodation requirements and to help students succeed in the college setting. Other services includes training and extra support services such as alternative media to be used with the devices, training in the use of the equipment and general training in learning strategies to best make use of the equipment. This program is well utilized and is necessary to meet federal and state guidelines.

Bookstore and Digital Content

There is a clear trend to move textbook and publisher content online at two- and four-year colleges. Both instructors and students will need to adapt to this delivery method. Many large publishers such as Pearson have agreements to provide content through Blackboard and other distance learning platforms. At AHC, instructors, technicians, and bookstore staff will all need to support students as they adjust to this environment. Campus libraries have been offering electronic book and journal content for many years and a slow but steady transition from print to



online resources as an efficient way to support academic needs will continue. While there is no discussion on an e-reader standard for the college at this time, that discussion may occur in the future. As is the case in other areas, training is a challenge.

Goal 5 – Assessment of student performance:

Provide technologies that facilitate assessment of student performance including course, program, and institutional learning outcomes.

- Allan Hancock College will continue to acquire, maintain, and improve on software and hardware that facilitate the assessment and evaluation of the following:
 - Institutional, program, and course-level student learning outcomes;
 - Student performance, both short and long term;
 - Student and employees' needs and satisfaction;
 - Faculty, staff, and administrators' performance.
- The college will increase the ease/convenience and expediency with which assessment tools and practices can be deployed and implemented.
- The college will assure that training is provided on the tools for assessing students, programs, and practices.

Allan Hancock College has acquired a variety of technologies to assist with assessment, from student response systems (AKA clickers) in the classroom to eLumen, the latter which is the software instrument selected as the repository for all student services outcomes and student learning outcomes.

Technology tools used for assessment



include survey software and iPad tablets. There are online early alert programs, which instructors use to notify students when they need to seek help in order to pass a course. The online student education planner (or SEP) allows students and counselors to design a custom program of coursework that students can easily access to determine their progress towards their individual goals. Instructor and administrative evaluations are now conducted online, and the portal is used as a vehicle for assessing student satisfaction in various areas. Assessment using mobile devices will continue to be a growth area. Assessment for program improvement and integrated planning play a prominent role in the overall effectiveness of the College. Technology will continue to play an important role in providing data for assessment in the future. Better technology tools such as Tableau are being planned to provide data in a visual format to improve understanding and to quickly recognize results.

Goal 6 – Communication and civic engagement:

Promote technologies that facilitate communication between and within groups in the campus community, and encourage public life and civic engagement.

- AHC will use efficient methods to maintain a quality and up-to-date district website.
- The College will increase and enhance internal service tools and communication for faculty, staff and students.
- AHC will explore and increase the effective use of social media among faculty, staff, students, and the general public.

AHC moved to a new, more easily updated content management system for the public website in 2011. The website is the main vehicle for communication between the college and the community, and moving forward it will be kept more current than was true in the past, and have more capacity for media-based information, such as videos. Important announcements and events have always been featured on the homepage, and now there is a prominent area in the new site for community information. A mobile version of the Hancock public website was launched in spring 2014.



Since the launch of the myHancock portal in 2010, both internal communication to college faculty and staff, and communication to students have greatly improved. The portal provides 24/7 access to a host of information items, including services, forms, and (for students) the ability to check transcripts and other important documents. The portal will continue to evolve as surveys and other indicators provide data to identify the most frequent, important, and desired features. AHC will need to continue to publicize the portal as the centralized place online for students to obtain services and information.

Email is still the primary means of communication for conducting District business with employees, students, alumni, and the community at large. The average number of email messages sent and received is about 250,000 per month. This number does not include the emails that are caught by our SPAM filters. In the October 2013 Technology employee survey, 93% responded that email was very useful in their job function. In the September 2012 myHancock survey, 58% of the students responded that they check their myHancock email at least once a day. However, based upon AHC surveys and industry research, email is no longer the preferred method of communication for traditional college-aged students.



Social networking continues to evolve at a rapid pace, and the College will use new media communication channels more intensely than it does presently. AHC will continue to use interactive sites, such as Facebook, for general information and dialog. In addition, use will become more official and formal in notifying students of acceptance into programs and providing emergency updates. It is anticipated that there will be wider interaction among students, as well as between students and the College. AHC is moving toward building community and interest through sharing photos, useful tips, and how-to's focused on supporting college life. This will include such topics as improving study skills, time management, and healthy eating on the go. As both students and staff move toward mobile applications, the College has begun to incorporate easily scanned quick response (QR) codes into publications as well as specialized landing pages and other more targeted electronic information.

Goal 7 - Compatibility and integration:

Strive for compatibility and integration of information technology applications and systems

- The College will continue its commitment to ongoing improvement of integrated technology systems.
- AHC will continue to train all staff to improve efficiency and processes.
- All staff will be trained to allow for access, when appropriate, to self-service in their own employment and benefits records.
- Systems and applications will be updated and upgraded on a regular basis to ensure compatibility is maintained.

In general, AHC attempts to consider integration capability as part of any technology project. For district systems, this is fairly easy and effective—for example, selecting the library system partially because it interfaces with the district's Banner system. This is much more challenging when working with grants, because those projects often focus more on innovation and not on integration.

It also is efficient and cost-effective to consider standardization and integration when planning support and training needs. This has been a major factor when considering open-source products that are low cost or free to acquire, but then need a great deal of programming and technical support.

Enrollment management is a critical focus as the college is again in a growth (restoration) mode. In the future data from student education plans could identify courses needed by term for students to complete their degrees and certifications. This should enable more effective scheduling as it is integrated into the student management system.

Financial System

AHC moved to a new financial system as part of the Measure I Bond modernization technology projects. The College selected the Integrated Financial and Administrative Solutions (IFAS) accounting and financial system, which went live in 2009. In conjunction with the new system, a great deal of computer hardware was modernized and upgraded. IFAS was upgraded to ONESolution in June 2014. This system will be used in the foreseeable future for all human resources and financial programs including managing budgets, accounting services, and procurement including online workflow approvals and receiving.

New web-based features are now possible with ONESolution. These include the ability for employees to access their vacation and other leave information, job applicants to apply using an interactive web form, and professional development activities to be managed through the Internet.

Training is provided for new versions and new hires as needed.

Payroll Services

The district payroll is processed by the Santa Barbara County Education Office (SBCEO). The county's system is in the process of moving to a new, modern system called Escape. When the new county system is completed in 2015, the plan is to integrate the ONESolution HR/ payroll system with Escape. This will improve internal controls and keep the personnel data in sync between the HR and payroll systems.

Updates

With over 50 commercial applications and several customizations deployed at AHC, it is critical to properly manage the integration and compatibility of these systems. Part of this responsibility is to keep products up to date with the latest security changes and patches. Periodic upgrades are also necessary when system changes occur to the operating system, JAVA, web browsers, etc. The upgrade of one product usually results in changes to other products in the integrated environment. To reduce the risk of problems and impacts to users from updates, AHC departments affected by the changes first verify the proper functionality in a test environment. When the updates are applied to the production environment, these departments then retest before the live system is made available to other employees and

student users. Significant upgrades to functionality must be carefully planned as they take integration time and usually require additional training for users.

Goal 8 – Distance learning and online student success:

Enhance distance learning activities and support for online student success.

- AHC will seek to expand the quantity and diversity of professional development for innovative technology in the online teaching environment.
- AHC will continue to explore technologies that enhance teaching, learning, and support services in the online environment.
- The College will continuously strive to improve faculty and staff training environments.

Distance Learning

To support the learning needs of our diverse population and to provide greater access to instruction, the District will continue to offer online courses and services. Faculty who wish to teach online must demonstrate technical proficiency in utilizing the learning management system (LMS), and a certification program will be developed to include pedagogical competencies. A mandatory orientation for online students is being explored, as a substantial number of new online students are underprepared for the distance learning modality, which in turn affects retention and success rates.

Options for LMS are being examined, including open source products and the state Online Education Initiative (see Appendix D for more information). A consideration moving forward is integration with other District systems, such as the student information system for data collection, populating course rosters, and grade submissions. The distance learning committee will continue to pursue this, as well as monitor the trend for increased digital publisher content, which may have a negative financial impact on online students.

An important aspect of online education is adequate support services. AHC has had a number of these services available for years, such as tutoring and the library. These services continue to evolve to meet student needs. For example, the library will focus on electronic resources that are accessible 24/7, and recently acquired a new catalog with features such as social media capabilities and better communication channels with staff. Training students, faculty and staff to use these resources is an ongoing challenge. Technology based solutions include virtual orientations and self-paced tutorials.

