

brick & click

an academic library symposium



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northwest missouri state university

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Brick and Click Libraries

An Academic Library Symposium

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Brave New World

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Abstract

The Information Services Department at Texas Tech University had been providing reference, library instruction and collection development responsibilities according to traditional librarianship. Four years ago, Laura Heinz, new department head, listened to the frustrations and concerns of the librarians as they struggled to meet the needs of their subject areas. Connecting the Library's mission statement's focus on "providing individualized service" and the librarians' need to have time to better meet the needs of their department faculty and staff, Heinz removed librarians from the Reference Desk and encouraged librarians to become more engaged in their subject areas and to explore creative and innovative ways to meet the needs of their users. The concept of "Personal Librarian" was created and promoted. This precipitated a structural change on the main floor of the Library as two new service points were created to offer library users assistance by trained classified staff and student assistants regardless of the entrance they use to enter the building. One librarian was assigned responsibilities as a 'triage librarian'. This librarian's primary responsibilities were to be the in-house librarian referring subject specific questions to the appropriate librarian. Managing change, overcoming resistance and a shift in culture were important to the success of the new structure. While this shift was uncomfortable for some, most embraced the change recognizing the opportunities within the new structure. Librarians worked to meet the needs of their academic areas; some held office hours in the academic departments; some collaborated with faculty to develop subject specific instruction for individual courses. Recently, the department's name was changed to Research, Instruction & Outreach to better reflect the evolution of the department. This article discusses the Texas Tech experience.

Carrye Syma, Associate Librarian, seized the opportunity to customize her service to her subject areas. With the removal of the Reference Desk and thus the elimination of desk hours, Syma found that she had more opportunities to schedule database demonstrations, tours and work more closely with departmental faculty. Demonstrations could be offered in the Library or in the department or college requesting the service. In many cases, it was possible to receive a request and within a week offer the demonstration. With the exception of regular departmental, Library wide, or campus wide meetings, Syma was available in her office for walk in appointments. Students needing assistance are now able to walk in to the library and in many cases, meet with the librarian for their area immediately. Syma has been able to go over to her subject area buildings and meet with faculty in an impromptu and casual manner thus creating a nice working relationship. The removal of the Reference Desk responsibilities presented personal time management challenges but also allowed for more time to be spent collaborating with colleagues on various projects.

Introduction

The world of information and access is changing—libraries and librarians are changing. Academic librarians are working with familiar issues—journal pricing, access, open access. The Texas Tech University Library has been through a transformational process with the emerging role of librarians. Heinz has worked in academic libraries for over 25 years and can remember the days of card catalogs, print indexes, and check-out cards. Technology and libraries have evolved holding hands. Librarians are constantly seeking new ways to use technology to meet the needs of their users. From the first automated circulation system to federated searching, librarians have consistently sought ways to integrate technology into the user experience. However old habits die hard.

Literature Review

Prior to 2007 library literature and discussions at professional conferences centered on the need to discover methods to provide library services to online students. Traditional reference desk service continued with on campus students while librarians strove to find ways to provide the same services to students at a distance. Services for distance students began with websites, remote access to databases and toll-free numbers were available but did not offer assistance directly linked to the distanced course. Embedding librarians into online courses became the primary method to reach students enrolled in distance courses. Librarians were able to connect with students directly assisting them in the same manner as they could at a reference desk. Bugg and Odom described reference services as an important criteria used by university administrators, faculty and students to measure the effectiveness of the library (194).

Using services developed to reach distance students to reframe traditional face to face reference service provided Texas Tech Librarians opportunities to create individualized and personalized services for the students and faculty in their assigned subject areas; however, freedom from the desk presented new challenges.

Studies and literature focusing on time management are abundant. In addition to information on time management, articles on procrastination are helpful when implementing a new model such as the one implemented at Texas Tech University Libraries. Numerous articles were reviewed by various personnel in the department. One article the authors found beneficial is *Time Management: Test of a Process Model* by Therese Hoff Macan. There is a wealth of practical information in this article. Especially helpful for us was the section on Time Management Behaviors Lead to the Perception of Control Over Time. In this section Macan writes, "By setting goals, scheduling, and organizing, one gains a sense of mastery over how one allocates one's time; that is, the perception that one has control over one's time." (382). Macan goes on to discuss this perception, but what was found to be applicable was goal setting, scheduling and organizing. A great deal of goal setting went on and continues within the department. Scheduling is dependent upon what each librarian/liaison has going on in his/her day. Organization continues to be a challenge with regards to some paperwork such as statistic and monthly reports.

Procrastination is one of the enemies of time management. The saying, 'Why do today what you can put off until tomorrow' come to mind. In their article, *Belonging to Tomorrow: An Overview of Procrastination*, Wilson and Nguyen discuss the perception of procrastination, "Does it interfere with occupational, academic or personal situations? Does it deserve a place in the DSM-V or DSM-VI? Or is it a sporadic, common but ultimately harmless behavior to be laughed off and laughed at?" (211) For most people, procrastination is very real and may be battled with some of the suggestions in Macan's article: goals, scheduling and organizing.

Rationale for Change

Heinz returned to the University Library in August 2007 after serving as Senior Director for Outreach and Extramural Services for the Texas Tech University Libraries of the Health Sciences. Previously she had held various positions at the University Library but none afforded her the management experience needed to equip her for her current position. Information Services was a mixture of new and familiar faces. She could sense and heard informally about issues of concern. Most issues focused on time constraints due to hours tethered to the desk and excessive committee meetings. Librarians schedules including 15-18 hours/week on the desk plus two evenings/ month and two weekend days/month and scheduled hours to monitor chat via Meebo and Question Point. Crowe's analysis of questions asked at the Information Desk at Kent State University's main library revealed the majority of questions asked were directional or instructional revealing the need to provide ongoing training for desk workers (8-11). Heinz surveyed the librarians and student assistants working the Reference Desk asking them to submit to her the top ten questions asked at the reference desk. *Where's the bathroom and printer* were the top questions with the remaining top ten questions being directional in nature confirming Crowe's findings. In addition to the weekly department meetings, librarians were expected to attend weekly meetings focusing on collection development, reference, instruction as well as meetings focusing on discipline areas (humanities, social

sciences, sciences). Comments concerning this overabundance of meetings included the inability for the committee to actually get anything accomplished. Librarians felt they did not have enough time to do their jobs and reach out to faculty and students in their assigned subject areas. A significant shift in the culture of the department was needed. Heinz decided the best method was to first meet the needs of the IS faculty to better equip them to meet the needs and challenges of providing the highest level of service to Libraries' users. After polling the librarians as to the most often asked questions at the Reference Desk it was revealed that most of these questions were directional and could be answered by trained classified staff and student assistants. Student Assistants were already responsible for staffing the Reference Desk from 10 pm-midnight and, with the exception of the 4-6 hours a librarian was assigned desk duty, the remainder of the weekend.

Transforming Service

Removing the Librarians from desk duty enabled them to become more engaged with the faculty and students in their subject areas. This precipitated a structural change on the main floor of the Library as two new service points were created to offer library users assistance regardless of the entrance they used to enter the University Library. While this shift was uncomfortable for some, most embraced the change recognizing the opportunities within the new structure. IS Librarians were now free to determine the best ways to meet the needs of their subject area faculty and students which directly aligned the department with the Libraries' Mission Statement ("Through individualized service, the Texas Tech University Libraries connect users with resources that advance intellectual inquiry and discovery.")

In addition to face to face contact, students and faculty have numerous options to reach their librarian—via chat, email, text, or the newest innovation, our Need Help Box on the home page of the Libraries' website . Users can ask for help with a specific class, research in general or other questions and is open 24/5 Sunday-Thursday and until 11 PM the other two nights , Friday and Saturday. The University Library is the highest trafficked building on campus so the decision was made to remain open more hours to better serve our students and faculty. Students and faculty are able to access the building using their Texas Tech ID after 10 pm.

Each department, college or institute has a librarian assigned to them. This librarian is known as their Personal Librarian and focuses on providing services and resources to meet their instruction, scholarly and research needs. The Personal Librarians are easy to locate from the Libraries' website, listed alphabetically, from the personal librarian page one may see the librarians name as well as his/her email address. In addition to the twelve Personal Libraries, there are two general reference librarians who serve at the desk between traditional business hours, 8-5, and assist with the training of staff and students working the Service Desks. Reference Librarians assist with general questions and monitor chat questions. The Reference Librarians developed scripts for the most often asked questions in chat. In the evening, nighttime supervisors (full-time staff) are able to continue monitoring and answering chats with these scripts.

If assistance in a subject area is needed, the user will be referred to the Personal Librarian assigned to the subject. Using Microsoft Lync, Reference Librarians are able to immediately contact the Personal Librarian who is then able to meet the user at the Service Desk to provide more in-depth assistance. If the Personal Librarian is not available, the user is provided contact information and the Personal Librarian is emailed the user's information for follow-up.

Previously users were served by a Circulation Desk, a Reserve Desk and the Reference Desk. New service points were created by consolidating the three separate desks into two desks stationed at both entrances to the University Library. The ease of having two identical service points is less confusing for the user as they are not pointed from one desk to another for the service they need.

Since moving from the traditional reference desk model, personal librarians have been able to meet with students and faculty more. In many cases we are able to offer more database demonstrations and tutorials to our subject areas in addition to providing one on one session and in some cases office hours in other departments. Two of our colleagues have been working together with the animator and videographer from

our Communications and Marketing Department to create very short research process videos. These are available from our library homepage under services, library instruction courses tutorials. These short videos are very beneficial for distance learners. When a user clicks on any of the college or department names, you will be taken to a page with a picture of the librarian for that subject area. In addition to various information about articles, books and research assistance, users can locate best sources for beginning research.

Additionally, Personal and Reference Librarians teach a one-hour credit course: LIBR 1100: Introduction to Library Research. Some librarians prefer to team teach while others are the sole instructor for the section. The new structure allows for more librarians to be involved with this course than the previous structure permitted.

New Challenges

Syma has been in academic libraries as a Librarian since 2003 joining Texas Tech University Libraries in 2005. Now an Associate Librarian, Syma is responsible for the College of Mass Communications and the Departments of Communication Studies and Health, Exercise and Sport Sciences. When Syma began her tenure at Texas Tech University Libraries, there were several ways for students to reach librarians including through Meebo chat and Question Point chat. The Reference Desk was staffed by librarians from 8-5, nights until 10pm and weekends abbreviated hours Saturdays and Sundays.

When the shift from librarians on the desk to a personal librarian model occurred in 2008 there were many changes that had to be made by the newly minted personal librarians. For many, time management was an issue. Rather than being restricted by desk hours, Librarians were now accountable for their time between 8-5. Structuring of time was based on each individual's department or college needs. Would it be spent in their department or college liaising with faculty and students, or in the Library conducting one on one research sessions or database demonstrations? Librarians time became their own and had to be managed accordingly. Interestingly there seemed to be less 'down time' once the Librarians were able to manage their own time. Attending Faculty Meetings for their areas and visiting faculty in their buildings to get information about collection development needs took a great deal of time as did one-on-one meetings with users. The authors observed faculty who had previously sent their graduate students to the library were now engaging with their Personal Librarian for one-on-one instruction to learn online searching techniques for accessing resources.

Follow up also became a critical issue for librarians. It is always important to follow-up in a timely manner, however now librarians were able to structure their schedules to allow for follow-ups in person rather than just by phone or email. Microsoft Outlook became a very useful tool for librarians as messages could be flagged and or added to tasks. The calendar function allowed for librarians to structure time as well as detail needed follow-up information. In addition to this tool, Microsoft Lync has enabled librarians to ask one another for assistance with questions when a walk-in comes in. Many times librarians may encounter overlap with students they are assisting. For example, a student in Advertising may also need some of the resources familiar to Business. The librarians for both areas could instant message using Lync to get the user the resources he/she needed.

Getting the Word Out

The University Library has its own Communications and Marketing Department. Five staff including a graphic designer, 3D animator and electronic media coordinator create print and electronic marketing tools and provide "free stuff" for the librarians to take to Red Raider Orientation, campus resources fairs, International Student Orientation, New Faculty Orientation, University Day for visiting high school students and wherever outreach can take place. Even if there aren't things to give away – librarians present a friendly face and talk about 1 or 2 resources. The key is to sell benefits not features or bore with numbers!

In 2011, Texas Tech Libraries were video profiled and broadcast in Times Square after winning the "Focus on Your Library" Competition sponsored by Thomson Reuters. This video shows our very mobile

and visible LOST cart and shirts from the Roving Reference Service where Librarians take laptops or iPads to various locations on campus and answer questions (“Times Square Contest Video”). Most of the questions we get are directional but we have received some actual reference questions such as, “I saw a documentary on wind engineering, how can I find out more information about that?”

With the change in structure, librarians have been able to participate in numerous outreach programs. Texas Tech Libraries have a Library Fair every year focusing on library services, including Personal Librarians. Librarians are there to greet students, faculty and staff. Our LOST cart is there to build awareness about that service. Fair attendees are able to find out about equipment available for checkout from the Digital Media Studio such as cameras, projectors and voice recorders. A representative from InterLibrary Library Loan/ Document Delivery is at a booth, we also have a representative from the Digital collections, and Mango smoothies are made for students to try while they learn about the foreign language database! Students are given a chance to complete a Library Passport and win additional prizes.

Social Media has provided librarians with an opportunity to reach out to the students in numerous ways. Donell Calendar, the Personal Librarian for English and Classical and Modern Languages and Literature, recently created a Facebook page for her areas. Her hope is that students will use this page to ask questions, start conversations, and find out about library resources available to them and a potential place to collaborate for classroom research with the opportunity for a librarian to observe and interject.

Twitter is used to tweet the location of the Roving Reference cart on campus. Another brand new (and popular) service is the ability to locate available computers in the Library. Certain times of year it is standing room only and so this lets a student know if a computer is open before he or she even walks in the door. Computer availability may be viewed from the Library homepage as well as thru the TTU Libraries mobile app.

Accountability

Freedom from rigid schedules necessitated accountability mechanisms. Librarians were required to submit monthly reports summarizing their activity to assist with annual evaluations and preparation of dossiers for promotion and tenure consideration. These reports consisted primarily of lists that included number of instruction sessions; hours worked on the desk; time spent in committee meetings, community service and engagement in professional conferences/activities. Heinz required a new format for Monthly Reports to include reflection on activities including what worked and what failed. This new format provided librarians an opportunity to critically analyze their work to make adjustments where needed.

Conclusion

The success of the structure change has not only benefitted students and faculty but also librarians as they are more engaged on campus with their students and faculty but has also opened up opportunity to be creative with how they connect with their areas. Texas Tech Librarians have faculty status and are finding more opportunity for research and collaboration to meet tenure requirements. Job satisfaction, innovation and collaboration have improved within the department as librarians investigate technology and seek opportunities to connect with students and faculty.

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Using Blogs to Develop Critical Thinking Skills

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Abstract

Students are often not academically ready for the traditional peer-reviewed articles required for their research assignments; the articles are sometimes beyond their understanding and out of scope for what they need. The complexity of many scholarly articles frequently makes them unapproachable for undergraduate students, at least as an entry point into academic discussions. Meanwhile, threads of scholarly conversations can be observed in online news sources, blogs, and Twitter, formats that are more familiar to today's students than the popular, trade, and scholarly article distinctions librarians often present. The session will demonstrate an instructional approach that focuses on the content of discussions within expert blogs, and encourages students to think critically about the authors, their arguments, and how conclusions are supported.

This presentation will model an instructional learning activity in which students, played by audience members, will be prompted to work in small groups to answer some key critical-thinking questions about a sample blog. The audience will be provided with examples of blogs both in print (handouts) and online (PowerPoint and online). Discussion of instructional design will be included, and audience members will be encouraged to share their own ideas and experiences with similar activities.

