"Technology and the User Experience" Diagonal Slice Group
Leveraging the Power of Technological Change for the Benefit of Students and Faculty

REPORT

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Contents

Introduction

The primary goals of the Task Group were:

- To make specific implementation recommendations based on the broader set of recommendations included in the Strategic Planning Small Groups documents (2012);
- To distill the strategic goals and broad recommendations in those documents into a set of tactical, specific recommendations;
- To recommend important projects to be implemented which are not included in any of those documents.

To meet these goals, the Task Group reviewed the Strategic Planning Small Groups documents prepared by Library Departments and Units as well as the document "Technology Plan for Proposed Oviatt Learning Commons."[1]

The scope of the recommendations focuses on areas related to leveraging the power of technology for the benefit of users without any consideration to budgetary and staffing needs.

The recommendations proposed here are grouped in three areas. Note, however, some recommendations may have relevance to several areas, but have been categorized under the area most appropriate to its content.

- A. Infrastructure
- B. Systems
- C. Collections & Services

A. Infrastructure

Recommendation A1. Increase Presence and Accessibility of Power Outlets.

There is general agreement about the need to increase the number of power outlets throughout the Library. This has been a recommendation across several of the Strategic Planning Group documents and mirrored in our own group's discussion. Currently power cables are often strung across walkways which not only create a burden for students but are also a clear safety hazard. There should be accessible outlets within study rooms and group study rooms. All furniture should have their own power plugs (ideally off the floor and easy to access) and enhanced multimedia capabilities. This will create a more amiable technological environment where students are enabled and empowered to study with personal digital devices.   Charging stations should be provided if we are to encourage the use of personal digital devices by students, so that they are assured that their devices will remain useful throughout the day.

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[1] Lynn Lampert and Marianne Afifi. (2012)."Technology Plan for Proposed Oviatt Learning Commons."

Recommendation A2. Provide Technology-Driven Spaces and Furniture.

There are a number of ways the Library can facilitate and meet the technology needs of users through enhancing the capabilities of study and group study rooms, and spaces. Group study rooms should be enhanced with the following:

- access to support more multimedia equipment, including screens and projectors;
- access to the University Video Network (UVN);
- network cable connections.

Providing access to these kinds of collaborative "presentation" style rooms will enable students to work together more effectively on technology-driven projects. This would also provide spaces for smaller group instruction and presentations. Students would be responsible for the equipment when using these rooms.

Recommendation A3. Implement Digital Interactive Information Kiosks.

The availability of interactive kiosks in the lobby and on additional floors of the Library would provide users additional ways to navigate information about the Library, such as collections, locations, and services. Information kiosks could also serve to provide general information, knowledgebases and FAQs to help streamline directional questions, and help users navigate ("wayfinding") the Library. Additionally, if automated reservation and availability functionality were to be included, these kiosks could provide information about the availability of group study rooms, availability of open computers, and provide ways to reserve and checkout rooms or digital services. When not in use, information kiosks could also serve as digital signage, drawing attention to marketing and general announcements, and showcase Library exhibits and events.

Explore the use of information kiosks, or additional system(s), where users would be able to check the availability of specific Library resources. This/these system(s) (either through our website or a digital kiosk) would allow users to be able to check the availability of group study rooms, laptops, e-readers, computer and scanner stations, as well as other technology-oriented spaces, and allow users the ability to reserve and/or check-out these resources as appropriate. Systems used by other universities can be researched, such as LabMap[2], used by Florida Gulf Coast University and the University of Washington Libraries' group study room reservation system[3].

Recommendation A4. Create "Tech Sandbox" Spaces for Users

A "Tech Sandbox" is a space for users to experiment with current technology and software. These spaces give our students the opportunity to gain experience using the latest software and technology in order to be competitive in the job market. Additionally, in order for our staff and librarians to be able to answer questions about software and technology, we must be knowledgeable as well. Loading popular

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[2] http://library.fgcu.edu/CTS/Technology/LabMap.html
[3] https://www.lib.washington.edu/services/facilities/studyrooms/

additional software on all or selected student computers (i.e. Photoshop, Dreamweaver, Adobe Premiere, CAD programs, Math/Science/Programming Applications (Mathematica, Python etc.)), as well as access to our Virtual Software Labs will allow students to create innovative projects and get practice on productive software. Hardware should also be considered in these spaces, as we could offer services for those that are on that side of technical development. Possibilities for practical hardware could be 3-D printing devices, "Raspberry Pi" devices (small, cheap, and great for technical training, and introduction to systems and programming), artist "tablet" input devices, Smartboards, moveable whiteboards (or glass boards, for brainstorming), and accessibility-driven devices for testing. NCSU has implemented their own technology sandbox within their library and offer many of these services.[4]

B. Systems

Recommendation B1. Increase Collaboration across the CSU.

Based on the current model of collaboration and support provided by the Chancellor's Office in the adoption of systems and services (e.g., OneSearch, Link Resolver, MetaLib) to individual CSU campuses, continue to leverage the adoption of new systems and services at the CSU level.