Newer services to online students in current development include an online student education plan program. Trends that will continue to impact online learning include social media, mobile devices, and increased multimedia instructional content. At the District level, the trend for onsite instructors (in addition to those who teach online) to utilize various features of the LMS will continue to have a tremendous impact on the limited support staff.

A number of new and developing services that will enhance the online learning environment are discussed below under Goal 11.

Goal 9 - Needs of students, faculty, and staff:

Ensure that the procurement and implementation of technologies is consistent with and responsive to the input and needs of students, faculty, and staff

- The College will regularly conduct surveys to determine technology needs.
- To ensure consistency and efficiency, the College will use standardized classroom technology.
- AHC will continue to support a wireless environment for maximum flexibility.
- In procuring technology, AHC will comply with and respond to accessibility needs.

Surveys

A variety of surveys are conducted regularly at AHC to solicit feedback on technology. These include student and staff satisfaction and engagement surveys that include questions on technology. Responding to this type of feedback will continue to drive many technology initiatives on campus. An example of one initiative is a laptop loaner program for faculty that operates through the campus libraries. This was in direct response to requests for such a program, particularly by part-time faculty. A tablet device loan program was put in place in 2013 for faculty to learn and experiment with this new technology.

As the College launched a revamped website, input was sought first from staff and faculty, then from students. The Web Services Committee will continue to discuss requests and input from all constituencies.

Smart Classrooms

To create consistency and ease of use for instructors, the College has moved to standardized classroom technology as much as possible (some disciplines, such as nursing, will continue to have unique needs). In response to faculty input, all classrooms will have similar smart podiums featuring the same controllers and interfaces. This allows instructors to move around the campus with confidence in their ability to operate instructional technology. If there are problems, support staff can monitor systems remotely from mobile devices and override errors. There is an ongoing plan to install smart technology in all traditional classrooms. The 2014-2024 Facilities Master Plan includes the direction that all new construction, renovation, and site improvements comply with the district's Audio Visual Systems Standard.

Wireless Network

AHC is a wireless environment at all campuses. Trends for transitioning to mobile devices for both students and instructors has already necessitated some wireless upgrades, and may continue to do so in the future. The use of the wireless network continues to increase. For example, on February 16, 2011, there were 1,100 unique wireless users that generated about 47 gigs of traffic. On May 12, 2014, there were 2,500 unique wireless users that generated about 154 gigs of traffic. The 2014-2024 Facilities Master Plan includes the direction that all new construction, renovation, and site improvements include a wireless networking plan.

Accessibility

The College is prepared to respond to any needs for accessibility in technology. Media can be captioned, paper texts can be converted to e-texts, and a suite of software is available for visually or hearing impaired students.

Goal 10 – Academic freedom:

Ensure that the implementation of technology is consistent with the goals of academic freedom.

• Select technologies that maximize quick, open access to the Internet while at the same time maintaining system security.

Academic Freedom

Academic Freedom at Allan Hancock College is fully described in Board Policy (BP) 4030. In short, it is described in the BP as "...fundamental for the protection of the rights of the teacher in teaching and of the student in learning." As stated in BP 4030, controversial and unpopular views must not be subject to censorship when they are essential to the subject being taught.

At times, there may be apparent conflict between academic research and technology safeguards, such as filters. For example, certain valid research topics such as pornography or violence in media may initially be blocked by filters or other technology safeguards due to security concerns. When such situations arise, they will be quickly resolved to maximize academic freedom whenever possible, under the supervision of the Director, IT Services.

To safeguard data that needs to be protected and to allow for a more open environment for faculty, students, and guest, the network has been segregated into virtual LANs. Sensitive data is stored on systems in the data center where they are physically secured. Only district equipment and users with the need to know are allowed direct access to the administrative systems. This silo approach has enabled the security measures to be less restrictive for instructors, classrooms, and students.

Goal 11 – Maximize flexibility:

Maximize individual flexibility and choice regarding when, where and how instructional activities and support services can be accessed and used effectively.

- The College will work to expand online student services.
- AHC will continue to maintain and support an online learning environment.
- Mobile devices will be supported, and mobile applications will be developed to maximize access and flexibility.



Technology at AHC touches all areas of instructional and support services and will continue to move in the direction of 24/7 access. The following is a partial list of recent and forthcoming programs moving online to increase efficiency and access:

- <u>DegreeWorks</u>: In March 2014, DegreeWorks launched for students through the myHancock portal. This program provides a clear and concise method for students and advisors to track degree progress. It re-organizes a student's transcript both chronologically and categorically, easily identifying courses competed and still needed in order to fulfill degree requirements.
- <u>SARS-GRID</u>: This is an intuitive scheduling system for staff and students to make and keep track of counseling appointments. The many helpful features of the system include avoidance of double-booked appointments, reminders that can be emailed or printed, and the ability for counselors to share notes on a student. It also can integrate with a counselor's Outlook calendar.

- Online Parking Permits: To facilitate a timely and more convenient way of obtaining a parking permit, AHC has partnered with an outside vendor to provide web-based purchase and management of perking permits. Students can purchase their permit as soon as web registration begins for a new term. This program was launched in 2011 for students.
- Online Student Funds Disbursement: AHC partnered with a refund management company focusing solely on higher education. This provides disbursement of financial aid, scholarships, and refunds through use of an AHC Bulldog Debit Card/MasterCard received by students through the mail. Launched in January of 2012, students can select one of three refund preferences. The card may be used for debit free of charge at the campus ATMs or to make purchases anywhere MasterCard is accepted.

The trend towards increased use of mobile devices by both staff and students to set their schedules and access personal information will drive the continuing transition to online services in the foreseeable future. In the September 2012 myHancock survey, almost 20% of the students responded that they use a cell or tablet to access myHancock. The response to the same question in the January 2012 survey was just 12%. As demonstrated in the October 31, 2013 technology survey, the use of smartphones by employees for AHC business is very significant. About 52% of the employees responding to the survey use a smartphone often or always. The Administration group used their smart phones the most at about 85% with the full-time faculty at about 63%. The part-time faculty used theirs the least at about 32% which was surprising since they are not given an individual district computer.

Goal 12 - Sustainability plan:

Formalize a sustainability plan for technology that includes infrastructure, annual replacement needs, and ongoing costs; and minimizes the district's cost when bond funding ceases.

- Whenever possible, the College will utilize green practices for recycling and re-purposing technology equipment.
- AHC will maintain technology replacement timelines.
- Total cost of ownership (TCO) will be evaluated as part of technology purchasing decisions including custom setup/programming.
- The College will work with the AHC foundation and other programs to develop donation opportunities such as technology endowments.
- AHC will investigate government and other programs which allow schools to obtain excess or surplus technology at little or no cost.

Recycling/Repurposing

AHC re-purposes and recycles technology equipment as much as possible. Older computers that are still functional are often "passed down" to users with minimal needs, such as student checkin computers in labs. Useable parts of nonfunctional equipment are used by technicians for maintenance and repairs. Grant equipment that is no longer needed after the end of the grant period may become part of a laptop or tablet lending program. Other public schools within the AHC District may receive computers that no longer meet AHC needs.

Replacement

The College is currently working on a comprehensive obsolescence plan. Faculty and staff can check the computer standards on the myHancock portal for minimum standards. In the October 2013 Technology survey, financing the replacement of aging hardware/software was viewed as essential or very important by 100% of the responders.

Total Cost of Ownership (TCO)

The initial cost of technology is only a portion of total cost of ownership. All of the following factors should be included:

- Hardware and software costs
- System and network technical support
- Expert/consultants
- Integration development
- Helpdesk support
- Testing activities

- User documentation development
- Training of users
- Project Management
- Infrastructure support needs/costs

Grants and Donations

The College is always actively seeking grant and donation opportunities to support technology. Federal grants in particular such as Title V and STEM have contributed significantly to projects such as student computer labs.