From Overloaded to Opportunity: The Search for a Low-Cost Interlibrary Loan Management System

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Abstract

In 2012, a small private university library experienced an over 40% increase in patron-based interlibrary loan requests, as well as an overall upswing in both lending and borrowing. Statistical analysis revealed that the rise was a direct result of a systemic overhaul of reference services and information literacy instruction, and indirectly related to adjustments in collection development policy.

The surge in demand for resources led the ILL department to examine interlibrary loan processes as current practices were inadequate to meet demand. Where could the department streamline to be more efficient and what technologies would be needed? The department, aware that any improvements would have to be low-cost or no-cost solutions in order to keep within budget, actively looked for creative options to handle the workload and still maintain quality control.

This presentation offers how one small academic library evaluated ILL practices in the library community and then discovered, assessed and adapted an alternative web-based system for its resource sharing management. We will also address any new developments that have occurred since the adoption of the new system and share patron feedback related to the changes implemented.

Introduction

Interlibrary loan (ILL) is somewhat of a chimera. It has several different names, including resource sharing and document delivery, and can be found within different departments in libraries, based on that library's philosophy. Some ILL departments do not loan, others do not borrow- they buy. But regardless of ILL's appearance, it is almost always an important function in academic libraries.

In 2011-12 Rockhurst University Library demonstrated how important ILL was to its community when it experienced an over 80% increase in patron-based interlibrary loan requests, as well as an overall upswing in both lending and borrowing. Rockhurst University is a small, private, academic institution in Kansas City, Missouri with approximately 3,000 FTE (undergraduate and graduate) students. The university's library usually staffs six full-time and four part-time employees. Although the library is divided into Public Services and Technical Services, often there is overlap between the two departments. Interlibrary loan is an integral part of Public Services at the library.

Increase in Interlibrary Loan Requests

In fiscal year 2011-12, the Rockhurst University's ILL unit experienced an 83% increase in overall requests by Rockhurst patrons, from 1,113 to 2,038 (fig. 1). Rockhurst University is a member of the Missouri MOBIUS consortium, an academic and public library collaborative comprising of over 8.6 million titles (About MOBIUS). One of the benefits of membership includes a lending and borrowing system of returnables for all libraries included. The Rockhurst University Library's interlibrary loan unit facilitates all lending and borrowing, whether through MOBIUS, or via more traditional ILL lending.

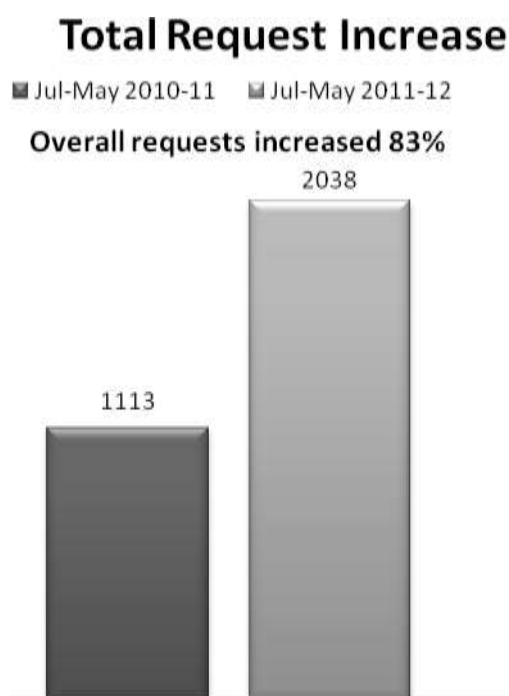


Fig. 1. Interlibrary loan request increase.



Fig. 2. Breakdown of request types.

MOBIUS lending during this time period increased over 50 percent, and returnable items not available through MOBIUS increased 121%. While 121% seems like a huge increase, non-MOBIUS returnables only account for about five percent of the total amount of interlibrary loan requests, with a total number below 50 for the year (fig. 2). The most requests were MOBIUS returnables, with a sizable number of requests (40%) coming in for journal articles, or other non-returnable materials (fig. 2). In terms of processing, article requests were the most labor intensive of the request types, and experiences a 102% increase over the last fiscal year (fig. 3).

The focus of this paper is on requests, but it is significant to note that lending to other libraries also increased about 30% overall at this time. While this was not as dramatic as the increase in requests, it did add to the increase in ILL traffic, and the demands to the interlibrary loan staff member.

Reasons for Increase in Interlibrary Loan Requests

The ILL increase experienced in 2011-12 could be due in part by an increase in instruction sessions. Staff changeover in 2011 precipitated the building of new relationships, or strengthening of previous ones, between academic departments and the Public Services Department resulting in an over 100% increase in instruction sessions taught between 2011 and 2012. At each instruction session, the instruction librarian walked students through how to place an interlibrary loan request and also focused on how easy it was to obtain help through the Ask a Librarian Services. An over 700% increase in patrons utilizing the library's web chat service was experienced in FY2012. Many questions centered upon how to obtain journal articles needed for papers and librarians counseled patrons with how to place requests using an online ILL form, often walking the patrons through the form over the phone or via chat. Libguides™, an instruction guide software system from Springshare™, was also purchased in January of 2012 and information related to specific courses as well as subjects was pushed out to patrons using this system. ILL information was included on each guide created.

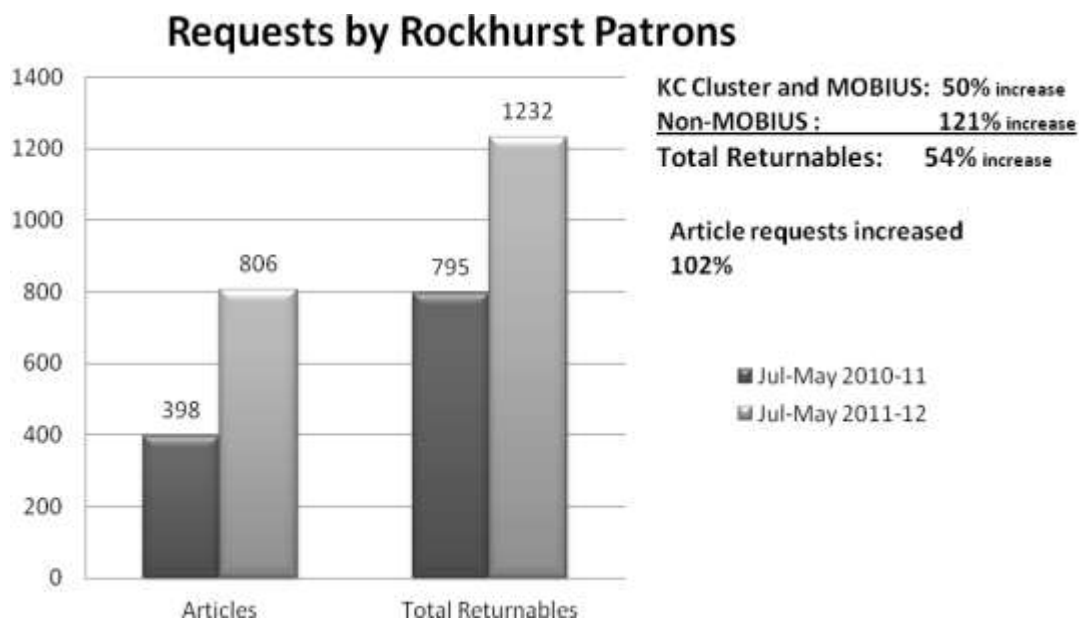


Fig. 3. Request increase breakdown by type of request.

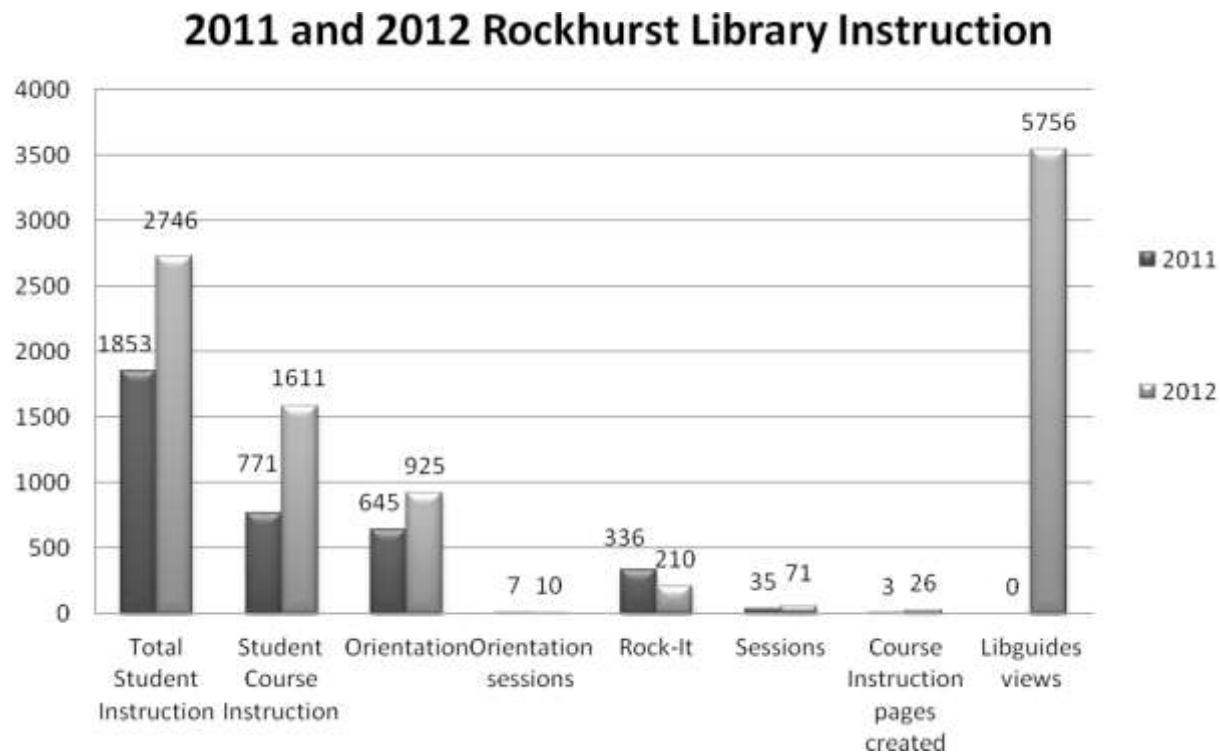


Fig. 4. Increases in library instruction.

Difficulties Caused by the Increase in Requests

On paper, the increase in requests represents a utilization of the library that demonstrates the integral role of the library in a university. In reality, the increase placed incredible demands on the ILL unit. In a large

institution, interlibrary loan is usually a separate department staffed by a supervisor and several employees. ILL, therefore, is the primary responsibility for the department, and each member may have a specialized role (Knox 19). The dynamics for smaller academic libraries are quite a bit different. As a smaller institution, Rockhurst University Library had one person responsible for all aspects of ILL. This was a secondary, sometimes tertiary responsibility for the Public Services Supervisor, in addition to other duties, such as supervising over 30 student assistants, answering reference questions and being the point person for issues with circulation of library materials.

As noted before, the largest increase of requests was in journal article requests. Consortia-related requests for returnables through MOBIUS are largely automated using III Millennium ILS™. Traditionally, journal article requests are the most labor-intensive requests. From citation verification to requesting through OCLC (the main method of borrowing), to receiving and delivering, journal article requests take RUIII almost 5 times as long to process a MOBIUS returnables request, and twice as long as a traditional ILL returnables request.

One large difficulty was caused by the request system that was in place. The ILL system, not including MOBIUS consortia related requests, was mostly manual, involving paper copies of requests and an intricate filing system. The ILL staff struggled to complete requests in a timely manner, and were often slow to respond to problems, such as lost books and articles not received. As the ILL processes were manual, so too were the statistical generation processes.

Because of this increase, the Public Services Supervisor met with the Head of Public Services in January of 2012 in order to brainstorm ways to streamline the department and manage incoming requests.

Utilization of Staff

Staff in the Public Services department recognized quickly that ILL had increased from solely being one person's secondary job duty. Although it was extremely unlikely that any extra staff could be hired to assist with the increase, the library staffed four part-time Public Services staff members for working reference shifts during the day as well as evening and weekends.

Training the part-time staff on some or all of ILL duties would spread out the workload, but there were some additional hurdles to cross. One barrier was the outdated ILL procedures manual as well as the initial training time for each employee. Utilizing the part-time staff would become an important part of the new ILL system, but the ILL unit wanted to first assess how to streamline its current processes, eliminate redundancy and update the ILL manual before training new staff.

Assessment of Workflow

It was easy to recognize that the ILL request system workflow needed restructuring. The difficulties lie in how to change the structure on a limited budget. As mentioned before, the system was cumbersome, mostly because of the back and forth between online and paper requests (fig. 5).

As a small library with a corresponding budget, the unit uses mainly OCLC WorldCat Resource Sharing™ and sometimes Docline™ to place requests with other libraries, but does not have an ILL Management System such as ILLiad™, Clio™ or RapidX™, nor does it participate in OCLC's Direct Request™ system.

The ILL unit had an online request form using SurveyMonkey™ as the form provider. The request form allowed patrons to fill out requests, however, the system had to be checked manually in order to gather requests, as there was no option for e-mail notification and viewing an individual survey/request in SurveyMonkey™ involved navigation of tabs and menus on the SurveyMonkey™ site. Because there was no way to manage the requests in SurveyMonkey™, all requests were printed out and then deleted in the form collector after they were requested. This was the only way to distinguish between new requests and items in process.

Once a request was printed out, the date of the request, the request number and any changes to the citation were written on the request, and the request was placed in a folder, with newest requests on top and oldest requests at the bottom.

When a library sent an article the article was saved as a .pdf if not already in that format, then the article was saved to the staff's desktop. The original request printout was found and updated with date received as well as any notes, then the article was updated in the request system and the article was sent to the patron via e-mail attachment, along with a message. The request printout was then filed for later use with statistics.

INTERLIBRARY LOAN WORKFLOW CHART 2010-11

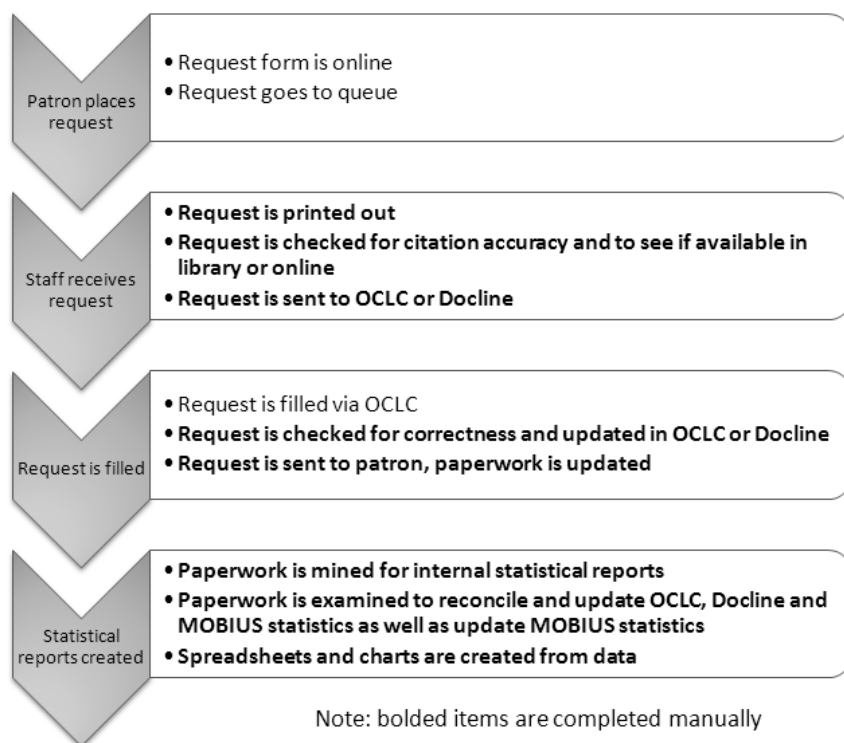


Fig. 5. Interlibrary loan workflow chart 2010-11.

eliminate the back-and-forth of computer to paper system and create a paperless work environment. According to Emily Knox, author of *Document Delivery and Interlibrary Loan on a Shoestring*, anyone can create a paperless ILL system by using a bit of ingenuity, common office software and some familiarity with HTML forms (160).