There are also opportunities to work with the rest of the CSU in matters of technology and resources. The Chancellor's Office already has a number of listservs and codebases—there are a few CSU based repositories already in place that share code--which can contribute to a collaborative effort in how back-end processes are run, and should help to reduce redundancy in digital efforts. Shared resources should also be a consideration in bulk software purchasing, and sharing multi-user licenses across the campuses, which would help ease the cost of purchasing small or limited licenses that are campus specific.

Recommendation B2. Increase Collaboration within CSUN.

To help users with technology needs that are beyond librarians' skills or abilities, the Library must partner with campus IT services as a support service within the Library. This support could involve an IT service desk or representative at or near the reference desk, on chat, etc. There was a recent discussion about this at the LIB IT South meeting in Fullerton, and other programs have had success by having an IT person from campus directly involved within the library, which not only provides a liaison between the Library and Campus, but also increases IT's understanding of Library processes and needs, which are not always clearly understood. Librarians can also work with IT representatives to provide technology and software training on many competency levels throughout the semester. Trainings could be on basic computer literacy, or specific programs (e.g. MS Office, EndNote), and social media.

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[4] http://www.lib.ncsu.edu/technologysandbox

Recommendation B3. Explore Single Sign-On and Sharing of Student Information between Systems.

Explore with CSUN IT Department current problems related to the Active Directory while new students attempt to login into the Library system. Are there solutions to minimize problems related to the authentication methods (username & password) from campus-level to the Library? Explore a single sign-on method and/or build a more robust LDAP system, since it is not always easy to parse out whether user is faculty, staff, student (undergraduate or graduate, which would be useful information to target specific resources to users. Collaborate with IT to evaluate current processes to identify a better method. Shared user information would enable authentication for wired and wireless printing management, customized landing pages on our web presence (CSU San Marcos has implemented this in their Drupal system), enable us to check out resources (study rooms, laptops, tablets, e-readers) tied to a student's identity, and eliminate the need for redundant sign-ons for different systems (navigating from Xerxes saved records, to the CSUN portal, to our databases all require individual authentication).

Recommendation B4. Create a "Shared Knowledgebase" for Information Sharing.

Integrate the sharing of information across systems and services (e.g., LibAnswers, Learning Resource Center, Reference Desk, Information Kiosk input, Learning Commons, Circulation) through the creation of a common "shared knowledgebase" which would provide a unified—and more convenient—system for users to access information. Explore mechanisms and systems to integrate information into a single system (e.g., FAQ).Recommendation B5. Create, Update, and Revise Computer Use Policies.

Recommendation B5. Create, Update, and Revise Computer Use Policies.

The Library currently provides access to computers in a variety of locations throughout the library. The existing computer use policy provides guidelines for use but does not include any restrictions for non-CSUN users.[5] The only limitation for non-CSUN users is that there are a limited number of computers on all of the floors that do not require a campus login. The lack of time limits for both CSUN and non-CSUN users means that there are not always computers available for those who need one. Policies for computer usage and other technologies need to be in place to ensure that academic community users are given priority. These policies should include access for the public, locations, time limits, etc. It is also suggested that public computers have limitations on the types of access. For example, some libraries only allow access to campus and Library websites, not the entire Internet, on public computers.

Here are examples to consider in revising Library policies:

- California State University Library Policy and Space Standards (http://www.calstate.edu/icsuam/sections/9000/section-6/9068.shtml)
- California State University, Long Beach (http://www.csulb.edu/library/guide/computing.html)

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[5] http://library.csun.edu/About/ComputerUse

- California State University, Los Angeles
  (http://www.calstatela.edu/library/librarycomputers.htm)
- Humboldt State University (http://library.humboldt.edu/missionpolicies.html)

C. Collections & Services

Recommendation C1. Implement Laptop, E-Reader, & Tablet Checkout.

To keep up with technological trends and offer our students as many productive services as possible, we must encourage students to use technology in their studies as well as bringing their own to campus. A more robust laptop lending program with several options could be implemented. Students may need laptops for longer periods of time, out-of-library group study, student group tables, class presentations, etc. A 24-hour out-of-library laptop checkout will give students more mobility with their studies. Students who take laptops home are still fully responsible for damage, theft, etc. Higher fines could be placed for late laptops and/or we can put aside a number of laptops that are library-use-only with cheaper late fines. Laptops are more delicate than desktops. They are harder to maintain and would require more resources (support staff). A centralized service center would have to be established, where laptops could be serviced, re-imaged, and put back into circulation. If the Library is truly intending on increasing the Laptop population, this service center must be capable of re-imaging a substantial portion of their laptops at once. Otherwise certain updates will hinder the availability of these systems.