Excess Equipment

VAFB has a program which enables the District to obtain their excess surplus items for little or no cost. This has proved to be very beneficial for some departments such as plant services. This program has also given AHC access to printer cartridges for no cost. This program has minimal impact for most ongoing technology innovative needs. 101, 141, 142 501, 521 337, 571, 572, 573

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Appendix A – Technology Council Members

Members of the Technology Council		
2013-2014	2012-2013	
Co-chairs:	Co-chairs:	
Carol Van Name	Carol Van Name	
Alberto Restrepo	Alberto Restrepo	
Note taker:	Note taker:	
Melinda Martinez	Melinda Martinez	
Management:	Management:	
Will Bruce	Will Bruce	
Supervisory/Confidential:	Supervisory/Confidential:	
Melinda Martinez	Linda Shelby	
Faculty Association:	Faculty Association:	
Kate Adams	Jennifer Jozwiak	
PFA:	PFA:	
Danielle Blanchard	George Torbert	
CSEA:	CSEA:	
Mark Mintz	Mark Mintz	
ASBG:	ASBG:	
Albert Jackson	Corina Olivera	
Other Contributors:		
Nancy Meddings		
David Brown		
Fred Patrick		
Camerron Barlow		

Appendix B

Appendix B – Revision History

The current Technology Master Plan was developed by the Technology Council with contributions by technology council members and other employees knowledgeable about the topics. The plan is organized around 12 planning goals. The goals were reviewed with the Academic Senate and other constituent groups in spring 2012 and modified based upon the review comments.

The Technology Master Plan will be reviewed regularly by the Technology Council and updated as needed. The updates will be based upon input from the Planning Retreat, technology needs identified in program reviews, and technology advances and trends.

Date	Event
November 14, 2012	First draft approved by Technology Council
October 31, 2013	Technology survey conducted with all employees
March 27, 2014	Overview of Technology Plan presented to open forum of
	employees in Santa Maria
May 1, 2014	Overview of Technology Plan presented to open forum of
	employees in Santa Maria and Lompoc
May 19, 2014	Draft presented to College Council to receive input; endorsed by
	College Council
June 17, 2014	Technology Master Plan presented as an information item to
	Board of Trustees
Future	
July 22, 2014	Technology Master Plan presented as an action item to Board of
	Trustees for approval
Spring 2015	First update

Appendix C

Appendix C – Technology Initiatives

This section of the plan identifies ongoing technology initiates at AHC. These initiatives are in various phases of implementation ranging from initial discussions to nearing completion. The inclusion of a project on this list does not guarantee that it will be implemented. Conversely, a technology initiative does not need to be on this list to be implemented. Various factors such as funding, prioritization, and need will influence AHC's committed to a project. The list is provided in this plan for insight to the initiatives at the time the plan is published. This list will be updated when the plan is updated.

Funding Initiative

This initiative is to continue to develop a strategy and mechanism to address the issues of continued funding for technology at AHC after Measure I concludes.

Goal 12: Sustainability plan

Benefits:

An appropriate technology funding model includes identifying a sustainable funding stream to:



- Maintain and enhance missions-critical systems and services
- Provide continuous maintenance and periodic upgrades of technology enhanced classrooms, offices, and meeting areas
- Maintain and improve the wired and wireless network to meet bandwidth needs
- Meet the student success act requirements and opportunities
- Provide technology professional development opportunities
- Provide opportunities for technology innovation
- Address issues of inequities and under-funding

Proposed Leadership:

- Administrative Services Department co-lead
- Information Technology Services co-lead
- Budget Council
- Technology Council
- AHC Foundation
- Institutional Grants office

Metrics:

- New funding sources identified
- Average age of existing technology

Estimated Cost/Potential Funding Sources:

- Participants' time and support to develop approach, guidelines, and implementation plan.
- Implementation of funding models and associated costs should be considered separately.

Recent Actions:

- Starting with fiscal year 2010/2011, a 5-year outlook of the funds needed to sustain mission critical systems and services has been maintained. The Budget Council has incorporated this outlook into the annual budget assumptions for district funding.
- 2) In September 2013, the Technology Advisory Committee (TAC) which oversees the Measure I Technology Modernization funds agreed to reduce the annual expenditures by 1/3 (\$1,180,000 to \$820,000) starting in 2013-14 to extend the availability of this funding source by one year until June 2017.
- 3) In April 2013, a meeting was held with the AHC Foundation director, the interim President, and the Information Technology Service director to discuss the need for a major fundraising plan and the goal to establish an annuity fund for technology replacements. The AHC Foundation director stated that the AHCF board was conceptually in agreement with this need.
- 4) AHC participates in licensing programs through the Foundation for California Community Colleges (FCCC) consortium for Adobe and Microsoft site licenses at a significant discount.
- 5) Since 2010, standard quotes for computers, printers, and scanners have been published in the portal to limit the range of systems and applications needed to be supported and to obtain a better price.
- 6) Over the past few years, adaptive software has been purchased on a site basis to enable flexible deployment. This has resulted in cost savings and better service to the students who can benefit from these programs.
- 7) Since 2008, when supported by the vendor, server virtualization is used to reduce the expense of purchasing a separate hardware server for each application.

AHC Technology Master Plan 2014-2020



Student Mobile App Initiative

This initiative is to develop a mobile app enabling students to access pertinent college information from their mobile device (smart phone, tablet, etc.). This mobile app will be released to the Apple Store and the Google Store for a free download.



Goal 9: Needs of students, faculty, and staff

Benefits:

- To provide mobile access to students for:
 - Class / College Notifications
 - o Grades
 - o Class Schedule
 - o College News
 - o College Events
 - Staff Directory
 - Campus Maps / Directions

Proposed Leadership:

- Information Technology Services department Lead
- Web Services Committee
- Banner Steering Committee

Metrics:

• Google Analytics will provide usage over time statistics

Estimated Cost/Potential Funding Sources:

- IT Services web developer time.
- Under the Grant Program for Ellucian Mobile, AHC was able to secure the mobile development environment for no fee (a savings of \$37,500). The annual maintenance of \$18,000 was included in the District technology budget starting in 2013/2014.

Recent Actions:

1) A pilot app was developed and reviewed by the Web Services Committee in spring 2014.

Classroom Tablets Initiative

Tablets have extraordinary potential as a learning tool that can fuel innovation. This initiative is to track the pilot programs and early adopters to capture the benefits and challenges of district tablets for instruction.

Goal 1: Innovative in a digital age

Benefits:

- Engages the student
- Anytime-anywhere learning options
- Heightens communication between instructor and students

Proposed Leadership:

- Academic Affairs Lead
- IT Services

Metrics:

• Student Learning Outcomes

Estimated Cost/Potential Funding Sources:

- Measure I Technology Modernization TAC funds
- Instructional equipment funds
- STEM and other grants

Recent Actions:

- 1) Seventeen iPads for the English department were purchased in January 2013 for a pilot program with TAC funds.
- Three iPads were purchased in October 2013 and an additional fifteen iPads were purchased in February 2014 with Rupe Grant funds for CNA students.
- 3) Ten iPads were purchased in January 2014 with STEM funds.
- 4) Nine iPads were purchase for the new Public Safety classrooms in April 2014 with TAC funds.

Online Scholarship Initiative

This initiative is to implement the Academic Works online Scholarship program.

Goal 7: Compatibility and integration

Goal 11: Maximize flexibility

Benefits:

- Provides a central point to apply for all scholarships offered through AHC Foundation
- Allows students to view scholarships and manage their application online
- Provides donors and the general public the opportunity to view scholarships
- Provides the campus scholarship committee online access to view and rank applications and make recommendations for awards

Proposed Leadership:

- AHC Foundation Office Lead
- Financial Aid department
- Information Technology Services department
- Banner Steering Committee

Metrics:

- Number of scholarship applications
- Timeline needed for the annual scholarship process

Estimated Cost/Potential Funding Sources:

- Participants' time and support to develop approach, guidelines, and implementation plan.
- Financial Aid staff time to define application and rules and test when implemented.
- Measure I modernization funds of \$13,000 were used to purchase the Academic Works product in May 2014. AHC Foundation funds will be used to fund ongoing maintenance support.

Recent Actions:

- 1) April 23, 2014 the agreement was signed.
- 2) June 2, 2014 the kickoff meeting was held.
Microsoft Office 365 Initiative

This initiative is to investigate the feasibility of a hybrid email deployment environment. Microsoft Office 365 enables mailboxes to be located in the cloud.

Goal 6: Communication and civic engagement

Benefits:

- Larger mailbox sizes without associated hardware expense
- Improved scanning for viruses and SPAM
- Access to Office Web Apps such as Outlook, Word, Excel, PowerPoint, and OneNote
- Potential reduced downtime due to scheduled maintenance

Proposed Leadership:

- Information Technology Services department Lead
- Technology Council

Metrics:

- Connectivity reliability
- Access time

Estimated Cost/Potential Funding Sources:

- IT Services staff time to investigate, implement, test, deploy, and support.
- A limited number of Office 365 licenses are included in the District funded Microsoft agreement

Recent Actions:

1) As of June 2014, a test environment is currently under development

Disaster Recovery Initiative

This initiative is to implement an online data backup system at the LVC. While a redundant data center at a remote location would ensure business continuity, the ongoing cost to maintain or contract for such a center is not likely to be supported by the existing District budget. The most important and unique part of the technology at AHC is our data. The current system of daily backup to disk and then tape with twice a year off site storage to the LVC can be improved. Technology improvements and recent cost reductions in disk to disk backups to remote locations now make this possible for AHC.