One of the largest bottlenecks for the Rockhurst ILL unit was the ILL request form, due to the inability to manage and manipulate the data once collected in the form. The idea, then, was to replace the SurveyMonkey™ request form with an HTML form that included JavaScript to automatically send the ILL request to the ILL office via e-mail. Staff would then know when a new request came in, and once filled the initial request could be edited and forwarded to the recipient with the article attached.

While searching for JavaScript code to base the form on, staff found instead an online form building site called Wufoo™. Right away two things stood out as different from the current form builder: 1) the ability to receive instant notifications of new entries via email, texting or even Twitter™ and 2) the possibility of uploading documents, photos and PDF files to individual forms.

After assessing the workflow, it was obvious that in order to become more efficient, the ILL unit needed to eliminate the physical paperwork and automate as much as possible. Technology has enabled a new variety of requests and has brought so many changes to interlibrary loan that the workload has both increased and become more difficult and nuanced (McHone-Chase 2005). Staff in the ILL unit had an opportunity to use technology to its advantage: to streamline processes and become more responsive to students, faculty and staff.

Alternative ILL Management System?

The initial idea to streamline the workflow was to

Features of an Ideal ILL Management System

In order to know whether Wufoo™ could function as an interlibrary loan management system, the ILL unit needed to determine ideal ILL management system features. Staff identified six key categories: patron usability, request forms, staff viewing and navigation, staff side request generation, staff side report generation, and confidentiality. After the categories were identified, three different types of systems were assessed. The first type of system was the traditional ILL management system. Created specifically for ILL, these systems are the gold standard, and include ILLiad™, Clio™ and RapidX™. The second type was the home-grown system Rockhurst University Library wanted to create using Wufoo™ and adapt for ILL. The third type was the mostly manual process currently in place at RUL, using SurveyMonkey™ as an online collection form.

Patron Usability

In terms of patron usability, two of the important features identified were not available using RUL's current system (table 1). These features involved a patron's ability to verify that a request was submitted successfully and a patron's ability to view a copy of his or her request after submission.

Table 1
Patron Usability

ILLiad	New System	Old System	
x	x	x	Patron able to submit requests from anywhere within our site (databases, homepage, LibGuides™)
x	x	x	Request form is online and embeddable as a widget.
x			Patron able to request multiple items from one form or sign/on.
x	x		Patron able to see that his/her request has been successfully submitted with customized response
x			Patron able to see status of request
x	x		Patron is able to view a customized copy of request for records

Request Forms

Table 2
Request Forms

ILLiad	New System	Old System	
x	x	x	Customizable: add desired logo, colors and fonts
x	x		Professional looking
x	x		Uses current web-styling features such as 3-D effects and rounded corners
?	x	*	Skip logic and rules (Example: If student assistant box is checked, then student assistant name is shown, otherwise, it remains hidden)
<i>? items marked with a question mark are unknown</i>			
<i>* items marked with an asterisk denote limited functionality</i>			

The request forms themselves needed to be professional looking, customizable, and created using complex features, such as skip logic and form rules (table 2). The employment of skip logic and form rules make for a cleaner request form, as the information is shown only if the appropriate categories are marked. For example, if the patron indicates he or she is a student, then a field will show requesting the individuals' major. If the patron indicates he or she is a professor, then a field will show requesting the individual's department. This allows the library to gather information without causing confusion by cluttering up the form and requesting information often not necessary.

Staff Viewing and Navigation

Table 3

Staff Viewing and Navigation

ILLiad	New System	Old System	
x	x	x	Request goes directly into the manager or database
x	x		Staff has option to be notified when new requests are received
x	x		Individual records are easily accessed in a variety of ways
x	x	x	Within manager, staff is able to correct and manipulate data on requests
x	x		Within manager, staff is able to make notes, and contact requesting patron with questions or clarifications
x	x		Staff is able to easily sort through requests, identifying which items need attention
x	x	x	Staff is able to see which requests are new.

Staff needed to be able to look at individual requests, as well as find and sort requests by various methods (table 3). By being able to sort through requests, staff can easily identify which items are new, which need attention, and which items are completed. If a citation given by a patron is incorrect, staff should be able to correct the citation directly on the request. Staff also wanted to be able to make notes that were not viewable to the requestor about contact with the requestor or data about the request. In effect, there should be an administrative portion of the form. Staff should also be able to create a request within the manager if an ILL request is made through non-standard means, such as by phone or e-mail.

Staff Side Request Generation

Table 4

Staff Side Request Generation

ILLiad	New System	Old System	
x	*		Once reviewed, requests are automatically imported into OCLC
x	x		Once filled, electronic files can be uploaded to database and e-mailed to patron, along with a copy of citation
x	x		If an item cannot be filled a reason why is explained and e-mailed from manager
?			Electronic files uploaded by staff automatically deleted after 30 days.
<i>* forms can be automatically filled out, but not completely imported</i>			
<i>? items marked with a question mark are unknown</i>			

In the pursuit of efficiency, an ideal manager would automatically import requests into OCLC™ once an item had been reviewed (table 4). Then when it was filled, electronic files would be uploaded into the manager and e-mailed to the patron, along with a copy of the citation. In order to be in compliance with digital copyright standards, the files would then automatically delete after a certain amount of time.

Staff Side Report Generation

Table 5

Staff Side Report Generation

ILLiad	New System	Old System	
x	x	*	Manager will have the ability to automatically generate reports from raw form data

x	x	*	Reports will include graphs and other visual features.
x	x	*	Manager will have the ability to export reports.
x	x		Manager will have ability to gather analytics that will allow staff to make changes to request forms and adjust workflow.
* This is possible with SurveyMonkey, but because of navigation problems and issues with viewing and navigating requests, requests are deleted and staff cannot use report functions.			

The ability to create reports from the data included in the management system is an important function in a management system. The manager should have the ability to automatically generate reports from raw form data, as well as include graphs and other visual features (table 5). Also, the manager should have the ability to export reports or raw data into a Microsoft Excel™ or .csv file. It is important to note that these features are possible with our current form request system (SurveyMonkey™). However, because of navigation problems and issues with viewing and manipulating requests, requests are deleted after requested in OCLC™ or Docline™, therefore RUIILL cannot use the report functions available.

Ideally, the manager would have the ability to gather data that allows the staff to make changes to request forms and adjust workflow. Examples of this data include: how often the form is used, how long it takes the average user to complete a form, how often the form is completed/abandoned, where the form is accessed, the location of the user (on-campus or off-campus) as well as what browser or operating system was used.

Confidentiality of Patron Requests

Table 6
Confidentiality

ILLiad	New System	Old System	
?	x	X	The ability to generate reports with specific information that does not violate patron privacy
?	x	X	The ability to hide patron information when necessary
?	x	X	The ability to hide patron information when necessary
? items marked with a question mark are unknown			

Principle III of the ALA Code of Ethics states that, “ We protect each library user’s right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or transmitted,” (American Library Association, 2008a). This concept of patron confidentiality is upheld by the Interlibrary Loan Code of the United States (American Library Association, 2008b). An ideal ILL system, therefore, should have the ability to redact or delete patron information (table 6). It should also be able to generate reports with only information that does not violate patron privacy.

Key Features of Newly Created System

With the knowledge of what we wanted in an ILL system, the ILL unit began to craft a new, more automated system using Wufoo™. One of the benefits of having a web-based system is that it can be accessed from any computer with Internet access, allowing staff to be able to share the workload without having to share a computer. Other components, outlined below, are key to the new system the ILL unit adopted.

Cost

Although the adapted ILL management system does not have all the features of systems created specifically for ILL, it does have the benefit of being very inexpensive in comparison. ILLiad™ costs from \$2,000 to \$6,000 per year based on library size (You, Lynch, and McCollum 177). RUL would be on the lower end of this annual fee, but it is still not a cost that can be supported by the current budget or budgets in the near future. Besides the annual fee, there is also a onetime onsite training fee and an optional hosting cost. According to the Clio™ website, Clio™ is in the same price range, with a larger

initial purchase price of \$3,500 and then a lower annual rate of \$1,500. This is based on less than 10,000 requests per year and includes training.

Wufoo™, on the other hand is much less expensive, with a tiered pricing model based on potential usage ranging from free- \$200 per month, with a 25% discount for signing up for an annual plan. Rockhurst University Library is on the lower end of the pricing structure, paying in the mid-\$200s annually.

Data Management Grid

The data management grid on Wufoo's™ administrative side makes an ILL system possible (fig. 6). Wufoo™ makes it easy to adjust the grid to be able to view whichever fields desired, then order the requests however desired. There is also a keyword search function, which makes it easy to find duplicate requests or pull up a request by patron name, OCLC™ number, or even the first four letters of the journal.

Recent Entries		BULK ACTIONS		Search		1 - 6 of 6			
#	Article Status	OCLC Number	OCLC Status	Reason for n...	Complete Jo...	Date Created	Last	Name	+
6					Super Cool Jou...	Today 2:21 pm	Smith	Jane	
5	Requested	9999999	Not Received		Big Test Journal	Today 2:20pm	Doe	John	
4	Completed		Received		Academic Libra...	Jun 06, 2012 ...	Theiss	Danielle	
3	Completed	123456	Received		Journal of Rand...	Jun 06, 2012 ...	Kohler	Ellie	
2	Response needed			In lib db	Trade Journal X	Jun 06, 2012 ...	Smith	Jenny	
1	Completed			Available online	Journal of Test	Jun 05, 2012 ...	Kohelr	Ellie	

Fig. 6 Sample Wufoo™ data management grid.

Hidden or Admin-view only entries

Wufoo™ also features hidden or administrative-view only entries allowing staff to create fields for copyright compliance and OCLC™ system request numbers, as well as keep statistical data, such as requests available in the library or cancelled by the patron (fig. 7).

User view

Partial administrative view

Fig. 7. Example of hidden entries

Attach documents

Just as there is an option to upload documents on the public side, this can be done on the staff side as well. By making the document attachment entry field administrative-view only, staff can upload a .PDF file to the ILL entry, and then e-mail the entry to the patron (figs. 8-9). All administrative information is at the bottom of the form, below the citation, and labeled with the heading "Administrative."



Fig. 8. Screenshot of attached document in edit mode.



Fig. 9. Attached document in view mode ready to e-mail

Browser based extensions

Workflow efficiency was also greatly increased by using two browser-based extensions in conjunction with Wufoo™. These extensions are free and only available for download and use with the web browser Google Chrome™. The first extension is called Automato™. Automato™ moves data between browser tabs, web form fields, APIs and external data sources. It helps best with “relatively simple data entry problems, especially ones that deal with inputting tabular data (CSV files, Google Drive™ Spreadsheets, Wufoo™ form entries, etc) into forms fields.” (Saadi). In practical terms, this means that using Wufoo™ or Google Drive™ Spreadsheets, it is easy and fast to automatically fill in web-based forms.

Unfortunately, it doesn't work with OCLC™ request forms, because the forms are not static, and the data has to be mapped each time. But Automato™ does allow ILL staff to create a series of pre-worded messages in a Google Drive™ Spreadsheet and easily input those messages into the Wufoo™ form with a click of the mouse (figs. 10-11).

Another useful extension is called Browser Clipboard™. Browser Clipboard™ is a clipboard for the browser which allows a user to drag or copy several items onto it, then drag those items into any online form, such as an OCLC™ request form. This allows a user to input all request information once without having move back and forth between browser windows in order to copy and paste each item.



Fig. 10. Automato™ data selector

System Comparison

The former system of making requests involved a 10 step process outlined below (fig. 12). The current system has been streamlined down to 6 steps, all paperless, and mostly automated through browser extensions or Wufoo™ itself. Average turnaround times are faster, as problems are able to be addressed as they occur.

Patrons have noticed the new functionality as well. While some were confused about having a document within an e-mail notification and not attached to it, most comments were favorable. Students and faculty both were excited about having a record of items requested, and having a citation of the article along with the .PDF of the article. Patrons also commented on the look of the request form. Most think it looks “better,” “clean,” and less “old-fashioned” than the former form.

Concerns about New System

Although ILL staff is very pleased with the new, more automated and streamlined system, there are some areas that could function better. The first is the staff-side display in the Wufoo™ administrative system. The data-management grid is limited to six viewable entries at a time. Similarly, the size of individual entries in the administrative side is also static.

In addition, the Wufoo™ form builder is not necessarily intuitive. In order to perform higher, more complicated functions, one must make a change, save it, then open the form in another window to view the changes.

Another concern that required a “work-around” is the fact that any email notification sent from Wufoo™ has the same, static e-mail address of no-reply@wufoo.com . Strangely enough, it is easy to enter in an e-mail address, so that if a patron clicks on the static address it delivers the reply to the specified e-mail address, but any messages to patrons should have an alternate e-mail address or directions to reply to the no-reply static address.

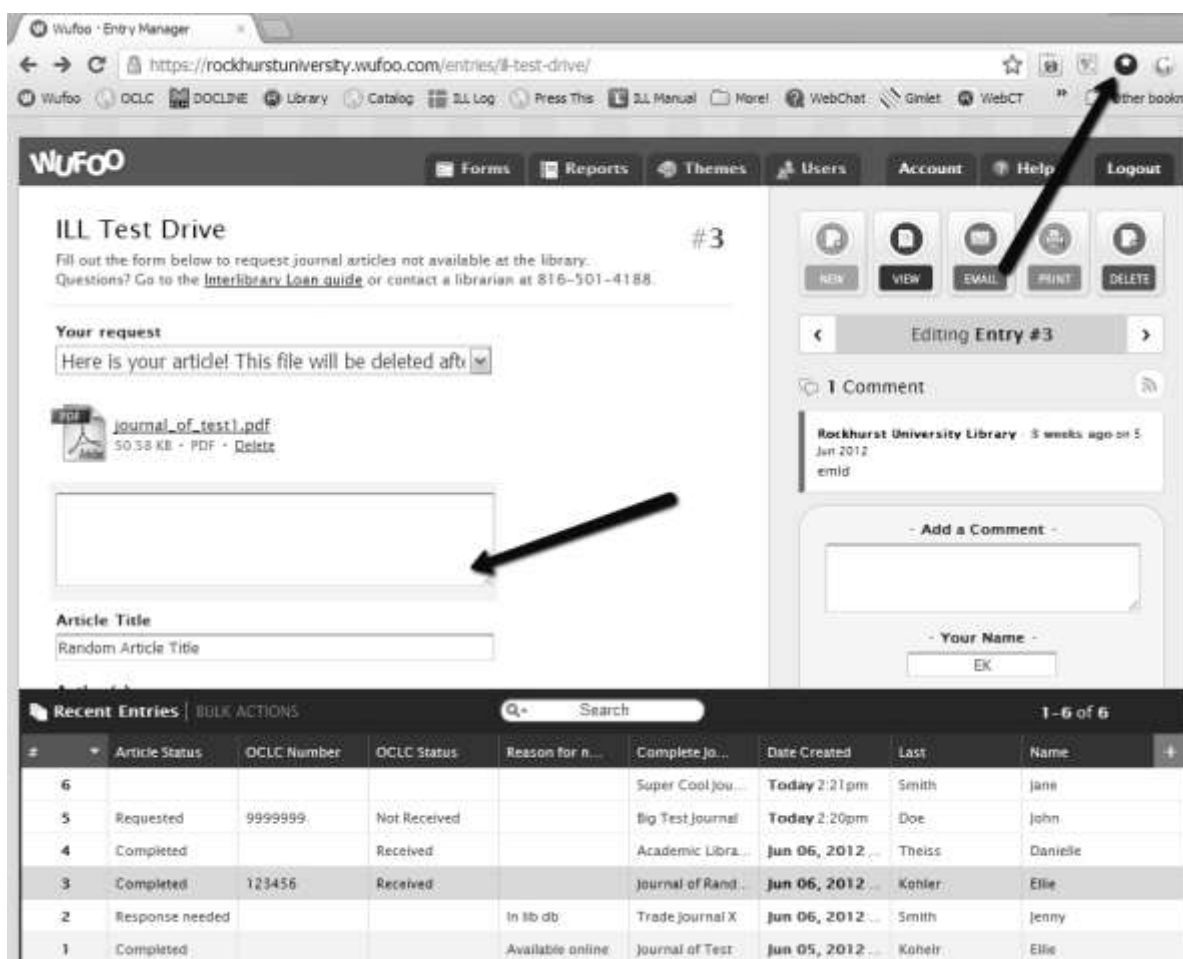


Fig. 11. Automato™ extension used to fill form with message for patron.