Tablets are becoming more ubiquitous than personal computers and the Library continues to offer more e-publication options to our users. We must give our users access to these materials by providing the necessary devices. Purchasing a mix of e-readers and tablets will give users accessibility and preference options. However, there needs to be some serious assessment of tablet/e-reader devices to explore the methods of maintenance and lending associated with this type of service, as well as ensuring that we are providing compliant accessible technologies. While checkout rules would be similar between laptops, tablets and e-readers, there would need to be some exploration in how policies should be set for each. Twoexamples include The Student Genius Corner (SGC) at CSU Fullerton which allows long-term laptop checkout;[6] and Cal Poly San Luis Obispo checks out laptops as well as Kindles, iPads, and a variety of AV equipment and has specific guidelines in place for usage, checkout, fines and replacement costs.[7]

Additionally some form of a management tool for configuring/controlling the tablets should be investigated and selected. It would substantially help with maintaining these devices.[8,9]

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[6] http://www.fullerton.edu/IT/services/computer_labs/index.asp
[7] http://lib.calpoly.edu/learningcommons/services/checkouts/
[8] http://en.wikipedia.org/wiki/Mobile_device_management
[9] http://www.apple.com/iphone/business/it-center/deployment-mdm.html

Recommendation C2. Implement Wireless Printing.

There is (anecdotal) evidence from user requests to support the implementation of wireless printing. It would be helpful to users to have the ability to track and wirelessly print documents in the Library in a safe and secure way. With the encouragement and enabling of greater use of personal digital devices, wireless printing would effectively expand our current printing capabilities, and free up computer workstations to those who wish to study, rather than being tied up for document printing. The USU's computer labs offer print management tools that are tied in with student's accounts, and allow for greater ease in self-service. Explore solutions for an effective mechanism to implement wireless printing.

Recommendation C3. Increase Scanning Services within the Library.

In addition to the "tech sandbox," and expanded technology in our study rooms, there is a need for expanded ability for patrons to scan documents and materials. Scanning increases anywhere access to information, and reduces the waste and cost of printing out documents needlessly. A few self-service scanning stations with flatbed and openbook scanners (like the one at Special Collections & Archives) throughout the library would be beneficial.[10] Such self-service stations should be located near service desks with personnel trained to assist patrons who have scanning questions. In addition to or instead of multiple stations the library could also have a "digitization center" where support is provided (preferably within the Learning Commons, where the helpdesk is readily accessible in case support or training needs to occur). The "digitization center" could also offer text-to-speech book readers for visually challenged students as well as other technologies to increase the access to materials for all students. [11,12]

Recommendation C4. Create and Distribute Consistent, Comprehensive Instructional Materials.

Create and distribute consistent, comprehensive instructional videos, blogs, webpages, and other tutorials and make them available on a well-organized and appealing web presence. In addition to expanded in-house training for students, faculty, and staff, content should be created to catch up with the ever changing technological nature of the Library and research in general. Much of our instructional material needs updating to reflect our newer site, search appliances, and changing hardware within the Library. Additionally, our "Tutorials and How-To" page[13] should be re-designed to appropriate UX standards, making the tutorials easy to browse and include all participating librarians' tutorials in one place. Best practices guidelines should be created to keep Oviatt Library digital learning objects consistent in style and usability as well as in promotion and distribution of content.

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[10] http://www.stimaging.com/products/zeta
[11] http://www.stimaging.com/products/st-bookreader-center%E2%84%A2
[12] http://www.lib.ku.edu/technology/scanprintcopy/scannersbytype.shtml
[13] http://library.csun.edu/ResearchAssistance/Tutorials

Recommendation C5. Foster Digital Literacy

The Library needs to foster a digitally literate academic community. Digital literacy is "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills," as defined by ALA Digital Literacy Task Force.[14]

In order to keep up with changing technologies, regular presentation of services and skills would benefit all Library employees. Suggested content of presentations includes new services such as LibAnswers, free tools such as PollEverywhere, subscription tools such as Noodlebib, and tips and tricks for using Library systems (e.g., OneSearch) and databases to find resources. The expansion of media friendly and technology spaces could be utilized for continuing professional development for both staff and faculty. By keeping Library employees up to date on relevant technologies, outreach and education to the rest of the academic community can be performed. Develop training programs:

- Train-the-Trainer programs (Library employees);
- User training programs (students and faculty).

Recommendation C6. Facilitate Digitization of Collections.

Continue to increase the number of eBooks and electronic periodicals in our collection, through subscription or purchasing services that are perpetual. Consider digitization of our periodicals and microfilm/fiche/card collections into electronic materials. This would clear up some room and make users' researches more convenient. Copyright and accessibility issues should be addressed and weighed in so that the library can fully comply. Publisher partnerships for funding such projects can be one of the routes to acquire extra hardware and software as well as project based assistants. For example, our newest microform reader can have cruise control software added to it to allow fast scanning of microfilm reels.[15] Open a dialogue with other university libraries that have already done similar digital conversion of their microform (i.e. Fresno State's Madden Library).

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[14] http://connect.ala.org/node/181197
[15] http://www.stimaging.com/products/viewscan-software/st-cruise-control-software