Goal 2: Reliable and secure

Benefits:

- Up to date backup data available at offsite location
- More data can be backed up because not limited by the capacity of a tape system
- Data more secure because in two locations

Proposed Leadership:

- Information Technology Services department Lead
- Technology Council

Metrics:

- Amount of data being backed up
- Near real-time data in backup copy

Estimated Cost/Potential Funding Sources:

- IT Services staff time to investigate, implement, test, deploy, and support.
- Measure I modernization funds

Recent Actions:

1) Initial hardware switches for data storage purchased in May 2014.

Online HR Services Initiative

This initiative is to implement new HR modules as part of the upgrade to ONESolution.

Employee Online (EO) - Web interface allowing employees to access/modify some of their personnel information. Employees will be able to view their name and current annual leave/sick balances. They will be able to update their address and phone number.

Applicant Online (AO) - Web interface for job applicants. Applicants will be able to create a profile, review open positions, and apply for a position. If hired, the applicant data is written to the HR employee database. The online applications are custom developed to meet the specifications defined by AHC.

Professional Development (PD) – Web interface to create and manage staff education programs. Enables instructors to create and manage courses, generate rosters, and email notification to all registered employees. Enables employees to view course offerings and schedules, register/drop courses, add name to waitlist, view classes attended, and print professional development certificates.

Goal 7: Compatibility and integration

Benefits:

- Provides online access for an employee to view some of their personnel information and their current annual leave and sick information
- Improves the application process
- Delivers a more robust Professional Development system

Proposed Leadership:

- Human Resources Department Lead
- ONESolution Steering Committee
- Professional Development Committee
- Information Technology Services department

Metrics:

- Reduced number of requests to HR for leave information
- More accurate address and phone information in HR system
- Improved application process for prospective new employees

Estimated Cost/Potential Funding Sources:

• Human Resources staff time to test the new modules and modify existing procedures as needed.

- Human Resources and IT Services staff time to define custom online applications and test when delivered.
- Measure I modernization funds were used to purchase the new ONESolution HR modules for \$15,700 and the AO custom development for \$25,600.

Recent Actions:

- 1) February 28, 2013 SunGard Public Sector Agreement was signed for the ONESolution upgrade and additional HR modules.
- 2) May 21, 2014 AO custom specification approved.
- 3) June 9, 2014 ONESolution Finance went live.

Online Orientation Initiative

This initiative is to develop an online orientation for new students. The vendor Cynosure has been selected to do the videotaping and develop the orientation web site pages. This initiative is part of the first phase of the Student Success & Support Program.

The project will be developed in the following phases:

- Design and storyboarding
- Video production
- Graphic production
- Programming
- Quality control, test, review, and approval

Goal 8: Distance learning and online student success

Benefits:

- Better prepare student for success at AHC
- Access available 24/7 from any computer location

Proposed Leadership:

- Student Services lead
- Public Affairs department
- Web Services Committee

Metrics:

- Number of students viewing the orientation
- Better prepared first year students

Estimated Cost/Potential Funding Sources:

- Student Services staff and counselor's time to fill out scripts for videotaping
- Student Services staff and counselor's time to review, test, and approve the deliverables
- IT Services staff time to develop SSO in myHancock and host the delivered web pages
- Student Success Act funding and matching district funding for services and orientation deliverable for a total of \$55,575.

Recent Actions:

- 1) April 16, 2014 a kickoff meeting with the vendor was held.
- 2) May 2014 Cynosure was selected for online orientation.

Document Management System (DMS) Initiative

This initiative is to develop a plan for a college-wide electronic document management system. There is a need to securely store and retrieve documents electronically.

Although the Banner and ONESolution ERP systems have their own document imaging system, there is a no central repository for district documents. Users' computer local file system and department file shares are currently used to store documents, but these are not easily searchable and have limited disk space.

The selected system will need to support BP 3310, Retention and Destruction of Records.

Goal 9: Needs of students, faculty, and staff

Benefits:

- Reduce rental costs at the CBC warehouse
- Provide online, easy access to critical information

Proposed Leadership:

- IT Services department Lead
- Administrative Services department
- Plant Services department

Metrics:

- Reduced square footage of storage area for paper files
- Reduced time to access electronic documents

Estimated Cost/Potential Funding Sources:

- Participants' time and support to develop approach, guidelines, and implementation plan.
- Measure I modernization funds for selected product.

Recent Actions:

1) A kickoff of this project has not yet occurred.



Banner XE Initiative

This initiative is to plan for the upgrade of Banner 8 to Ellucian Extensible Ecosystem (XE) solutions. Part of this planning effort will include the upgrade plan for Luminis 4 (myHancock portal). Ellucian announced in March 2014 that Luminis 4 will be de-supported on December 21, 2015. Ellucian Mobile is one of first XE solutions and is in the process of being implemented at AHC.

Ellucian XE is a new, fresh architectural approach that the company hopes will accelerate application of new technologies.

Goal 7: Compatibility and integration

Benefits:

- More user friendly interface
- Better suited for mobile applications
- More modern interface
- Provides a robust API and web services strategy for interoperability with new and existing software solutions
- An agile development for more quickly evolving core solutions

Proposed Leadership:

- Information Technology Services department Lead
- Banner Steering Committee

Metrics:

• AHC roadmap for Banner and Luminis

Estimated Cost/Potential Funding Sources:

- Participants' time and support to develop approach, guidelines, and implementation plan.
- License and maintenance costs associated with the upgrade to Ellucian XE products is unknown at this time

Recent Actions:

1) April 2014 Ellucian Live conference attended by IT Services Banner programmer.

Mobile Device Management (MDM) Initiative

This initiative is to determine what type of management is needed for the influx of consumeroriented mobile devices and District supply tablets.

This initiative will address:

Device provisioning and setup:

- Set up device
- Install content like apps
- Security certificates
- User accounts
- Network access

Remote Wipe guidelines:

- For college owned devices
- For employee owned devices

Security Policies

• Device locking – password, password age, and auto-locking

Dealing with lost or stolen devices

Goal 2: Reliable and secure

Benefits:

• A consistent approach to managing mobile devices

Proposed Leadership:

- Information Technology Services department Lead
- Technology Council

Metrics:

• An updated written procedure for mobile devices

Estimated Cost/Potential Funding Sources:

Participants' time and support to develop approach, guidelines, and implementation plan.

License and maintenance costs associated with any purchased MDM products.

Recent Actions:

1) This initiative has not yet started

Appendix D

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Appendix D – California Community Colleges Chancellor's Office Technology, Research and Information Systems Division Initiatives

The following state technology initiatives should be watched and monitored for future technology opportunities at AHC.

CENIC CalREN Network

AHC received a 1 Gigabit connection from the college's data center to the CalREN network in 2011. The existing slower, connection was retained as a redundant circuit. A request has been submitted to CENIC to add the Lompoc Valley Center directly to the CalREN network. Currently there is a 1 Gigabit fiber circuit between the LVC and the Santa Maria Campus and a 10 Mbit circuit between the Solvang Center and the Santa Maria Data Center. The timeframe for a direct connection for the LVC is dependent upon available funding and priorities at the system's office.

On the Santa Maria campus and the Lompoc Valley Center (LVC) inter-building connections are 1 Gigabit Ethernet, over optical fiber. Desktop computers are connected via 10/100 MB or 1 Gigabit Ethernet depending upon the edge switch and the desktop network card. The Network infrastructure has gradually been upgrading to the Gigabit level as new buildings and replaced computers come online. The 2014-2024 Facilities Master Plan includes the direction that all new construction, renovation, and site improvements comply with the data networking infrastructure design to support Gigabit level. CSU's and K-12 county education offices have begun to receive 10-Gigabit connections from CENIC. Future plans may bring higher speed internet connections to AHC. This will require a major investment in new network infrastructure.

MIS Data

There has been an increase in the data that is expected to be gathered, stored, and reported. The California Community Colleges Chancellor's Office requirements change more rapidly than the ERP systems can respond. As a result, the burden is on the IT staff at the districts to develop stop gap approaches to comply with the new data requirements. These data are used to fulfill reporting requirements that are directly related to legislation and funding. Today these data are used for the Chancellor's Office Data Mart, Student Right-to-Know (STRK); the federal Integrated Postsecondary Education Data System (IPEDS); the Accountability Report for Community Colleges (ARCC); and most recently the newly mandated Student Success and Support Program (SSSP or 3SP).