Former System	Current System
1. Check system	1. E-mail notification request
2. Print out requests	2. Check catalog and internet <i>auto browser extension</i>
3. Check catalog and internet	3. Request article
4. Request article	4. Drag request info directly into request form
5. Write all request info on printout and file	5. Receive article and attach to request form
6. Receive article	6. Send article from system <i>pre-formulated message</i>
7. Save article to desktop	
8. Find request printout	
9. E-mail article as attachment with message to patron	
10. File request printout	

Fig. 12. System comparison

Other Form Builders

ILL staff looked at other form builders with a data management grid in order to compare price and functionality. Staff did not look at form-only sites, such as CreateSurvey™ or Google Forms™, or companies with data management functionality, but lacking the grid, such as RationalSurvey™ and

Surveymonkey™. The two closest competitors in terms of function and price were Pandaform™ and Icebrg™. Both offer the same services as Wufoo™, the same type of pricing structure based on use. Wufoo™ won out because of the clarity of the website, support offered via online documentation, as well as an active blog and discussion board.

Outcome

ILL staff recommended that the library adopt Wufoo™ for ILL only and on a trial basis, using the minimal, least expensive plan for 2-3 months, until the end of the fiscal year.

Wufoo™ was not only adopted on a trial basis, but library administration increased staff usage of the system to the next level of pricing plan. In May the system was working so well that the library committed to a year subscription, taking advantage of the 25% discount available. The plans are to use Wufoo™ for many other applications within the library, including instruction requests. It will replace Surveymonkey™ completely in July, when the contract with Surveymonkey™ expires.

The ILL unit has adapted to the changes made to the ILL system, and is enthusiastic about the decreased demands on time. It is still making improvements to the new system by attempting to find ways to increase efficiency to an even greater degree. In April of 2012, an updated ILL manual was published online and ILL was integrated into the daily duties of the part time staff, with the Public Services Supervisor overseeing the process. The development of a new system was arduous, but ultimately a worthwhile endeavor.

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Thriving in the E-Resource Amusement Park: Using the ADDIE Instructional Design Model as a Management Framework

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Abstract

Introduction August 2011, Galadriel Chilton accepted a new position as the Electronic Resources Management Librarian at the University of Connecticut (UConn). Like many academic institutions, over half of UConn's collections budget is spent on continuing subscription fees for e-journals, aggregated databases, as well as one time e-purchases with or without annual access fees.

Analogy and a Framework

Like an amusement park's thrilling rides and bright lights, e-resources are a big attraction at academic libraries. However, like a Ferris wheel or Tilt-A-Whirl, e-resources are short-term, expensive engagements with plenty of ups and downs on the rousing ride to information access.

In an effort to not only survive, but thrive in the e-resource management amusement park, Galadriel uses the instructional design model ADDIE to analyze, design, develop and evaluate the e-resource collection and the organization in order to implement a sane, effective, user-centered, and evidence-based practice of managing the University of Connecticut's electronic resources.

Illustration and Examples

This presentation outlines Galadriel's approach and reviews the results of the project's first year:

- Acting on an analysis of the organization to streamline e-resource communication and information distribution,
- Implementing a review and renewal plan, and
- Implementing a customized version of ERMes to facilitate budget and expenditure reports.

Conclusion

Galadriel will conclude this presentation with the pros and cons of using ADDIE so far, future plans, and time for questions and discussion.

Introduction

In August 2011, Galadriel Chilton accepted a new position as the Electronic Resources Management Librarian at the University of Connecticut (UConn). Like many academic institutions, a substantial amount of the collections budget is spent on continuing subscription fees for e-journals, aggregated databases, as well as one time e-purchases with or without annual access fees. Specifically, in FY12, UConn Libraries allocated 88% of their collections budget to e-content.

Like an amusement park's thrilling rides and bright lights, e-resources are a big attraction at academic libraries. However, like a Ferris wheel or Tilt-A-Whirl, e-resources are short-term, expensive engagements with plenty of ups and downs on the rousing ride to information access.

In an effort to not only survive, but thrive in the e-resource management amusement park, Galadriel used the instructional design model ADDIE to analyze, design, develop and evaluate the e-resource collection and to hopefully implement a sane, effective, user-centered, and evidence-based practice of managing the UConn's electronic resources. As of June 2012, implementing such a practice is in progress but is continuously being evaluated and revised. It is a perpetual work in progress.

Defining ADDIE

ADDIE is the acronym for a five-phase instructional design model used as a framework by instructional designers and educational technologists (Learning Theories Knowledgebase): A–Analyze, D–Design, D–Develop, I–Implement, and continuously, E–Evaluation. Figure 1 illustrates ADDIE and shows how evaluation occurs throughout the process and how that once implementation occurs, the cycle may begin again.

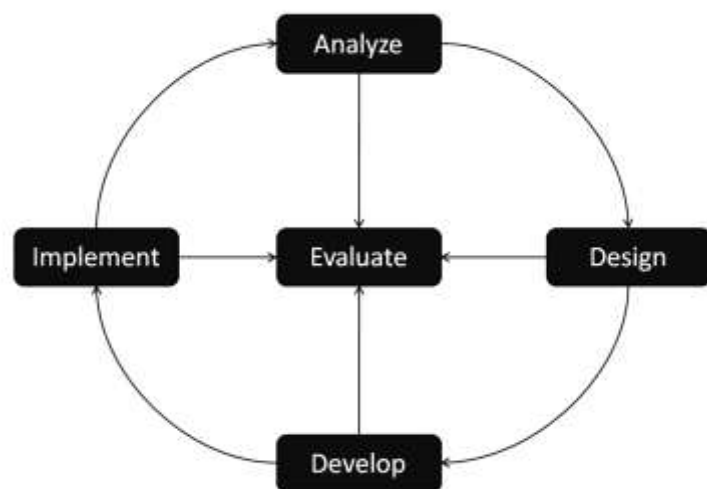


Fig. 1 Illustration of the ADDIE Model for Instructional Design

Why ADDIE as an E-Resource Management Framework?

Managing e-resources is ever-shifting, constantly evolving and chaotic work. Applying a model that consistently calls for analyzing users and the systems used for our work, designing and redesigning our tools, and then stepping back to evaluate our tools and services seems like a possible anchor for the chaos; a hub for the amusement park’s Scrambler cars to spin around instead of hurling off in dangerous trajectories. Table 1 compares using ADDIE for instructional design to a possible application to e-resource management.

Table 1

ADDIE applied to instructional design compared to e-resource management.

Phase	Applied to Instructional Design	Applied to E-Resource Management
A –Analysis of	Audience, learning problem(s) and environment, goals and objectives, delivery options, and timeline.	Existing systems and methods for managing electronic resources, established processes and procedures as well as e-resource audience/users and stakeholders.
D –Design	Systematic design of learning objectives and outcomes as well as prototypes.	Informed by analysis, design of management systems and communication processes.
D –Development	Building system from prototypes.	Building systems and processes.
I –Implementation	System implementation and delivery; instructor training.	Implementation of processes and systems.
E –Evaluation	Formative (ongoing and occurs during each stage of the process) and criteria-based summative evaluation.	Ongoing comparison of management needs, workflow analysis, and feedback from audience/users and stakeholders.

ADDIE + ERM

Analysis of Internal Stakeholders

As Galadriel was new to UConn Libraries, the analysis phase began with reviewing organizational charts and, throughout September 2011, scheduling in-person meetings with library staff such as the directors of regional and special libraries, as well as team leaders for subject teams, cataloging and acquisitions, interlibrary loan, and undergraduate education to name a few. Each of these ten meetings focused on two questions:

1. From your perspective, what is working with e-resource management at UConn?
2. What are the top three e-resource issues that need to be addressed?

From these meetings and additional informal conversations, it was very clear that communication about e-resources was a concern and top issue for everyone. Thus, conclusions from these initial meetings lead to another analysis in the form of a nine-question, online survey on e-resource communication and information preferences: what kinds of information about e-resources did Galadriel's colleagues want and need and how did they wish to receive and retrieve it?

Questions were grouped by the following categories: information preferences (three questions), communication preferences (two questions), and general thoughts about e-resources at UConn (four questions).

Once posted in October 2011, a link to the survey was sent via e-mail to 75 individuals whose work in librarianship focuses on undergraduate education or a subject specialty and liaison activities, as well as information access (i.e. interlibrary loan and cataloging). 29 individuals started the survey and 22 (75%) completed the survey for a 29.3% response rate. Key findings include:

- **Information of Interest**

Over 50% of respondents are especially interested in receiving information about vendor-scheduled resource outages, training materials, usage statistics for e-resources in respondent's discipline, title/content lists for databases, and usage statistics for e-resources in the respondent's team.

- **Vendor-Led E-Resource Training**

Respondents preferred online, anytime training to scheduled onsite training.

- **Database Renewals**

57% of respondents wanted to receive database renewal information 3 months ahead of time rather than 6 or 9 months in advanced.

- **Receiving New and Past E-Resource Information**

When given the option of e-mail, blog post, intranet file/folder, a LibGuide, or respondent-described "other" options, respondents strongly preferred e-mail for receiving new information (74%) while preferences for retrieving past information were tied between one's e-mail or an e-resource LibGuide.

- **E-Resource Functionality: Good and Bad**

Things that respondents perceive are working well when it comes to e-resources include: LibGuides as well as the home-grown A-Z list and e-resource subject pages.

Problematic areas include e-books, the e-journal locator and Open URL resolver, and a sustainable, institution-wide structure for collaborative collection development.

Analysis of Electronic Resource Usage Evaluation

Coinciding with Galadriel's appointment at UConn Libraries was the creation of the Electronic Resource Management Working Group (ERMwg). This group consists of Galadriel and three others. While Galadriel's full time responsibility is managing e-resources, her three colleagues have other responsibilities. ERMwg was "charged with establishing guidelines and structure for the collection and dissemination of vendor-provided electronic resource usage statistics so that such information may be

used by library staff to ‘anticipate and respond to [users] desire for high quality collections and information’ ” (University of Connecticut Libraries Mission). Additionally, UConn Libraries sought to establish an evidence-based approach to reviewing and renewing/canceling e-resource subscriptions.

Thus, review of existing methods for collection and dissemination of vendor-provided usage statistics for e-resources was necessary. UConn Libraries has a subscription to SwetWise’s ScholarlyStats for automated collection and aggregate report generation, and prior to Galadriel’s arrival; a library staff member was regularly collecting select usage statistics from e-resources websites and inputting them into Excel worksheets. However, there was no streamlined or regular disbursement of usage statistics, and it appeared that usage statistics were used primarily for reporting ARL supplementary statistics rather than systematic e-collection review.

Analysis of an E-Resource Management System

Presently, UConn Libraries does not have a fully functioning electronic resource management system (ERMS). A homegrown system referred to as the “Research Database Locator” (RDL) has the front-end functionality of a subject pages and an A-Z list for e-resources. The backend functionality includes resource record entry and maintenance, admin access records, and select license provisions (e.g. interlibrary loan, e-reserves, and course packs).

However, no human talent is assigned to supporting and further developing the system, much of the back end data has not been maintained for three years, and most of the subject pages are now static as subject and undergraduate education librarians develop course-specific LibGuides instead. Additionally, while the existing ERM included nearly all of the data entry fields listed in the DLF ERM Initiative’s Electronic Resource Management System Data Structure, fields for inputting costs are part of the system. Finally, links between backend segments of the RDL were broken.

Design, Development, and Implementation – Communication Strategies

Since receipt and retrieval of information pertaining to all aspects of UConn’s e-resource collection was an extremely important issue, Galadriel worked to address this first. The e-source blog was most vital to her workflow due to abilities to tag, search, and easily retrieve content. However, since over 70% of survey respondents preferred e-mail, Galadriel created a distribution list for e-resource information and also implemented a protocol for e-mail subjects to help her and others quickly identify and retrieve e-resource e-mails.

All subject lines would begin with {E-Resources} and then may or may not include a sub-subject followed by “>” (see fig. 2).

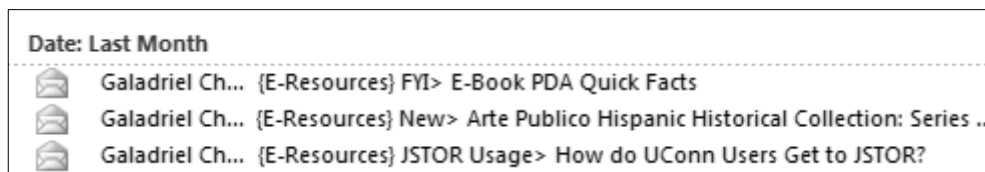


Figure 2. E-mail subject line examples.

Furthermore, Galadriel established color-coded categories for her e-mail inbox so that she could batch e-mails by types and then chunk her time to focus on specific types of work at once (see fig. 3).

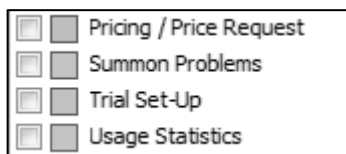


Figure 3. Sample e-mail categories.

For internal document storage, Galadriel began using the library's SharePoint server; however, because some contacts on her distribution list were at UConn's Law and Health Sciences Libraries, and did not have access to this server, distribution of documents occurs via links to the SharePoint server as well as e-mail attachments.

Design, Development, and Implementation – E-Resource Review and Renewal

To create a method for systematically gathering and evaluating data for e-resource renewals (aggregate databases, e-book, and e-journal packages), the ERMwg initiated a plan to distribute the following information to those determining the subscription status for e-resources (e.g. subject librarians and members of Collections Council):

1. Resource Name/Vendor
2. Previous Year's Cost
3. Renewal Cost
4. Renewal Date
5. Percent and Dollar Increase Over Previous Year's Cost
6. Use Normalized by User Population
7. Cost Per Use
8. Use Increase/Decrease Compared to Cost Increase
9. Access/Problem Alerts (Details about known access/outage problems)
10. High Cost Increase Alert (Greater than 10% over previous fiscal year)

In addition, subject librarians or members of Collections Council would evaluate each database by scoring elements such as:

1. Access (Are users able to work successfully in said resource?)
2. Breadth/Audience
3. Uniqueness: Content
4. Uniqueness: Curricular Support
5. Known Alternative or Competing Resources
6. Frequency of Use in Instruction
7. Frequency of Use in Consultations

This plan was informed by Foudy and McManus' article on using a decision grid for e-resource cancelation decisions and Bordeaux and McManus' 2007 presentation at the Electronic Resources and Libraries conference entitled "Collaborative, Criteria-Based Approach for Electronic Resource Purchases and Renewals."