MIS data is also being used to support new state and federal reporting requirements for AB 86, CTEA report/metrics, LaunchBoard, SSSP, student equity plan, SB 70, and gainful employment.

This is placing an additional burden on Institutional Research and Planning staff to implement new tools to query and report required data.

OpenCCCApply

OpenCCCApply is the new Web 2.0 application for California colleges. It provides a system-wide student account through a common admissions application process. This account can be used to access system-wide/cloud applications. This program should be investigated for use by AHC.

Student Success Initiative

In September 2012 Governor Brown Signed the Student Success Act of 2012 into Law. The new law will help student's complete educational goals. A Student Success Task Force was formed and recommended 22 specific policy changes to improve educational achievement in the California Community Colleges. Of the 22 Task Force recommendations, nine have been identified for the initial implementation phase.

The Student Success & Support Program (SSSP or 3SP) (formerly Matriculation) from the Chancellor's Office provides the coordination and leadership to the community colleges for this initiative. The initial phase requires mostly human capital for data collection. The ongoing funding that will be available after the first two years will be determined by the data collected to establish the baseline.

The act does include funding which can be used for technology purchases during this first phase. The district needs to match the funding at a 3:1 ratio the first year and a 2:1 ratio the second year.

The online orientation product Cynosure was selected in May 2014 to be purchased with these funds. An upgrade to the DegreeWorks program for student education plans and an early alert progress reporting system called Grades First are other candidates for these funds.

Also part of 3SP is an Online Education Initiative which is being spearheaded by the DeAnza-Foothill district to develop a statewide Distance Learning platform. This is in the early stages and will be followed as an alternative to the current Blackboard Couse Management System.

Another is the Common Assessment Initiative which is being spearheaded by the DeAnza-Foothill district. This is also will be tracked as it matures.

Appendix E

STUDENT SERVICES,

Appendix E – Technology Trends

The following technology trends should be watched and monitored for future innovation and improvement opportunities at AHC.

10Gbit Wired Networks and 1Gbit Wireless Networks

The expansion of distance learning as well as the adoption of mobile devices, online assessments, and digital content has increased the demand for constant and consistent Internet connectivity at the Santa Maria Campus and the LVC. There will be a need in the future for significant infrastructure upgrades and investments to handle 10Gbit wired networks which are not supported by our current core and edge switches. Currently the speed of the AHC wireless network is a maximum of 100MG. To increase the speed of the wireless network will take three changes: a software upgrade to the wireless switch, adapters to the wireless access point to handle the new 802.11AC protocol, and network adapters in mobile devices to use the new AC protocol.

Bring-Your-Own-Device (BYOD)

Consumer technology and cloud-based services are used by students and employees at AHC. A separate wireless BYOD network was established in October 2012 for employees to access the online services they need from their smartphone. The amount of time students can stay connect to the AHC Public wireless network was increased to one hour based upon student requests. The ability to use one's own device has opened up a new path for instructional innovation. A common theme of the March 27, 2014 Open Forum was the need for more complete wireless access at all District locations.

The trend to incorporate personal devices has also brought with it concerns for malware infections, compliance violations such as FERPA and HIPAA, and unauthorized access to sensitive data.

The district firewall blocks the following categories of websites, but personal devices are not protected when they are off campus.

- abused-drugs
- adult-and-pornography
- bot-nets
- confirmed-spam-sources
- keyloggers-and-monitoring
- malware-sites
- open-http-proxies

- pay-to-surf
- peer-to-peer
- phishing-and-other-frauds
- proxy-avoidance-and-anonymizers
- spam-urls
- spyware-and-adware
- unconfirmed-spam-sources

Cloud Based computing

Cloud computing is a general term for anything that involves delivering hosted services over the Internet.

Advantages of moving to the cloud:

- Increased efficiency
- Improved employee mobility
- Increase ability to innovate
- Freed current IT staff for other projects
- Reduce IT operating costs
- Increased ability to offer new products/services

The cloud based computing model depends on the network inside and outside our firewall. If large amount of data need to travel to the cloud or from the cloud, the bandwidth of the network will need to be increased.

Cloud computing also implies a level of trust in both the reliability and the security of the services. Service Level Agreements (SLA) with high availability in the 99% plus range and security provisions should be in place before moving any critical and/or sensitive data to the cloud.

The new online scholarship program will also be cloud-based using Amazon Web Services. The use of the cloud for ERP systems, storage of sensitive data, and high-performance computing is not on the immediate horizon.

Increased Cloud computing along with server virtualization may reduce the need to expand the data center in the near future.

Customer Relationship Management (CRM)

AHC purchased the Banner Relationship Management module along with the other Banner modules in August 2008. This module is no longer being sold and the functionality is being

migrated to Banner Communication Manager as part of Banner XE. Retaining the Banner Relationship Manager license will enable us to use the new Banner Communication Manager when we upgrade to Banner XE.

Banner Communication Manager will provide the following:

- Manage communication with students
- Support campus-wide student success and retention efforts
- Provide automated, personalized, timely, relevant communication to students
- Identify at-risk and excelling students early

Digital Content

Digital Content can provide a 21st learning environment. This includes video and audio; instructional games and simulations; Web 2.0 features such as collaboration and quiz tools; and publisher digital assets. The rise in mobile device ownership allows students to easily access the Internet and digital content. There are challenges such as lack of funding, lack of expertise, and resistance to change that will need to be overcome before this is a significant technology need at AHC.

Identity/Access Management

The goal is to integrate the systems of identification, authentication, and authorization. It is important to identify a person, verify that identity, and determine what they are authorized to access.

AHC requires users to authenticate themselves with a username and password. They gain access to perform certain actions and have access to particular data within systems based upon this authentication. Banner is used as the identity management system for students while Microsoft Active Directory Services is used for employees.

The recent creation of an online secure password reset program for students has reduced the emails from students requesting login assistance from about 50 a day to less than 5 a day. Process improvements and software changes made in managing employee user accounts have transformed a paper request process to an online secure workflow program.

The goal is to access all key systems with single sign on (SSO) through the myHancock portal. While SSO simplifies access, it is also a single point of failure. AHC uses password policies to manage password rules such as expiration and complexity. In the technology world, passwords have been supplemented by security questions, PINs, images, fobs with dynamic codes, and now biometrics such as a fingerprint. Passwords will remain the primary authentication method at AHC for now, but this will change in the future as more sensitive data is brought online and accessible over the Internet and better identification methods become cost effective.

Learning Management Systems (LMS)

The Learning Management System has evolved to become a mission critical enterprise system. It is now a fundamental teaching and learning resource.

The Blackboard LMS used at AHC has enjoyed a long position at the top of the LMS market. This product has been a logical choice for AHC with its integration to Banner and optional hosting services. The high cost and traditional interface of the product are reasons to keep our options open and watch newer products such as Moodle and Desire2Learn as they continue to mature.

Open Source

Open source software is difficult to implement in an academic environment. The AHC IT Services limited staff needs strong vendor support. The term open is a continuum along which various systems can be positioned. Open API's are important in a hybrid environment such as ours with two ERP systems.

Appendix F

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Appendix F - Definitions

API – Application Program Interface – a set of documented commands, functions, and protocols that make it possible for application programs to interact with each other and share data.

BYOD – Bring Your Own Device – The practice of allowing employees to use their own personal laptop, smartphone, tablet, or other devices for work purposes.

CalREN - **California Research and Education Network** is a multitiered, advanced networkservices fabric serving the vast majority of research and education institutions in the state of California. CENIC designs, implements, and operates **CalREN**.

CENIC - **The Corporation for Education Network Initiatives in California**. California's education and research communities leverage their networking resources under CENIC in order to obtain cost-effective, high-bandwidth networking to support their missions and respond to the needs of their faculty, staff, and students.

Cloud computing – A general term for anything that involves delivering hosted services over the Internet. These services can be Infrastructure-as-a-Service (such as Amazon Web Services), Platform-as-a-Service (such as GoogleApps) and Software-as-a-Services (SaaS). The difference from traditional hosted services is that it is sold on demand and is elastic – can have as little or as much service at any given time.

Digital Fluency – ability to interpret information, discover meaning, design content, construct knowledge, and communicate ideas in a digitally connected world.

Document Camera – Instantly displays images of any object and can transform them into digital content.

Document Management System (DMS) – a computer program used to track and store electronic documents.

ERP – **Enterprise Resource Planning** is the term used for business management software that is usually made up of a suite of integrated applications accessing a common database to collect, store, and interpret data from the business activities.

FERPA – Family Education Rights and Privacy Act of 1974 – a federal legislation in the US that protects the privacy of student's personally identifiable information.

HIPAA – Health Insurance Portability and Accountability Act of 1996 – a federal law designed to provide privacy standards to protect patients' medical records and other health information.

Hosted services – Technology services by a provider that hosts the physical servers running the services somewhere else. Access to the service is provided through a direct connection that may or may not be via the Internet.

Information Technology (IT) - refers to anything related to computing technology, such as networking, hardware, software, the Internet, or the people that work with these technologies. Also associated with the processing and distribution of data.

LMS - **Learning Management System** is a software application for the administration, documentation, tracking, reporting, and delivery of e-learning education courses or training programs. An example is Blackboard.

Response units – Hand held device that allows instructors to obtain quick insight into learning and track student performance

Single sign on – (SSO) – is an authentication process that allows a user to access multiple applications with one set of login credentials.

Smart Board – An interactive whiteboard and display that helps instructors make learning a hands-on, visual experience for students.

Smart Podium – A podium to connects to a computer and projector and lets you display visuals, access websites, and applications.

Software as a Service (SaaS) – Software deployed as a hosted service and accessed over the Internet.

TAC – Technology Advisory Committee – a standing committee that is responsible among other things to make recommendations for Measure I technology modernization requests and update the computer obsolescence guideline.

Web 2.0 – is a second generation of the World Wide Web that focuses on the ability for people to collaborate and share information online. This marks the transition from static HTMP pages to a more dynamic Web that serves Web applications to users.

Web Services Committee – a standing committee that is responsible for overseeing the Hancock website, portal, online communication standards, and content management.



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Appendix G – Fall 2013 Technology Survey

Data Request General () No. of responses = 132 For the Period: Survey Results 1. Choose your classification n=126 Administrator 9.5% Classified staff 41.3% Full-time faculty 28.6% Part-time faculty 16.7% Supervisor/Confidential 3.2% Other (write in) 0.8% 2. I use the following devices for work (check each item): 7.9% 6.3% 14.3% 71.4% District PC n=126 Never Always av.=3.49 md=4 dev.=0.93 2 3 4 14.2% 46.9% 35.4% 3.5% n=113 av.=1.74 md=2 dev.=0.83 District PC laptop Never Always 2 3 4 76.5% 8.7% 4.3% 10.4% **District Apple Macintosh** n=115 av.=1.49 md=1 Always Never dev.=0.99 2 3 4 87.5% 6.3% 0.9% 5.4% **District Apple Laptop** n=112 Never Always av.=1.24 md=1 dev.=0.73 2 3 4 1 61% 17.8% 11.9% 9.3% District tablet (iPad or Surface) n=118 Never Always av.=1.69 md=1 dev.=1.01 4 2 3 1 49.1% 16.1% 14.3% 20.5% Personal PC n=112 av.=2.06 md=2 Never Always dev.=1.21 2 3 4 1 16.1% 56.3% 16.1% 11.6% Personal PC laptop n=112 av.=1.83 Never Always md=1 dev.=1.08 2 3 4

Personal Apple Macintosh	Never		Always	n=112 av.=1.48 md=1 dev.=1
Personal Apple Laptop	Never	82.5% 5.3% 4.4% 7.9% 1 2 3 4	Always	n=114 av.=1.38 md=1 dev.=0.9
Personal Tablet	Never	66.7% 11.7% 8.1% 13.5% 1 2 3 4	Always	n=111 av.=1.68 md=1 dev.=1.1
Smartphone	Never	32.5% 15.8% 19.2% 32.5%	Always	n=120 av.=2.52 md=3 dev.=1.25
3. In the work you do, do you consider Hancock's policies a	nd/or auidelines	aovernina the followina:		
AHC e-mail accounts	Not aware	5.4% 0.8% 27.7% 66.2% 1 2 3 4	Always	n=130 av.=3.55 md=4 dev.=0.77
duplication of copyrighted software/ software piracy?	Not aware	10.9% 5.4% 12.4% 71.3% 1 2 3 4	Always	n=129 av.=3.44 md=4 dev.=1.01
fair use of copyrighted content (books, articles, etc.)?	Not aware	10.2% 4.7% 17.2% 68% 1 2 3 4	Always	n=128 av.=3.43 md=4 dev.=0.98
downloading commercial music/videos from the Web?	Not aware	15.1% 11.9% 19.8% 53.2% 1 2 3 4	Always	n=126 av.=3.11 md=4 dev.=1.12
use of social networking sites (Facebook, Twitter, etc.)	Not aware	22.7% 12.5% 20.3% 44.5% 1 2 3 4	Always	n=128 av.=2.87 md=3 dev.=1.21
academic freedom	Not aware		Always	n=128 av.=2.91 md=3 dev.=1.26
4. Which of the following technologies do students need to	function effective	ely at AHC?		
computers/laptops	Not needed	1.6% 2.3% 14.7% 81.4% 1 2 3 4	Essential	n=129 av.=3.76 md=4 dev.=0.57
tablets	Not needed	27.9% 35.2% 25.4% 11.5%	Essential	n=122 av.=2.2 md=2 dev.=0.98



5. As you think about institutional priorities for technology resources and services over the next six years, how do you rate the importance of the following issues?

Assisting faculty to integrate technology into instruction	Not needed	0%	19.1%	29%	51.9%	Essential	n=131 av.=3.33 md=4 dev.=0.78
Researching technology innovations for the classroom	Not needed	0.8%	19.7%	32.6%	47%	Essential	n=132 av.=3.26 md=3 dev.=0.8
Financing the replacement of aging hardware/ software	Not needed	0%	2.3%	14.4%	83.3%	Essential	n=132 av.=3.81 md=4 dev.=0.45
Hiring/ retaining qualified IT services and multimedia staff	Not needed	1.5%	3%	19.7%	75.8%	Essential	n=132 av.=3.7 md=4 dev.=0.6
Implementing/ supporting mobile computing	Not needed	3.8%	35.6%	29.5%	31.1%	Essential	n=132 av.=2.88 md=3 dev.=0.9
Providing adequate user support	Not needed	0%	9.1%	31.1%	59.8%	Essential	n=132 av.=3.51 md=4 dev.=0.66
Providing online/ distance education via the Web	Not needed	2.3%	32.1%	31.3%	34.4%	Essential	n=131 av.=2.98 md=3 dev.=0.87

Upgrading the campus network	Not needed	2.3% 16.8% 37.4% 43.5% 1 2 3 4	Essential	n=131 av.=3.22 md=3 dev.=0.81
Upgrading administrative/ ERP systems such as Banner and IFAS	Not needed	5.5% 21.9% 31.3% 41.4%	Essential	n=128 av.=3.09 md=3 dev.=0.92
Upgrading/ enhancing network and data sercurity	Not needed	2.3% 11.4% 35.6% 50.8%	Essential	n=132 av.=3.35 md=4 dev.=0.77
Providing training on existing applications such as Banner and myHancock	Not needed	2.3% 25.2% 39.7% 32.8%	Essential	n=131 av.=3.03 md=3 dev.=0.82
Expanding technology training for students	Not needed	0.8% 33.8% 36.9% 28.5%	Essential	n=130 av.=2.93 md=3 dev.=0.81
6. Are you satisfied with the current standard technology	you are provided at	AHC? (Check all that apply)		
Dell office computer	Not Satisfied	9.6% 29.8% 60.5%	Satisfied	n=114 av.=2.51 md=3 dev.=0.67 ab.=18
Dell student computer	Not Satisfied		Satisfied	n=50 av.=2.34 md=2.5 dev.=0.75 ab.=78
Apple office computer	Not Satisfied	7.4% 18.5% 74.1%	Satisfied	n=27 av.=2.67 md=3 dev.=0.62 ab.=98
Apple student computer	Not Satisfied	18.8% 18.8% 62.5% 1 2 3	Satisfied	n=16 av.=2.44 md=3 dev.=0.81 ab.=108
Cannon Copier	Not Satisfied	10.1% 34.2% 55.7% 1 2 3	Satisfied	n=79 av.=2.46 md=3 dev.=0.68 ab.=50
Hewlett Packard printer	Not Satisfied	12.1% 23.4% 64.5%	Satisfied	n=107 av.=2.52 md=3 dev.=0.71 ab.=22
Smart Podium	Not Satisfied	9.2% 38.5% 52.3%	Satisfied	n=65 av.=2.43 md=3 dev.=0.66 ab.=63