The goal was to begin this process for 156 e-resources in quarterly batches based on renewal date.

Thus the ERMwg created and began populating E-Resource Renewal Reports (see fig. 3) for UConn Libraries' e-resources. Once a template was developed for this report, Galadriel sought feedback from a small group of subject librarians, but no major changes were suggested. Then, she worked to teach Chenwei the process for gathering usage statistics and entering data in the ERRR forms. Chenwei pulled the usage reports, COUNTER compliant when available, for all subscribed databases from the previous fiscal year, and then entered the totals into the report template. The preferred usage types collected were COUNTER full text article requests (or full text downloads), searches, and sessions.

E-Resource Renewal Report				
Resource Name		E-Resource Name (Vendor name)		
Resource Type		Full Text Biographical Narratives		
Subjects	History	Humanities		
Cost	Dollar Increase	% Increase		
FY12 Renewal Cost	\$ 2,987.00	26%		
FY11 Renewal Cost	\$ 2,365.00	17%		
FY10 Renewal Cost	\$ 2,027.00			
Usage				
Collection Period	Usage Count	Usage Type	Usage Count	Usage Type
FY11: Aug. 2010 - Aug. 2011	1025	Searches	446	Full Text Requested
FY10: Aug. 2009 - Aug. 2010	1523	Searches	512	Full Text Requested
User Population				
Definition				
Population Size				
Usage + Cost Calculations (normalized to		FY10	FY11	% increase/decrease
Cost per Search		\$ 1.33	\$ 2.31	73%
Cost per Text View		\$ 3.96	\$ 5.30	34%
Explenation + Analysis				
Due to uncertainty in the target population, and the general insensitivity to the population weighting factor, normalization was not applied.				

Figure 3. Sample E-Resource Renewal Report (ERRR), first iteration.

Design, Development, and Implementation – An Electronic Resource Management System

Upon Galadriel's arrival, there was no current, central location or comprehensive list of e-resource data to put into the existing ERM. Therefore, as an emergency stop-gap measure, she began creating a spreadsheet to capture a simple inventory of UConn Libraries' e-resource collection and cost information with additional plans to implement the MS Access-based ERMes while she determined what ERM would be the best fit for UConn Libraries long-term.

Evaluation – Communication Strategies

While consistent formatting of subject lines and color-coding e-mails helped Galadriel manage the e-mail barrage, and track down e-resource specifics, the reality is that e-mail is continuous and her inbox typically has 200+ e-mails waiting for her attention; a phenomenon that is certainly not unique to e-resource management! However, she has repeatedly received positive feedback from colleagues, and perceives that of the initiatives undertaken so far, that establishing communication strategies and methods of distributing information has been the most successful change since her arrival.

A challenge that remains is that, subject librarians responsible for renewal decisions prefer to receive renewal notices three months prior to a renewal date which may or may not correspond with the renewal/cancellation terms in the license agreement.

Evaluation – E-Resource Renewal

For the first iteration of the E-Resource Renewal Report, Chenwei found the work to be straightforward and the time pressure to be low as there was no need to pull usage reports for all databases at one time. However, there were challenges in that admin credentials were missing or incorrect and that the ease of accessing usage reports and retrieving the needed information varied by vendors. Usage statistics retrieval

was also impacted by vendor's website design, varying report formats, retrieval or delivery options for reports, and the time-period covered.

Other problems included the ERRR's format which made it difficult to compare like resources side by side, and that spot checks between usage statistics retrieved from vendor sites and via ScholarlyStats, revealed repeated and unexplained discrepancies. We also discovered that normalizing usage statistics for discipline-specific databases by perceived user population was extremely time consuming, questionably accurate due to available data, and in the end, impacted the cost-per-use calculations by pennies rather than dollars. Therefore, it was determined that normalization would be an exception rather than regular part of the process.

Furthermore, we determined that a key oversight in the design of the first template was lack of clear space for colleagues to record their renewal decisions. Thus, we created a second e-resource renewal report in which one spreadsheet would include all e-resources under the jurisdiction of each decision-making body: Arts & Humanities, Sciences, Business & Social Sciences, and Collections Council (see figs 4 and 5).

Resource Name	Vendor	FY11 Cost	FY12 Cost	Estimated FY13 Cost	Renewal Month	Usage Count	Usage Type	Cost per Usage
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Fig. 4. E-Resource Renewal Report, second iteration, data column headers

Renew this Resource in FY13?			
Yes	No	Maybe	If "No," name replacement resource + cost if known.

Fig. 5. E-Resource Renewal Report, second iteration, decision column headers

As for the second iteration of the ERRR, Chenwei pulled the usage reports for all the subscribed databases that covered the previous fiscal year, and then entered the totals into the ERRR list. The preferred usage types remain COUNTER statistics for full text article requests (or full text downloads), searches, and sessions. Because some of the work for the second iteration of the ERRR was based on the first, a certain amount of time was saved. Additionally, Chenwei now had eight months of experience with e-resource usage statistics and could now work faster and with more ease.

However, challenges remained in that admin credentials were still missing and it would continue to take time to build an accurate list of the URLs, usernames, and passwords needed. Other challenges included time pressure as our hope had been to distribute ERRR's to teams in June so that decision-making groups could review them and make decisions for the 2013 fiscal year over the summer. Additionally, movement of databases between platforms meant that usage statistics were split which caused confusion and required further analysis and calculation.

Finally, known problems with vendor-generated usage statistics remain which compromises our confidence in the data and reinforces that comparison between resources must be done with caution. Sometimes the numbers in a usage report looked unusually low for a certain period of time, or for a certain usage type, and the accuracy of the report was questionable. Our recommendations to the subject librarians will be to use the data, but to triangulate with other measures of understanding usage and an e-resource's impact.

Because of the challenges faced with retrieving usage statistics and populating the ERRRs, and because the additional e-resource work such licensing new resources and managing e-books and e-book demand-driven acquisition profiles, the survey of subject librarians in which they would evaluate each databases by scoring various elements (e.g. Access, Breadth/Audience, etc.) has not occurred.

Evaluation and Future Plans – An E-Resource Management System

As of June 2012, the need for an ERMS is realized daily! Because UConn Libraries is so large, because users of ERMS data are located at different geographical locations, and because workflow elements for managing e-resources are distributed throughout the organization, a robust but flexible ERMS system is needed. While Galadriel knows ERMes well and may continue to rely on reports, she and William Doering co-developed ERMes for a small to medium institution (Doering), and it does not have the

functionality needed to manage e-resources at UConn Libraries. Therefore, she is in the process of implementing CORAL, the open source ERMS developed at the University of Notre Dame. Of particular interest, is that CORAL is an “Electronic Resources Management System consisting of interoperable modules designed around the core components of managing electronic resources,” and that there is a Manage Resources Module for creating and managing e-resource workflows (CORAL).

Conclusion and Future Plans: ADDIE + ERM = Successes and Failures

After ten months of applying ADDIE to ERM, Galadriel asserts that managing e-resources is still analogous to an amusement park, particularly the House of Mirrors, and that the path between any given elements of the model is often messy and chaotic (see fig. 6).

However, ADDIE does provide a visual and mental framework in which to ground one’s work and efforts for efficient and effective e-resource management. Furthermore, while there are also questions of how well Galadriel implemented and applied the model (i.e. the problems with the first iteration should have been realized in the design and development stages.).

Despite the shortcomings with the e-resource renewal reports, applying the analysis piece of ADDIE to e-resource management was extremely beneficial. Understanding colleagues’ communication and information preferences and how they differed from Galadriel’s preconceived expectations saved time and helped avoid frustrations for all. As a result, Galadriel plans to repeat her two-question meetings in Fall 2012, and again seek answers to:

1. What is working with e-resource management at UConn?
2. What are the top three e-resource issues that need to be addressed?

Additionally, she will ask a third question about how colleagues perceive that past year’s changes in e-resource management have impacted their work.

Overall, grounding her work in a user-centered, evidence-based model was worth the effort despite the challenges and shortcomings as it provided a clear place to begin and helped with decision-making. Using ADDIE also reinforced perceived shortcomings such as the dire need for clear processes, a functioning ERMS, and the need for more people dedicated to managing UConn Libraries’ e-resource collection.

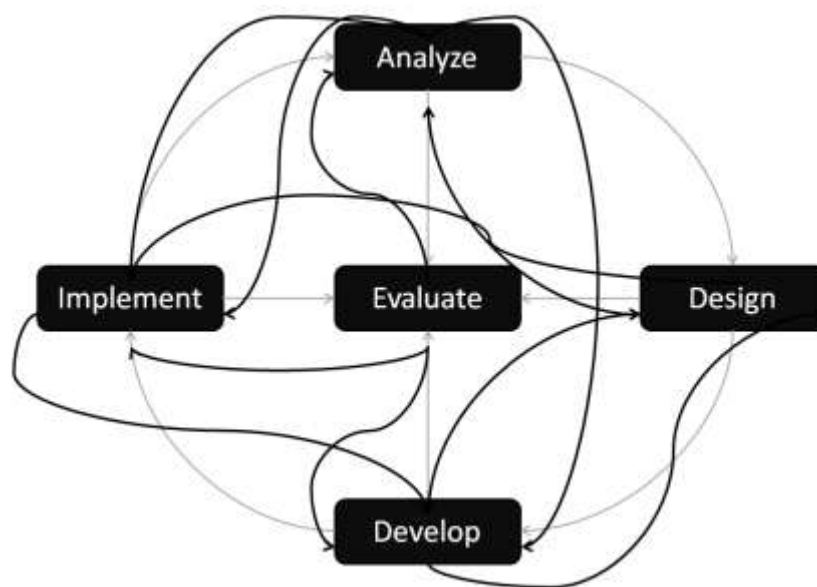


Figure 6. What it really looks like when ADDIE is applied to e-resource management.

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Exposure=Impact: Library Marketing, Promotion and Branding

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Abstract

As a library you have awesome services, unique collections and great staff. Do the majority of students, faculty and administrators know about existing services or new library initiatives and how helpful your staff is? Is there a graphic/image campus members immediately identify as the Library? What is the library synonymous with on campus? What do you WANT the library to be known for on campus? Often librarians do a really good job developing creative services and collections, but do little to brand, market and promote the library. In the competitive budget environment found on most college and university campuses it is vital libraries let students and administrators know about all the valuable resources and services available in the physical and virtual library.

This session will provide practical advice for developing a library brand, including how to conceive a library identity and create attractive, engaging visual graphics useful in branding all things library-related. In addition, we will highlight successful promotion and marketing campaigns, like online contests, free ebook give-aways, use of common social networking platforms, emerging platforms like Pinterest and Google+, QR codes and mobile initiatives successfully used at University of Nebraska Omaha to make Criss Library synonymous with innovation, engagement and technology.

Using Gimlet to Improve Service at the Library

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Abstract

Learn about an easy and inexpensive way to improve service at your desks and help staff better students. Gimlet, an online desk statistics tracker and knowledge base enables you to ‘staff your desk wisely’. Johnson County Community College’s Billington Library implemented this service in the summer of 2011. Librarians from JCCC will discuss how it has helped them better staff their desks, track issues and student assignments, and improve training.

At its core, Gimlet (gimlet.us) is a secure, customizable web service that allows library staff to record both the content and category of questions. Logged questions and answers produce both a large, searchable knowledge base and a valuable quantitative database. Using the knowledge base function, library staff can quickly search the question archives to see how a question has been answered in the past. Library directors can export data to produce valuable reports organized with eight optional facets including patron type, question type, duration, automatic time-stamp, and library staff member. Better still, the service is dirt cheap (\$10 a month after a free trial) and requires almost no training.

Introduction and History

In 2011, Johnson County Community College’s (JCCC) Billington Library was looking for a solution to a common problem at reference desks – how to track and manage question and answer statistics. The library was still using a paper-based system with hash marks for statistics, adding them up manually every day. It was time to move into the twenty-first century. Luckily, a solution presented itself at Library Camp Kansas in July of 2011. The State Library of Kansas did a short presentation on Gimlet, an inexpensive option that was able to track reference statistics as well as create a knowledgebase (Schulz). This was seen as incredibly valuable as the library had two new librarians at the time. The knowledgebase would help these new librarians to better answer patron’s questions about campus as well as help all staff members assist students with tricky assignments.

For previous years, activity at the Reference and Information desks have been recorded with a pencil-and-paper tally system, as presented in figure 1. Horizontally divided by full hour, one would make a series of vertical hash marks each time a question was asked: one in the first area to indicate if the question was in-person or via phone; another in the second area to indicate the type of question being asked; and the third area indicates whether one used print, electronic, or “other” resources in answering the question.

In its most straight-forward interpretation, each question asked would therefore have a total of three hash marks made on the sheet, and each third of each hour column would therefore have an equal number of hash marks. The information one could determine would be the traffic per hour, the types of questions being answered, and the frequency with which print and electronic (and “other”) resources were being used to answer patron questions.

Johnson County Community College

K.C. State

Day	Date														
Tuesday	10/18/11														
	7:30	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Desk			3 	3 	3 	9 	14 	11 	9 	9 	11 	8 		4 	
Phone									1 	1 					
Reference			2 	3 	4 	3 	4 		3 	2 	2 	3 		3 	
Technical			2 	1 		1 	2 				2 			1 	
Direction			1 			2 	5 	3 	4 		5 	3 			
Print				1 		3 	1 	1 			1 				
Electronic			2 	2 	2 	3 	2 	3 	2 	2 	1 	3 		3 	
Other			1 	1 		4 	10 	7 	8 	9 	6 	3 		1 	

all work Nov. 6.

2/27
5
MMA

Will work Nov. 6.

Fig. 1. A typical sheet documenting one day's interactions at one service point.

In its actual implementation, several issues arrived in documenting, interpreting, and reporting interactions. Column thirds did not always add up, librarians citing that they used both print and electronic resources for a particular question. Some would also count each part of a user question as different questions. While that may have led to its own inconsistency, the librarian may or may not have then counted the resource format multiple times (say, for example, if both parts of a question were both answered with the same electronic resource). Thus, the actual number of questions could not be determined. Creating an actual picture of desk activity was impossible.

Also, using the hand-entered hash marks did not reflect a full portrait of our service output. Each sheet represented one day for one service point, and three total service points were documented. In order to convey the usage to the College Board of Trustees, an administrative assistant in the library would manually discern the individual questions, total them up per sheet, then report the month's total. With three service spots over 30 days, this would create about 90 sheets to count a month. The 1,080 sheets contributing to our annual total have already been illustrated to require some interpreting between the three hash zones to find a semi-accurate depiction of question totals. Because of the encumbrance on one's time, the extra gathered data (hours in which questions were fielded, materials used, even types of questions) were not extrapolated.

With a sizeable number of paper statistics sheets already printed, alternative reference methods were discounted in the statistics sheets. Email and chat reference were eventually integrated into the library's services, but without a fast, ready method for documenting those interactions, ad hoc systems were

developed. These systems existed outside of the reporting sheets, and the participation rate in documenting them was much lower.

Also absent is a way to indicate which service point the questions were being fielded from. With no way of distinguishing between Information or Reference desks, the totals reflect an overall use and not a service points' usage in any given data segment. One could also, then, not tell if a particular point was not generating data (for example, if a position were temporarily vacant during a measured time frame).

Literature Review

Many libraries struggle to efficiently measure patron interactions. In 2002, Eric Novotny conducted an extensive survey of reference service statistics and assessment for the Association of Research Libraries. Libraries were very dissatisfied with their reference systems. As a group, the libraries Novotny surveyed rated themselves as "below the minimum performance level" for the analysis and use of reference transaction data and just "above the bare minimum performance level" for recording reference transactions (11). At that time, 99% of libraries used paper tally sheets to record transactions.

Since 2002, many libraries have moved towards electronic statistics tools, and their struggles have been well documented in the literature. In 2006, Texas A&M University Libraries built a web-based statistics system to replace a paper statistics sheet (Smith). The library at the University of Queensland developed LibStats, an open source application to replace their paper statistics sheet in 2008 (Jordan). In 2010, the Zimmerman Library at the University of New Mexico evaluated reference tracking systems on several facets including method of recording, reporting, and time absorbed by recording and determined that an electronic database best met their need (Augilar). Helmke Library at Indiana University conducted a similar study and built their own online statistics database in 2010 as well (Garrison). In January of 2012, Western Washington University published a case study on their transition to LibAnswers, another online reference collection system (Gossett, Stephan, and Marrall).

In their papers, each library mentions the efficiency improvements that come with an electronic system. These libraries also found that the flexibility of online reference statistics systems is a distinct advantage. Traditional reference desk transactions have been declining for over a decade, as libraries move toward new discovery services and reference tools (Murgai). As the University of Richmond library noted in 2004 "desk-centric reference statistics fail to take into account all the modes through which [libraries] currently deliver reference service" (Rettig 7). Online systems can reflect all the ways reference librarians and library staff provide reference service.

Implementation and Training

The Reference and Information desks started their trial of Gimlet in July of 2011, mostly during the evenings and weekends. This time was chosen as these were the slower times at the desk which made it easier to trial a new product before implementing it during the day. Staff members recorded questions both in Gimlet and on paper statistics sheets in the beginning to make sure that data was being recorded and maintained correctly. Other staff members were slowly introduced to Gimlet and trained. In October, the library did a pilot project where all staff members used Gimlet instead of the paper statistics sheets. This went reasonably well and it was decided that the library would make a complete switch in November of 2011.

As Gimlet is easy to use, it only takes minutes to train someone on it. Training staff individually at the desk was found to be the easiest and simplest way to educate everyone on the new software. Handouts were also provided via email and in print as references. When the Gimlet project team decided to expand the use of the tool to other service points in the library, team members held short training sessions so that multiple staff members could be educated at one time.

Both free and fee-based accounts are available in Gimlet. With the free account, one receives access to the knowledgebase functions, is able to have unlimited users of the service and is secured by SSL encryption. The fee-based account allows all of this plus access to the reports, a feature the library has found quite valuable in determining the busiest hours at the desk, the types of questions received and

more. The library started out with a one month trial, and then went for the paid account which is \$120 for the year (“Gimlet”).

There are five fields available in Gimlet – Duration, Question Type, Asked by, Format and Location in addition to spaces for the question and answer, tags, time of question and initials of staff member. In the beginning of the Gimlet implementation, all five fields across the top of the screen were used as it was believed the more information gathered the better. Those five fields are customizable and the project team at the library has made many changes to them since the library started using Gimlet. As the team examined which data the library may actually use to make decisions, the amount of information gathered about each question has been reduced.

As one can see in figure 2, librarians had a choice to make in every field when Gimlet was first implemented at the desk. Librarians would click on the appropriate response in each of the five fields, type out a question and answer if needed, add tags if needed, type out their initials, and then click on save.

The project team also had librarians typing out most of the full questions and answers. While all of this data was interesting, it was very time-consuming at the desk. After looking at the data from July through November, the project team also learned that it did not make sense to collect certain categories of data. Most patrons coming to the Reference and Information desks were students as noted in fig. 3 so taking the time to choose student, faculty/staff, public or unknown from a list did not benefit the library. Also, most questions were in the range of zero to nine minutes as seen in figure 4 so this was another category that was removed. It was decided that unless the library had a real purpose for collecting the data and was going to use it to make a decision, it did not need to be gathered.

The data collection in Gimlet has been streamlined since the first trial and initial roll-out. Figure 5 shows the library’s current interface for the system.

Librarians now only fill out the question and answer fields when something unique or something that another librarian will need to know later comes up. The use of the tags field is now only for when the library is doing a short-term study of an issue. The project team also decided to stop determining if librarians answered reference questions using a print or an online resource as this data can be easily pulled from other sources.

Issues

There were a number of issues that the library came across as this new service at the desk was implemented. Many librarians and staff members felt that Gimlet was too time-consuming. There was also some confusion as to which tags to use, when to type out a question and how to determine the type of question. Simplifying the input form and asking people not to tag questions or type out questions and answers unless absolutely necessary reduced the problems in this area.

Human error occurred when remembering to use Gimlet. It was not unreasonable to predict that occasionally one may forget to open the program when logging into their service point’s computer, or perhaps begin manually keeping written statistics out of habit. Remembering to log statistics was an occasional issue with paper statistics, so it was not an unreasonable assumption this would be encountered with Gimlet. This became less of an issue as people grew accustomed to using electronic documentation.

Without a formal incident report system, the Email Forwarding feature in Gimlet could be of great service when sharing interactions. However, several IT issues prevented messages from being successfully delivered, involving how the JCCC campus recognized the incoming emails. It should be pointed out that this is a campus-specific issue, and not an error with Gimlet itself.

Billington Library [Change name](#) [Sign out](#)

[Add question](#) [Search](#) [Reports](#) [My account](#) [Search](#)

Duration	Question type	Asked by	Format	Location
0-9 minutes	Info/Directional	Student	Walk-up	Reference Desk
10+ minutes	Reference - Online	Faculty/Staff	Phone	Circ/AV/Reserve Des
	Reference - Print	Public	Email	Info Desk
	Tech Support	Unknown	Meebo	2nd Floor
				Roving

[Change stats categories](#)

Question

Answer

Tags [Edit tag list](#)

Space separated - Showing promoted tags: [More?](#)

Assignments:

Time of question **Initials** [Save](#)

Ex: 3:15 pm, 4/15/09 8:03 am

Fig. 2. Original Gimlet interface.

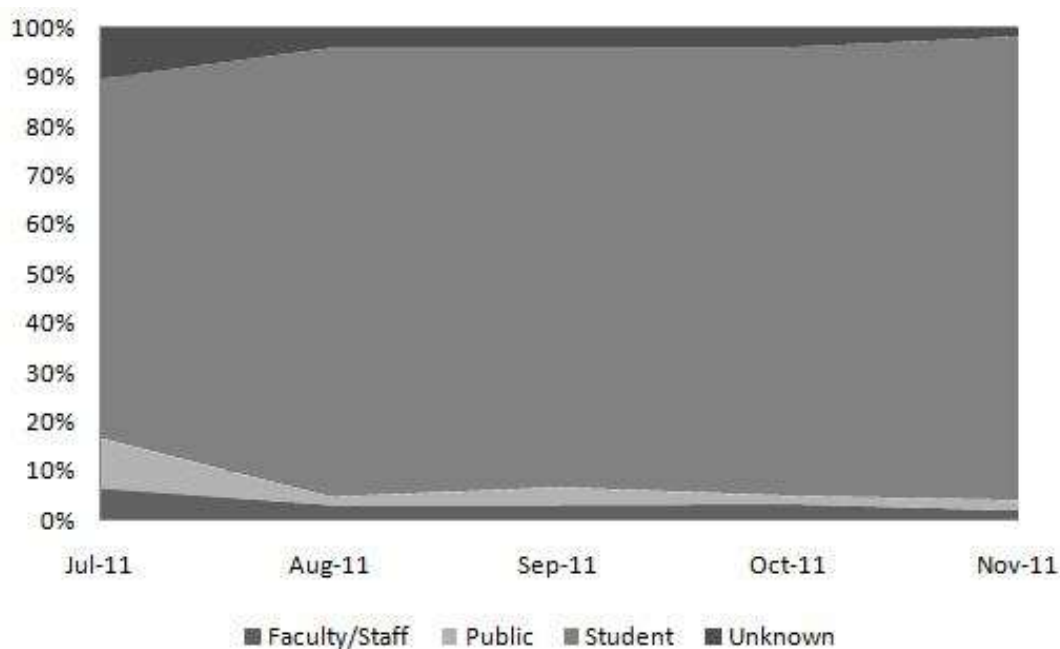


Fig. 3. Interactions by patron type: July - Nov 2011.

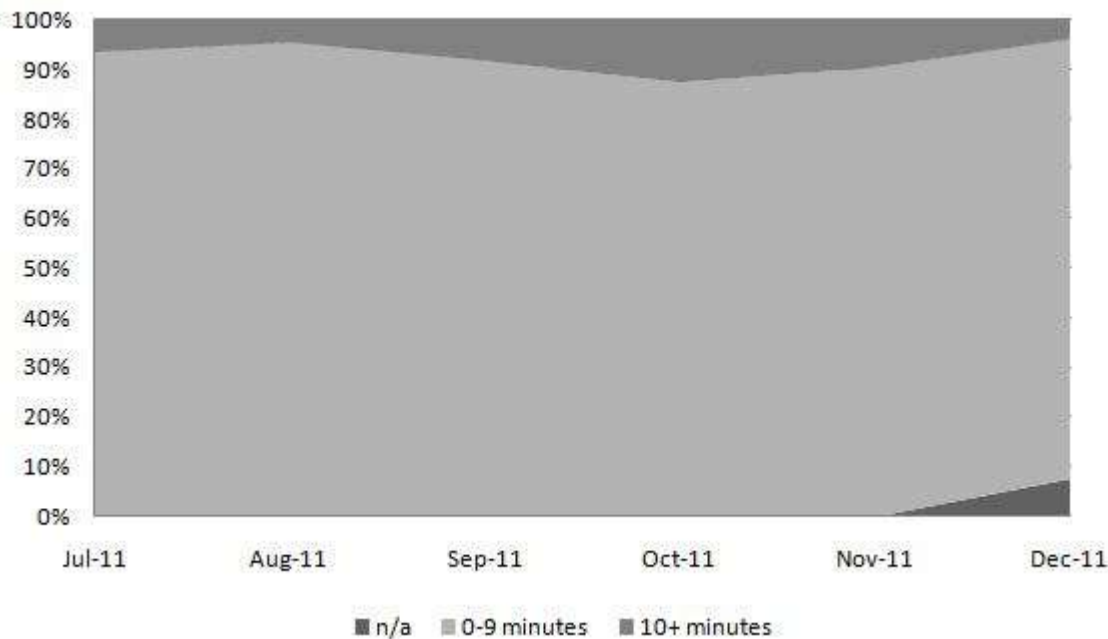


Fig. 4. Interactions by duration: July - Nov 2011.

Fig. 5. Current Gimlet interface.

Buy-in

Feedback on the product was given informally through one-on-one conversations as well as through anonymous surveys. While an arguably sizeable amount of buy-in was produced by letting the period of adjustment play out, legitimate concerns were brought up in collecting feedback. To allow these concerns adequate weight, the use of Gimlet was first introduced on a trial basis, concluding with a survey to collect issues and assess satisfaction with the product and new process.

A primary concern amongst those who would be utilizing Gimlet involved the actual use of information and data collected within Gimlet. A discernible difference between adjusting staffing needs with justifying current employment seemed to exist. By explaining how the library could better track reference

needs and service points, the opportunity to use Gimlet data to expand service became a focus of the implementation. Others addressed time consumption and data loss (sometimes connected) as concerns in moving away from the paper system. An isolated comparison between a month of Gimlet data and that same month the previous year captured in paper static sheets showed nearly identical totals for questions being asked. It also revealed many of the issues in guesstimating the actual number of questions asked when using paper, as well as the limits of the data. Revealing this exposed possibilities to increase types of changes that could be implemented based on the extra information.

When a second, nearly identical survey was given months after Gimlet had become a regular part of on-desk duties, the overall opinion of Gimlet as a useful collection device was rated higher than at the end of the trial. The importance placed on the categories of data collected was higher, and the objections were fewer and perhaps less impassioned than before.

When extending data collecting to the lone 2nd floor service point, it was again implemented on a trial basis, not only allowing users time to become acquainted with the tool, but also allowing the Gimlet implementation team to determine if the data gathered was valuable. Face-to-face conversations with those executing data collection, by a great majority, indicated that it was not an encumbrance to record interactions. The primary issue for those involved was remembering to log-in when arriving at the desk. Given the lack of intrusion for staff and the benefits of recording the interactions, it was determined to be implemented as a permanent measure.

Library Gains due to Gimlet

As indicated before, it was the previous responsibility of a sole employee to add the interactions across hundreds of sheets, and attempt to extrapolate data. With no need to manually calculate these interactions, the work-hours given back to the college justifies the cost of the product, likely a few times over. The data is also instantly more meaningful, with ability to export; view data by segments such as question type, hour, and location; easily compare date segments; and keyword search text and tags used for questions. With agreed-upon tags, the library can track issues (such as recurring technological support needs) and provide a comprehensive picture to appropriate supervisors and departments when communicating needs. The use of the tag “librarian911” has also created an opportunity for librarians to flag questions in which they may not be satisfied in their answers. Given the repetitive nature of questions in academia (as many students have the same assignments), this allows collaboration and preparation in better supporting the reference needs of the campus user base.

By tracking repetitive questions as asked, librarians can address information seeking behaviors and create better paths between patrons and resources. One example of this involves students who would ask for an article their professor wrote, which many understood as being located “in the databases.” The article was actually in the electronic course reserves, which is not accessible via direct URL. Tracking this question reveals dozens of at-desk requests per semester. To simplify the access, librarians were able to move the article into JCCC’s Institutional Repository, give the link to the professor, and simplify the discovery process for students.

A side benefit of collecting and recording interactions is the creation of a knowledgebase. By having an easily searchable collection of questions, employees have documented answers that can be of service for rapid response to patrons. As this continues to be bolstered, the ability to sort by date ensures that it will continue to be useful as resources and services evolve.

Another realized benefit of the move to Gimlet is that it has allowed the library to track issues at the desk in a much more manageable and reportable way. Rather than just relying on subjective reports from librarians and other staff, the library now has objective data that can be used in decision-making. For instance, when students were having problems with printing from ANGEL, the college’s online course management system, the library was able to set up a tag to track how often the problem came up and then share that data with the college’s information services staff. (fig.6)

Gimlet also allows the library to see the types of questions received at the desk and to visualize the ebb and flow of research papers and projects throughout the semester. More intensive assignments tend to be

due around midterms, thus leading to more reference questions at the desk during these times as evidenced in fig. 7.

The Future of Gimlet

As Billington Library's use of Gimlet progresses, the expected future gains have the ability to outweigh its few hindrances. The Email Forwarding continues to be an off and on issue. Some additional statistics, such as bibliographic instruction classes taught, would ideally be streamlined into a single statistical tool. Unfortunately, Gimlet is not always compatible. At the time of submission, the chat reference service, Meebo, is set to be retired on July 11, 2012 ("Meebo Discontinued Products"). As the library looks for alternative chat reference services, an ideal solution would have an option to export directly into Gimlet. This may seem slightly unreasonable, but the added step of re-documenting what will be captured in chat-logs of an eventual replacement product is a duplication that will almost certainly have to be accepted.