Epson data projector	Not Satisfied		Satisfied	n=62 av.=2.31 md=2 dev.=0.69 ab.=66
Turning Technologies iClicker	Not Satisfied	5.6% 55.6% 38.9%	Satisfied	n=18 av.=2.33 md=2 dev.=0.59 ab.=108
Apple iPad	Not Satisfied	8.6% 34.3% 57.1%	Satisfied	n=35 av.=2.49 md=3 dev.=0.66 ab.=90
Microsoft Surface	Not Satisfied		Satisfied	n=21 av.=2.29 md=2 dev.=0.72 ab.=102
ShoreTel phone	Not Satisfied	12.6% 29.1% 58.3% 1 2 3	Satisfied	n=103 av.=2.46 md=3 dev.=0.71 ab.=19
7. If you are an instructor who uses Blackboard, how satis	sfied are vou with th	e following features of this co	urse management s	svstem?
Features	Not Satisfied		Satisfied	n=42 av.=2.31 md=2 dev.=0.6 ab.=70
Reliability	Not Satisfied	9.3% 48.8% 41.9%	Satisfied	n=43 av.=2.33 md=2 dev.=0.64 ab.=69
Training	Not Satisfied	14% 32.6% 53.5% 1 2 3	Satisfied	n=43 av.=2.4 md=3 dev.=0.73 ab.=69
Look & Feel	Not Satisfied	14% 53.5% 32.6%	Satisfied	n=43 av.=2.19 md=2 dev.=0.66 ab.=68
Support	Not Satisfied	14.3% 38.1% 47.6% 1 2 3	Satisfied	n=42 av.=2.33 md=2 dev.=0.72 ab.=67
Performance	Not Satisfied	14.3% 57.1% 28.6% 1 2 3	Satisfied	n=42 av.=2.14 md=2 dev.=0.65 ab.=69
8. As an employee who uses myHancock, are you satisfie	ed with its			
Effectiveness	Not Satisfied		Very Satisfied	n=132 av.=2.73 md=3 dev.=0.9

Currency	Not Satisfied	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Very Satisfied	n=130 av.=2.63 md=3 dev.=0.87
User Friendliness	Not Satisfied	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Very Satisfied	n=131 av.=2.42 md=2 dev.=0.96
Organization	Not Satisfied	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Very Satisfied	n=131 av.=2.42 md=2 dev.=0.98
9 In your work how often do you use the following technol	ogy resources? (check each item)		
smart podium	Never	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Always	n=130 av.=2.09 md=2 dev.=1.12
tablet device (iPads, Nexus, Surface, etc.)	Never	53.1% 24.6% 13.1% 9.2%	Always	n=130 av.=1.78 md=1 dev.=1
smart phone	Never	50% 19.2% 11.5% 19.2% 1 2 3 4	Always	n=130 av.=2 md=1.5 dev.=1.18
computer-equipped classroom or lab	Never	38.5% 18.5% 13.1% 30% 1 2 3 4	Always	n=130 av.=2.35 md=2 dev.=1.27
computer simulation or exercise	Never	66.7% 17.1% 9.3% 7% 1 2 3 4	Always	n=129 av.=1.57 md=1 dev.=0.93
personal Web pages for class materials, work material, resources	Never	67.4% 14.7% 13.2% 4.7% 1 2 3 4	Always	n=129 av.=1.55 md=1 dev.=0.89
wikis / blogs	Never	73.4% 19.5% 5.5% 1.6%	Always	n=128 av.=1.35 md=1 dev.=0.66
online video resources such as YouTube	Never	34.4% 37.4% 22.9% 5.3% 1 2 3 4	Always	n=131 av.=1.99 md=2 dev.=0.89
commercial courseware/instructional resources such as Pearson's My Math Lab, Plato, ALEKS	Never	78% 11.8% 6.3% 3.9% 1 2 3 4	Always	n=127 av.=1.36 md=1 dev.=0.77

open education resources	Never	57% 28.9% 12.5% 1.6% 1.2% 1.6% 1.2% 1.6% 1.2% 1.6% 1.2% 1.6%	Always	n=128 av.=1.59 md=1 dev.=0.77
Blackboard plug-ins or building blocks	Never	85.3% 9.3% 3.9% 1.6% 1 2 3 4	Always	n=129 av.=1.22 md=1 dev.=0.59
"clickers"/classroom response system	Never	89% 8.7% 0.8% 1.6% 1 2 3 4	Always	n=127 av.=1.15 md=1 dev.=0.49
antiplagiarism software for written assignments such as Turn It In	Never	82.2% 7.8% 3.9% 6.2% 1 2 3 4	Always	n=129 av.=1.34 md=1 dev.=0.82
podcasting	Never	93.8% 6.2% 0% 0% 1 2 3 4	Always	n=129 av.=1.06 md=1 dev.=0.24
ebooks and electronic textbooks	Never	60.5% 28.7% 3.9% 7% 1 2 3 4	Always	n=129 av.=1.57 md=1 dev.=0.86
Webinar tools such as CCCConfer, Adobe Connect, GoToMyMeeting, SKYPE, Online tutoring (e.g. SmartThinking)	Never	50.4% 27.9% 16.3% 5.4%	Always	n=129 av.=1.77 md=1 dev.=0.91
Document Management System to track and store electronic documents such as Xtender	Never	82% 10.2% 5.5% 2.3% 1 2 3 4	Always	n=128 av.=1.28 md=1 dev.=0.68
MOOCS (Massive open online course)	Never	90.6% 8.7% 0.8% 0%	Always	n=127 av.=1.1 md=1 dev.=0.33
Cloud technology	Never	56.6% 17.8% 17.8% 7.8% 1 2 3 4	Always	n=129 av.=1.77 md=1 dev.=1
Online test proctoring	Never	90.6% 6.3% 2.4% 0.8%	Always	n=127 av.=1.13 md=1 dev.=0.46
Live broadcasting such as the AHC graduation and president search forum	Never	43.7% 34.1% 20.6% 1.6%	Always	n=126 av.=1.8 md=2 dev.=0.82

mobile APPs	Never	65.4% 18.1% 12.6% 3.9%	Always	n=127 av.=1.55 md=1 dev.=0.86
10. In your opinion, how important will the following items	be in our technolog	gy planning over the next 6	years?	
smart podium	Do not know		6 Very Important	n=130 av.=3.01 md=3 dev.=1.07
tablet device (iPads, Nexus, Surface, etc.)	Do not know	14.6% 5.4% 43.1% 36.9%	6 Very Important	n=130 av.=3.02 md=3 dev.=1.01
smart phone	Do not know		6 Very Important	n=130 av.=2.74 md=3 dev.=1.05
computer-equipped classroom or lab	Do not know		6 Very Important	n=130 av.=3.57 md=4 dev.=0.84
computer simulation or exercise	Do not know		6 Very Important	n=128 av.=2.61 md=3 dev.=1.15
personal Web pages for class materials, work material, resources	Do not know		6 Very Important	n=128 av.=2.48 md=3 dev.=1.05
wikis / blogs	Do not know		Very Important	n=128 av.=2 md=2 dev.=0.92
online video resources such as YouTube	Do not know		6Very Important	n=126 av.=2.75 md=3 dev.=1.09
commerical courseware/instructional resources such as Pearson's My Math Lab, Plato, ALEKS	Do not know		6Very Important	n=129 av.=2.15 md=2 dev.=1.15
open education resources	Do not know		6 Very Important	n=128 av.=2.37 md=2 dev.=1.14
Blackboard plug-ins or building blocks	Do not know	44.5% 13.3% 27.3% 14.8%	6 Very Important	n=128 av.=2.13 md=2 dev.=1.14