However, with added data collected, there are great opportunities to expand and optimize our services. By tracking typically busy and slow times, the library could adjust active on-desk reference support, freeing staff time to implement services like roving reference, off-desk chat-reference monitoring, embedded librarianship or a number of other things that may or may not be reference-specific. Gimlet also will allow staff to track common or confusing issues in the library and help in determining what improvements can be made. The library has changed some of its course reserve procedures and is also looking at signage changes due to issues that have come up in Gimlet.

The only service location currently not collecting information is the front location which houses reserve materials, creates student IDs, and handles circulation service (affectionately called "Megadesk"). Documenting circulations in Gimlet would be time consuming and redundant since statistics can be acquired through our OPAC, and many questions they receive are deferred to the reference desk. However, there are interactions of value to collect, and the library is currently investigating the appropriate workflow to accommodate this.

Information from Gimlet will also play a vital role in the library's ongoing metrics initiative. In the Fall of 2011, in response to JCCC's strategic goal to make "data and evidence...an essential part of our decision-making," Billington Library formed a group to improve and streamline library-wide metrics ("JCCC Strategic Plan").

The library's plan for improving metrics has two parts. The first part is to create a "Dashboard" of key operational metrics. This dashboard will allow librarians, staff, and administration to easily track the progress and business of the library. An example of one JCCC's dashboards is seen in figure 8. The dashboard will allow all library staff at all levels to measure the impact of their work.

Gimlet will also play an important role in the second part of the library's metrics initiative: an ongoing program of one-off data collecting projects targeted towards a particular service, need, or potential change. Each semester, the library will design a research project, collect data, and then use the data to make management recommendations. Library staff are extremely wary of collecting unnecessary, unused data and therefore no project will be undertaken without a specific procedure change in mind.

Potential ideas have already sprung up from all corners of the library including: analyzing the usage of library study rooms, exploring patron usage of streaming versus physical audiovisual material, and counting patron interactions at particular library service desks to maximize staff impact.

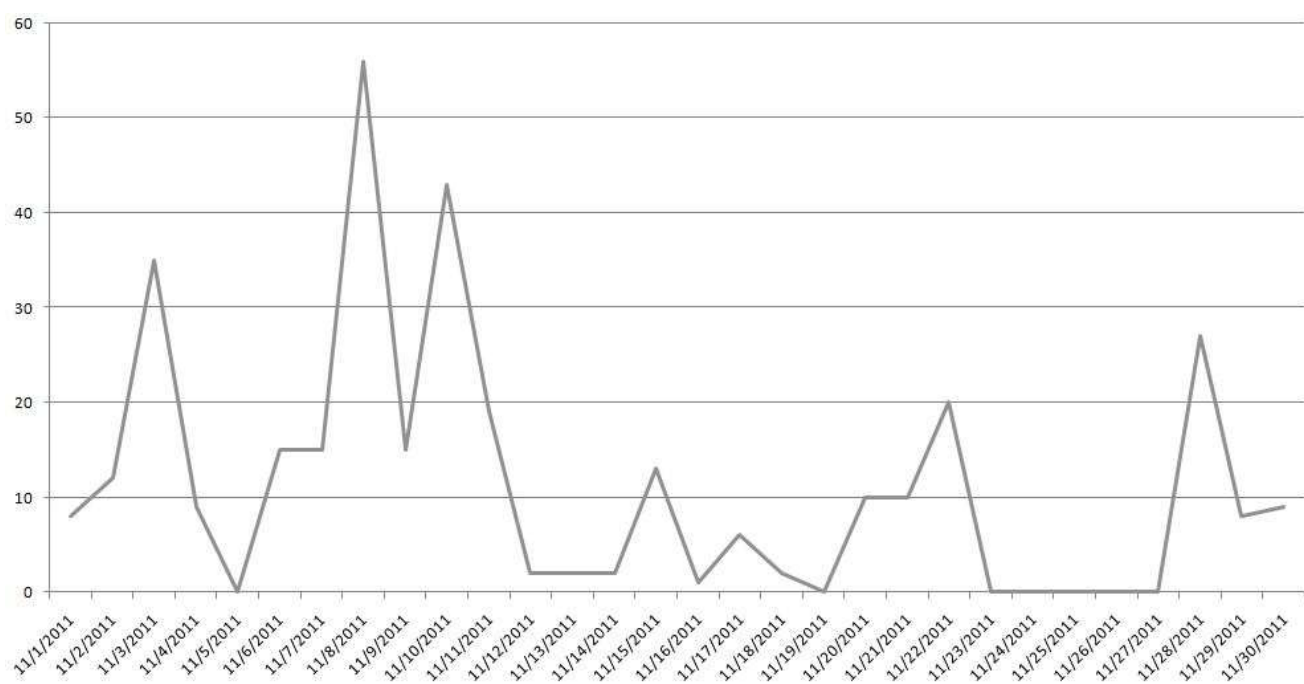


Fig. 6. Interactions tagged with ANGEL printing problem - Nov. 2011.

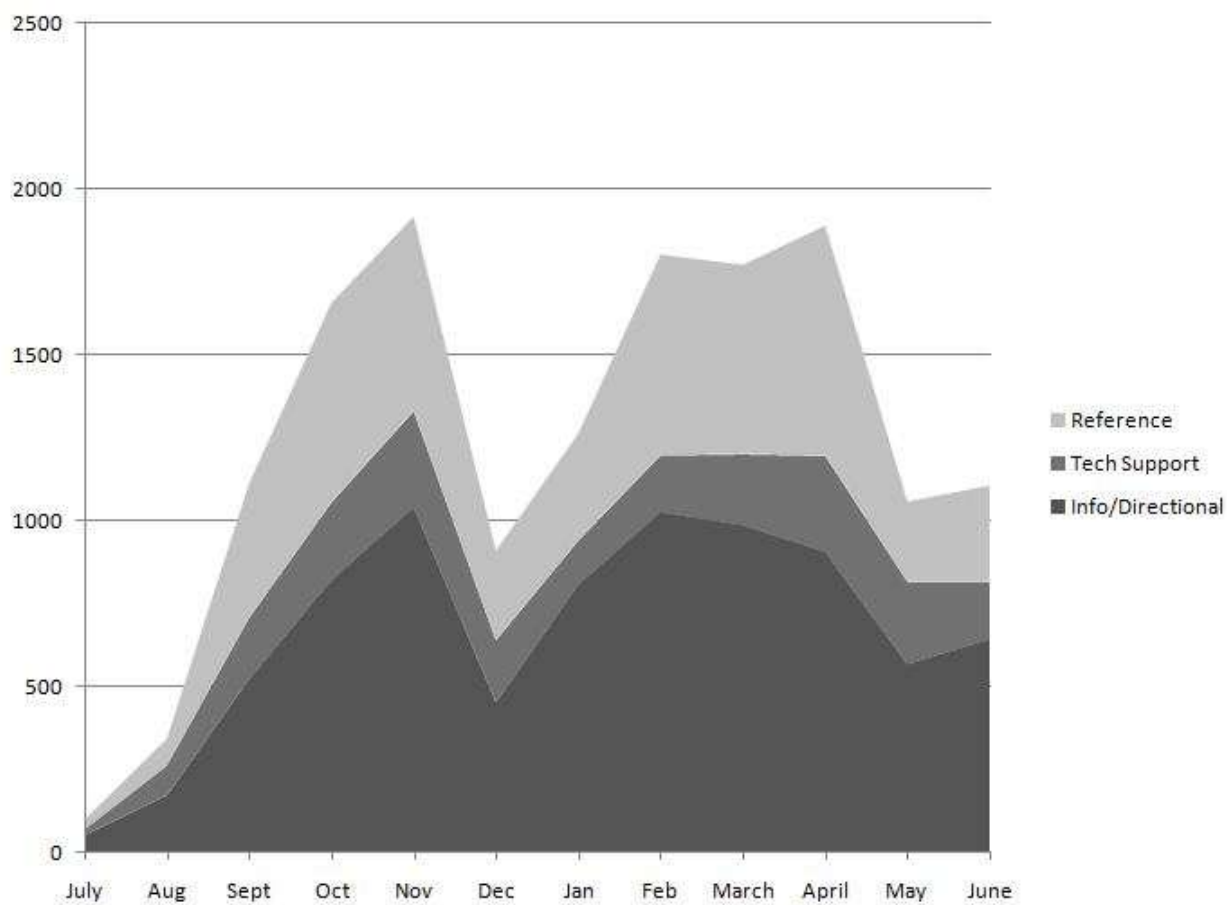


Fig. 7. Interactions by question type: July 2011 - June 2012.

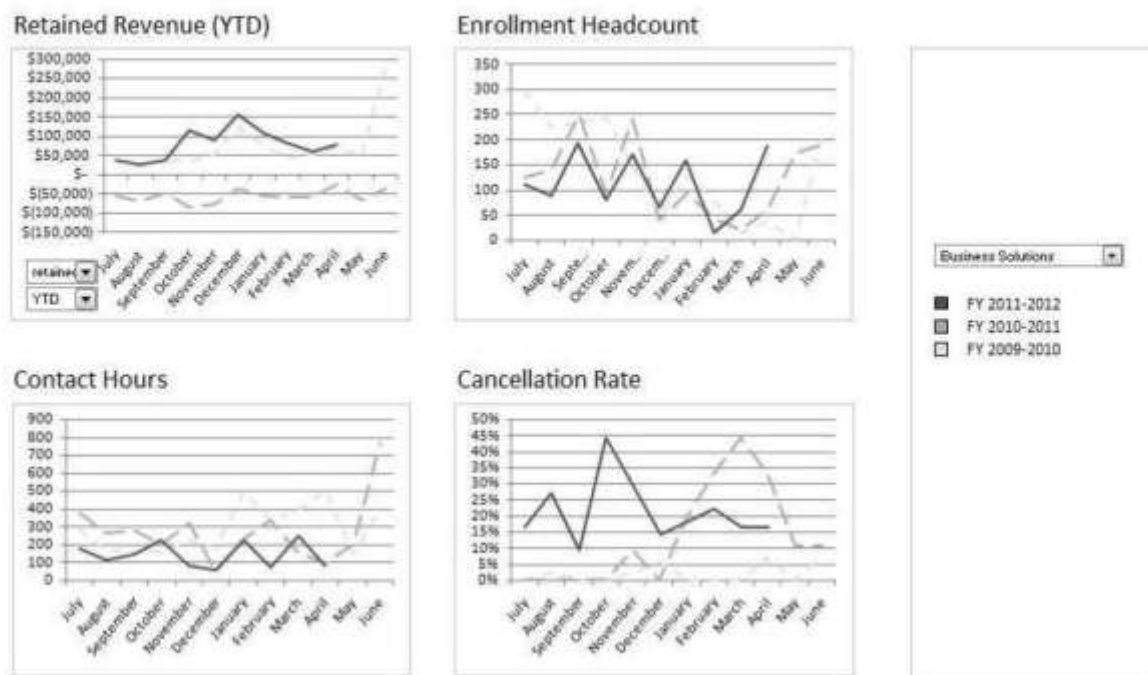


Fig. 8. Example JCCC departmental dashboard. Courtesy of JCCC Office of Institutional Research.

Gimlet's flexibility as a data collecting tool will be extremely valuable in designing these research studies. Gimlet's tags, fields, and reports can be used to collect specific data for these projects, and there will be no need to have to re-design a metrics system for each one.

Library staff hope that through the two-part metrics initiative the library can count fewer statistics and use them more effectively. Ideally, all library metrics will fall into one of the two categories. Either they will appear on the dashboard and be collected regularly or they will be collected temporarily to explore a potential policy or procedure change.

Gimlet is sure to continue to play a decision-making role in the future directions of Billington Library. Data gathered will not only allow the library to optimize current services but also expand and implement new ones. The library looks forward to finding new ways to better serve the students, faculty and staff at Johnson County Community College.

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Tweet Tweet: Using Twitter for Library Marketing and Outreach

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Abstract

One of the hallmarks of staying relevant is meeting the users where they are. Twitter, a 140 character micro-blogging tool, allows libraries to connect with faculty and students in a medium where they naturally spend time.

In 2009, staff at the Washington University in St. Louis Libraries created a Twitter team and started an account. During the past three years, the team has used Twitter as an outreach tool to promote library resources and campus events, answer reference questions, and take suggestions from patrons. The Washington University Libraries' Twitter team has eight members and the responsibility for running the account is spread across the team. The Libraries' Twitter account has steadily gained followers in the Washington University community as a result of follower drives and trivia contests.

The team has also demonstrated that social media can be used as a tool for outreach. In the Fall 2011 semester, two members of the team partnered with an Art History professor and embedded themselves into one of her courses. Additionally, the Twitter team has developed a series of classes for the Washington University community. These classes range from a hands-on class for beginners to a series of classes about practical uses for Twitter like professional development. In 2012, the Team partnered with the University's Office of Alumni and Development to host a Tweet-up, or in-person gathering of Twitter users.

This session addresses all aspects of the logistics of running the Libraries' Twitter account. From coming up with topics to tweet about to gaining new followers to promoting campus events with hashtags, the presenter will give you concrete advice on establishing and sustaining a Twitter presence for your library.

Library (R)Evolution: Organizational Change and Library Effectiveness

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Abstract

Today's academic libraries face the challenge of changing collections, standards, services, spaces, and user needs. Burke (2011) posits that there are two kinds of organizational change, evolutionary and revolutionary. In a rare coincidence of theory and reality, current academic libraries face both breeds of change at once. This presentation outlines the major forces for change and the directions in which they push libraries, and offers specific examples of how strategically managing these changes has impacted recent decisions on hiring and organizational restructuring at one academic library. Finally, this presentation addresses developing best practices in organizational change and effectiveness to help administrators and mid-level library managers not just cope with tumultuous change, but to create an organizational strategy to harness strengths, address weaknesses, and garner participation throughout the library.

Catalyst to Organizational Change: The Digital Revolution

Veaner stated that "In the single generation after World War II academic librarianship experienced more change than in its entire previous history" (17). While technology has an impact on every sector, libraries have been particularly impacted by the digital revolution in terms of workflow and services (Riggs 3). Particular areas of impact include the changing nature of library collections, which impacts both the regular collection and archives and special collections; changing standards in how materials are catalogued and described; changing technology leading to changes in service requests from our faculty and student users; changing conditions for managing licenses and user access to materials, particularly when that access is limited by contract; and the changing information landscape which determines how libraries handle library instruction sessions.

Changing Collections (E-resources and Digital E-resources)

There are two ways in which the library's traditional print collection is morphing due to advances in technology. The first is the adoption of e-books in addition to traditional print monographs. As publishers offer greater variety in the availability of electronic books, libraries are slowly expanding their collections to include these items. The growing pains of the sector are evident in that vendors each have their own individualized platforms, many limit the user's options to print material. Though the item is electronic, most vendors only allow on library user to view one item at a time, among other issues. While users appreciate the ease of accessing books from outside the brick and mortar library space, the back-end complications of providing access to the materials is a non-trivial issue in libraries.

The second substantial change to the academic library's collections is occurring in the area of scholarly journal subscription options. Library collections are increasingly moving toward electronic periodical holdings in the form of database and individual electronic journal subscriptions. Because of the high costs, the percentage of the academic library's collection budget spent on electronic resources is increasing at a dramatic rate. At the University of Connecticut, for instance, over 60% of the library's collection budget was allocated to electronic resources in the 2006 fiscal year (Fuller et al. 287). As database costs continue to rise, libraries struggle with how to arrange their budgets to accommodate those rising costs, finding a good way to balance the desires of researchers for easy access to information with concerns about access versus ownership of materials (Fuseler 34; Kane 58; Kyrillidou 428).