"clickers"/classroom response system	Do not know	44.5% 21.1% 23.4% 10.9%	Very Important	n=128 av.=2.01 md=2 dev.=1.06
antiplagiarism software for written assignments such as Turn It In	Do not know	25% 10.2% 31.3% 33.6%	Very Important	n=128 av.=2.73 md=3 dev.=1.17
podcasting	Do not know		Very Important	n=128 av.=1.95 md=2 dev.=0.99
ebooks and electronic textbooks	Do not know	15% 12.6% 34.6% 37.8% 1 2 3 4	Very Important	n=127 av.=2.95 md=3 dev.=1.05
Webinar tools such as CCCConfer, Adobe Connect, GoToMyMeeting, SKYPE, Online tutoring (e.g. SmartThinking)	Do not know	27% 11.9% 36.5% 24.6%	Very Important	n=126 av.=2.59 md=3 dev.=1.13
Document Management System to track and store electronic documents such as Xtender	Do not know	41.6% 12.8% 23.2% 22.4%	Very Important	n=125 av.=2.26 md=2 dev.=1.22
MOOCS (Massive open online course)	Do not know	51.2% 18.1% 19.7% 11%	Very Important	n=127 av.=1.91 md=1 dev.=1.07
Cloud technology	Do not know	30.4% 8.8% 32% 28.8% 1 2 3 4	Very Important	n=125 av.=2.59 md=3 dev.=1.2
Online test proctoring	Do not know	42.4% 6.4% 32.8% 18.4% 1 2 3 4	Very Important	n=125 av.=2.27 md=3 dev.=1.19
Live broadcasting such as the AHC graduation and the president search forum	Do not know		Very Important	n=126 av.=2.58 md=3 dev.=1.07
mobile APPs	Do not know	26.6% 18.5% 34.7% 20.2%	Very Important	n=124 av.=2.48 md=3 dev.=1.09
11. How would you rate the technology infrastructure at AHC?				
computer networks and data communication	Do not know		Excellent	n=125 av.=3.14 md=3 dev.=0.61
		1 2 3 4		

telecommunications and phone system	Do not know	4% 9.5% 57.1% 29.4%	Excellent	n=126 av.=3.12 md=3 dev.=0.73
wireless networks	Do not know	7.1% 11% 65.4% 16.5%	Excellent	n=127 av.=2.91 md=3 dev.=0.75
user support services (helpdesk)	Do not know	3.2% 17.5% 57.1% 22.2%	Excellent	n=126 av.=2.98 md=3 dev.=0.73
computer labs	Do not know	20% 16.8% 53.6% 9.6%	Excellent	n=125 av.=2.53 md=3 dev.=0.92
enterprise systems such as Banner and IFAS	Do not know	8.8% 31.2% 56% 4%	Excellent	n=125 av.=2.55 md=3 dev.=0.71
computer resources to support your job functions	Do not know		Excellent	n=126 av.=2.87 md=3 dev.=0.58
multimedia/ AV enabled classrooms	Do not know	20.2% 19.4% 46% 14.5%	Excellent	n=124 av.=2.55 md=3 dev.=0.97
Hancock public web site	Do not know	1.6% 15.7% 67.7% 15% 1 2 3 4	Excellent	n=127 av.=2.96 md=3 dev.=0.61
myHancock portal	Do not know	2.3% 19.5% 64.1% 14.1%	Excellent	n=128 av.=2.9 md=3 dev.=0.65
technology training	Do not know	4.8% 46% 43.7% 5.6% 1 2 3 4	Excellent	n=126 av.=2.5 md=2 dev.=0.68
emergency communications / notification system(s) (UAlert)	Do not know	14.3% 23.8% 50% 11.9% 1 2 3 4	Excellent	n=126 av.=2.6 md=3 dev.=0.88

12. What are the barriers to using Technology at AHC?	(check all that apply	()		
Training			62.1%	n=132
	Access		37.1%	
	Time		47%	
	Funding		50%	
	Too confusing		21.2%	
	Other (write in)		15.2%	
13. How important is offering these functions on a Han	cock mobile app for e	employees?		
Maps	Do not know	16.8% 20.8% 40.8% 21.6% 1 2 3 4	Very Important	n=125 av.=2.67 md=3 dev.=1
Employee directory	Do not know	11% 11% 46.5% 31.5% 1 2 3 4	Very Important	n=127 av.=2.98 md=3 dev.=0.93
News and events	Do not know	14.5% 16.1% 50% 19.4% 1 2 3 4	Very Important	n=124 av.=2.74 md=3 dev.=0.94
Notifications such as a cancelled class or school closure	Do not know		Very Important	n=128 av.=3.35 md=4 dev.=0.94
Class rosters	Do not know		Very Important	n=125 av.=2.58 md=3 dev.=1.12
Class schedule	Do not know		Very Important	n=125 av.=2.85 md=3 dev.=1.11
Catalog course description	Do not know		Very Important	n=126 av.=2.61 md=3 dev.=1.06
Leave report (vacation and sick time)	Do not know		Very Important	n=126 av.=2.6 md=3 dev.=1.02
Your address in the HR system	Do not know		Very Important	n=124 av.=2.15 md=2 dev.=0.98
14. What is your opinion of the current replacement cvo	cle of district-owned (desktop & notebook computers?		

student labs	No opinion	33.6%	30.4%	34.4%	1.6%	Too often	n=125 av.=2.04 md=2 dev.=0.87
faculty offices	No opinion	37.8%	22.8%	34.6%	4.7%	Too often	n=127 av.=2.06 md=2 dev.=0.96
administrative offices	No opinion	50.4%	15.4%	30.1%	4.1%	Too often	n=123 av.=1.88 md=1 dev.=0.98
staff offices	No opinion	28.9%	33.1%	34.7%	3.3%	Too often	n=121 av.=2.12 md=2 dev.=0.87

15. How do you think the district should fund technology replacement after Bond Measure I technology funding is no longer available? (check only two boxes)

	district funds			65.2	!%	n=132
	grants			39.4	.%	
Endowm	ents and donations			15.2	.%	
Asset recover program s	uch as Dell Rebate			17.4	.%	
special funds such as lot	tery when available			21.2	!%	
restricted funds such a	s special programs ()			2.3%	6	
	Other (write in)			4.5%	6	
16. What are your biggest technology security concerns a	t Hancock?					
electronic hack of AHC data (student, personnel, financial)	Not concerned		2 3	% Very	concerned	n=125 av.=2.27 md=2 dev.=0.72
identity theft	Not concerned	16% 40	2 3	%Very	concerned	n=125 av.=2.27 md=2 dev.=0.72
theft of computers	Not concerned	18% 43	3.8% 38.3 2 3	%Very	concerned	n=128 av.=2.2 md=2 dev.=0.72
hack attack on campus network	Not concerned	17.6% 44	1.8% 37.6 2 3	%Very		n=125 av.=2.2 md=2 dev.=0.72
computer malware	Not concerned	16.4% 53	3.3% 30.3 2 3	%Very	concerned	n=122 av.=2.14 md=2 dev.=0.67

problems with social networking site (e.g. Facebook) such as phishing, harassment, hacks or other problems	Not concerned	39.2%	43.3%	17.5%	Very concerned	n=120 av.=1.78 md=2 dev.=0.72
17. How useful are the following electronic communication	on methods for your	job duties?				
email	Not useful	0%	6.8%	93.2%	Very useful	n=132 av.=2.93 md=3 dev.=0.25
myHancock portal	Not useful	10.8%	33.1%	56.2%	Very useful	n=130 av.=2.45 md=3 dev.=0.68
Hancock public website	Not useful	19.8%	42%	38.2%	Very useful	n=131 av.=2.18 md=2 dev.=0.74
newsletters (News2Know, Thinking Out Loud)	Not useful	21.1%	64.1%	14.8%	Very useful	n=128 av.=1.94 md=2 dev.=0.6
text messaging	Not useful	44.5%	44.5%	10.9%	Very useful	n=128 av.=1.66 md=2 dev.=0.67
Facebook	Not useful	72.9%	25.6%	1.6%	Very useful	n=129 av.=1.29 md=1 dev.=0.49
Twitter	Not useful	87.6%	11.6%	0.8%	Very useful	n=129 av.=1.13 md=1 dev.=0.36
telephone	Not useful	10.8%	33.1%	56.2%	Very useful	n=130 av.=2.45 md=3 dev.=0.68
Skype or other video conferencing	Not useful	49.6%	36.4%	14%	Very useful	n=129 av.=1.64 md=2 dev.=0.72
FAX	Not useful	41.9%	37.2%	20.9%	Very useful	n=129 av.=1.79 md=2 dev.=0.77
Instant Messaging	Not useful	46.4%	33.6%	20%	Very useful	n=125 av.=1.74 md=2 dev.=0.77

18. Which electronic communication methods do you use to communicate to students?



Thank you for your input!

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Lompoc Valley Center One Hancock Drive Lompoc, CA 93436 805.735.3366

Vandenberg AFB Center

144 Wyoming Avenue, Bldg. 14003 Vandenberg AFB, CA 93437 805.734.3500 or 805.605.5915

Solvang Center

320 Alisal Road, Ste. 306 Solvang CA 93463 805.693.1543

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