Archives and Special Collections

Archives and special collections are another area where the shift from hard copy to digital resources is having a great impact on library work. Special collections of personal papers and similar materials used to require that scholars request permission to access, then travel to far-flung libraries owning those rare pieces of information, then work with the materials under the watchful eye of the archivist, subject to limited hours and librarians fretting that one might damage the materials. Today, newer digitization and web technologies offer the possibility of preserving the material in new formats which can then be searched by interested parties across the world. Preserving this material in digital format requires that libraries retool their special collections and archives with digitization equipment such as scanners with special software, including optical character recognition so that users can search the text of a particular document. In addition, many academic libraries are taking the opportunity to build digital repositories where such material can be stored and then searched by interested users, requiring additional technological skill development. As one research team noted:

As faculty and other researchers develop research materials and scholarly publications in increasingly complex digital formats, there is a need to collect, preserve, index and distribute them: a time-consuming and expensive chore for individual faculty and their departments, labs, and centers to manage themselves. (Smith et. al)

In addition to skill-building in the technology arena, building an institutional repository requires a great deal of relationship-building with faculty (Mercer, Rosenblum, and Emmett 192). Harvard moved in 2008 to require that faculty retain copyrights to their work so that they could place their publications in an open-access repository, freely available to anyone searching the Web (Albanese and Oder). Princeton University recently followed Harvard's example in September of 2011 (Chang).

Changing Standards: Metadata

The change in library collections to include increasingly electronic holdings has also led to a change in the standards by which information is recorded and organized. The MARC record, invented to organize information and increase what we refer to as "findability," has been expanded to include fields for URLs (necessary to locate Web resources), and is joined by a number of other newly developed standards specific to electronic records, referred to as "metadata." This has changed the face of cataloging, since the skills required for traditional monograph and serials cataloging differ quite a bit from the new standards, which operate under a completely different schema (Cooke and Costigan 10). While libraries still require that some of their staff understand traditional cataloging, they must also make space for new skill sets to be applied to new materials in newer, usually digital, formats.

Changing Services: Streaming and More

Streaming video and other nontraditional materials are also an area where libraries are expanding service to meet demand. For instance, course reserves as a library service used to consist of libraries maintaining paper copies of readings professors wanted their students to have access to during a particular semester. With the advent of multimedia, course reserves is now morphing into a service that provides those same readings online. As professors want students to read materials the library may not own, or to have access to clips of movies, documentaries, audio music or speech files, and more, libraries are scrambling to build the necessary infrastructure to support such requests, which take much more staff intervention, technological infrastructure like servers, and even more time to do user training (Brice 37; Butler 124).

Once again, as these additional services are requested by our users, academic libraries need to consider how (or whether) these services will be integrated into the existing framework they possess to navigate resources. Adding services means requiring staff that understand how to integrate multiple digital services, usually requiring programming and user experience design skill sets.

Access Management

Some materials are allowed to be accessed by the general public, and anyone may use them, whereas other materials (usually electronic journal subscriptions) have contractual licenses requiring that libraries

limit access to only a subset of users – usually students, staff and faculty, when discussing academic libraries. This “back-end” work of dealing with log ins, permissions and authentication, licensing, restricting IP addresses, and other access issues also now falls to someone on the library staff, requiring yet additional skill sets.

Library Instruction Needs

The changing nature of library collections, and the increasing focus on electronic resources does not only affect library staff, but can also have an impact on users. Per the American Library Association’s 2011 *State of America’s Libraries* report:

The increased electronic and remote use of academic libraries challenges not only their physical capabilities but their ability to help students make the best use of rapidly expanding research opportunities. In fact, college students appear to be floundering in information overload, and helping them develop research fluency remains one of the most important roles for academic librarians. Publishers, too, are beginning to realize that they must add value by curating digital information and making it easier to discover. (5)

Thus, not only has the technology changed, but the training needs of library users have changed. Indeed, the academic library today presents not only what was previously termed “bibliographic instruction,” but also sessions on online identity management and protection, privacy, copyright and fair use, information overload management, and the uses of various software and applications including Microsoft Excel and Word programs, SPSS, EndNote, and the Google suite of productivity applications, among others.

Evolutionary and Revolutionary Change

Burke distinguishes between evolutionary and revolutionary change, positing that evolutionary change is gradual, and revolutionary change requires two preconditions, namely an activity that calls attention to the need for change, and actions by a significant competitor (74).

The changes faced by libraries might be seen as either evolutionary change, or revolutionary. On the one hand, none of these technological advances change the fact that what libraries are being asked to do falls within the purview of what libraries have long done: both preserve and provide access to information. On the other hand, the technological changes allowing so many different ways of preservation and access have developed so quickly as to be a revolutionary change in our external environment. While the current direction of more highly technological services likely fall easily within the mission and vision of academic libraries, the manner in which we fulfill that mission and vision is drastically different. The changes academic libraries currently face certainly meet Burke’s two preconditions (77-78): the technology that allows us to provide service changed drastically, necessitating an obvious change in how we process and provide access to information; secondly, online information distribution competitors like Amazon.com and even library vendors are now attempting to circumvent the library’s provision of free access with pay-access, wooing our users and encouraging them to pay again for what we already pay for on their behalf (and often using their funds in the forms of library fees).

Wood, Miller and Knapp noted that while the business world has been grappling with these competitive and highly technological conditions for years, academic libraries are only now engaging in transition tactics and strategies to engage in organizational development and survive (17). The remainder of the paper will discuss how these changes have impacted the University of Tennessee at Chattanooga (UTC) Lupton Library, and the best practices that have resulted from engaging in major change initiatives.

Managing Change at the UTC Library

The UTC Lupton Library serves a student body of approximately 11,000 with a staff of 17 faculty librarians, twelve full time staff, and one library dean. The current context for our work includes all the changes affecting academic libraries at large noted above, with the additional factors that we are involved in an ILS migration from VTLS Virtua to OCLC Worldshare Management Service, and we are involved with planning for a new, much larger library building which we are expected to enter in late summer of

2013. The particular changes this paper focuses on, however, are those directly impacting the structure of our organization.

Org Chart Upheaval Part 1: Replacing Vacant Positions

The first recent reorganization at the UTC Lupton Library was prompted by two resignations happening near the same time in early 2011. Our electronic resources librarian resigned, who resided in the IT department and managed the library's database and journal subscriptions and user access. The other resignation was an Access Services staff member who worked the 10am through 7pm mid-shift. Both spent time on the public service desk and occasionally helped with statistics and minor technology issues.

Instead of requesting a "straight-fill" of vacated positions, whenever an opening occurs our library's dean calls together the five library department heads that make up the Management Council of the library to discuss other options and possibilities. These meetings are announced, open to all who care to attend, and minutes are posted on the library's publicly accessible wiki. In our Management Council discussion, we noted that while we could not do without an electronic resources librarian or a position with similar responsibilities, because the nature of the work is time intensive and because it has been such a growing part of our library's work.

In fact, due to the numerous technological and skill-set pressures detailed earlier in the paper, the group posited that we might need an Electronic Resources and Serials Librarian *and* a new professional position, a Digital Integration Librarian. The Electronic Resources and Serials Librarian would be responsible for setting up and ensuring access to the thousands of journal subscriptions, negotiating with vendors, generating correct proxy strings to preface URLs, running usage assessments and populating the management system that organizes the contract and renewal information for subscriptions. The Digital Integration Librarian would take ownership of the access-provision end of things, making the purchased journal subscriptions accessible in any number of ways including integrating databases more clearly into our catalog and website, and handling access issues, training, the link resolver, and other aspects that directly impacted what our users see when they attempt to access information online.

In addition to the creation of the new position, discussion centered on where these positions should sit in the organization. Historically the electronic resources librarian reported through the IT department. In the new structure, the team decided that it made sense for both the Electronic Resources and Serials Librarian and the Digital Integration Librarian to serve in the Materials Processing department. Because many of the library's services and materials are now electronic, and because we expected that the E-Resources and Serials Librarian would need to closely partner with the Digital Integration Librarian to ensure seamless access to materials through new digital interfaces, this structure made sense. The library reached consensus and decided to recruit for two faculty librarian positions instead of one librarian and one staff position.

The dean increased the number of student worker hours to compensate the Access Services department for the loss of the mid-shift staff member, and every non-librarian staff member in the library was trained for service desk work and contributed a few hours per week to the Access Services department. While not all staff were thrilled, the library now considers this a necessary practice, as it sheds light on user needs for staff who may often be concerned solely with back-end technical services and gives us greater staffing flexibility. It also expanded the library skill sets of staff facing obsolescence as more technical services like monograph cataloging is outsourced or automated, and better prepares us for staffing a larger building with longer hours. Lewis predicted that technological advances would result in "altering or obliterating the traditional boundaries between public and technical services" which certainly does appear to be the case, and one can hardly work in one without some knowledge and occasional use of the other (34).

Successful hires were made for both faculty librarian positions. The Electronic Resources and Serials Librarian joined us in October 2011 and the Digital Integration Librarian joined us in January of 2012. Our most recent work in the library related to these positions has been to clarify the division of labor and the expectations of each position, since the positions are related but separate, working closely together to

ensure that both the back-end technical work gets done but also that the display (or point of information access by users) works as we want it to.

Though Burke noted that higher education organizations are often highly dependent on the external environment in terms of how agile they can be in contributing to organizational change (18), this particular change was relatively insulated, as the decision-making happened within the library and moved easily through the University's administrative channels. This likely occurred because it was not a very public change, nor a controversial one, and only involved two positions for which the Library already had funding.

Org Chart Upheaval Part 2: Massive Structural Changes Ahead

In addition to the aforementioned technology changes, challenges and opportunities, the UTC library is engaged in building a much larger new library scheduled to open in summer 2013 which will have vastly different staffing needs than our current facility. To this end, the library with input from all interested parties in the library at open meetings developed a "wish list" of positions required to properly staff the new building (Lupton Library). Discussions about how to replace vacant positions were held with this list in mind.

The library dean developed a proposal for moving some of the purchase of library materials to the funds collected from the student library fee, freeing recurring library funds for the possibility of hiring between three and five new positions. After meeting with the outgoing and incoming University Provosts, the dean was granted permission to both replace the vacant ILS Administrator and Web Librarian position after that librarian resigned as well as to develop a plan for hiring some of the additional professional and staff positions.

At the time this paper was submitted, the UTC Library had advertised for the one replacement position, prioritized the wish list of new positions, and scheduled meetings to make final decisions on which recruitments to pursue, coordinate the timing of hiring committees for those positions over the next year, and discuss major organizational restructuring due to the addition of so many new members to our relatively small library staff. Shin and Kim point out that "inadequate organizational structure inhibits utilization" of library resources (260). Our intent with the upcoming organizational restructuring is to ensure our users had greater access to materials and better programming, while our staff had the flexibility and structure needed to accomplish library's goals.

Lessons and Best Practices

Fernandez and Pitts note that implementing change in a public organization is often fraught with roadblocks, including conflicting values, influence of public opinion, and competing politics (324). Because the library's managers were included in the reorganization discussion as full participants, and because that inclusion is regular practice, we were able to both initiate and implement the organizational change discussed. Our library held open forums about the need for changing our organizational structure, generated a plan for how to make it happen, built internal support through offering opportunities for comment and feedback, and ensured management's support and commitment by including the dean throughout the discussions. These initiatives match the necessary factors named by Fernandez and Rainey for managing successful organizational change (169-173). These practices reflect the highly democratic and participatory nature of our organization (Elden 52) while also institutionalizing change and generating management support and commitment (Fernandez and Rainey 271).

Lupton Library did not suffer some of the ill consequences of a restructuring intended to completely change the way the organization operates, though the latest reorganization effort, which promises to be our largest to date, has yet to be completed. This is largely due to an organizational structure intended to be flexible, adaptable, and able to quickly respond to changes in our internal and external environments, as well as institutionalized communication channels including (but not limited to) open meetings, regular updates from the dean via email, and a publicly accessible wiki where all meeting minutes are posted. Slow response time and barriers to cross-functional teams working in an agile manner have been cited in the library organizational development literature as the largest hurdles to success (Moran, 2001;

Shaughnessy, 1996; Shin and Kim, 2002). Our organizational structure and decision-making processes appear to have insulated the library from those ill effects, though the impact on operational agility and flexibility caused by increasing our personnel by nearly 17% is not yet known.

On a final nod to organizational effectiveness, Kaarst-Brown et al posit that libraries can leverage organizational culture as a resource when conducting recruitments and to generally improve the visibility and functioning of an organization (48), and that appears to have been true and worked in our favor. For the first organizational change, our library was open with the candidates about the process that generated the two different, but closely-related, positions. Most of the candidates invited for interviews remarked on the culture of transparency and innovation, noting in particular the practice of maintaining budget, committee, building planning, and administrative documents on a publicly accessible wiki site.

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Caught in the Act

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Abstract

Trainers do it all the time – record athletes as they practice and compete in order to improve performance through self-observation, coaching, and observing the performance of other athletes. Why not incorporate this model into classroom instruction? This is exactly what happened when a Librarian volunteered for a video observation project created by a Dean for faculty members. As the Dean developed a new understanding of the challenges inherent in one-shot instruction, the Librarian improved learning outcomes in instructional sessions. In this session the team will discuss how they collaborated and what they learned.

Teaching is often a closed process. We do our best, make connections with other instructors, and try to keep current with best practices. The Video Observation Project was created to make the teaching process more transparent. After classes were recorded links were embedded in a course shell where instructors could watch their own teaching and watch their colleagues in action. From a Librarian's perspective, this was a great opportunity not only for professional development, but also to have the Dean observe the unique challenges of dropping in to someone else's classroom for an hour.

After the taping both the Librarian and the Dean filled out assessment forms and they met to review their findings. They worked together, observing and discussing best practices from the video library, to craft some solutions to the challenges of one shot instruction. As a result, the Librarian began redesigning her workshops. She moved from a reliance on technology (clickers) to an activity based learning environment. She also created a more student focused classroom and incorporated assessment into the mix. In this workshop the team will discuss their processes and video clips will be used to illustrate outcomes.

Giving the Users What They Want: Is Patron-Driven Acquisitions The Answer?

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Abstract

Rather than trying to guess which books patrons will want to use, librarians are experimenting with patron-driven acquisitions – loading bibliographic records for e-books into the catalog and only paying when a patron clicks through to the text. The goal is to avoid purchasing books that never get used and to purchase only those books that most closely match user needs. While many PDA projects limit the number of records loaded by using an approval profile, UMKC decided to work with their book vendor YBP and with e-book aggregator EBL to load as many records as possible into the catalog, thus allowing the patron the widest choice in selecting books for purchase or for short-term loans. The project was started in Spring of 2011, and this presentation will offer a preliminary analysis of spending and usage patterns, as well as information about how to set up patron-driven acquisitions in your own library.

Streaming Video Acquisitions: Vendors, Models and Workflows

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Abstract

As information resources continue to move to digital formats, it is important to investigate acquisitions options and workflows related to the purchase and access of content. Both students and faculty of academic institutions have readily accepted the transition of videos from physical disk to streaming media and academic libraries are responding to this shift. Recently, publishers and content vendors have introduced a flood of streaming videos to the market and each vendor seems to have a unique way of providing their content to libraries.

This presentation will examine the vendors that have entered the streaming video market and are of interest to academic libraries, and explore streaming video acquisitions models and workflows when working with those vendors. The related consequences to other areas of technical services will be touched on briefly including licensing and distance education implications as well as cataloging and tracking the usage of streaming videos. The approach that the University of Nebraska at Omaha has taken to acquire streaming videos will be explained.

Introduction

Academic libraries have been collecting and loaning media for many years. With the advent of the Internet, increasing data transfer speeds, and the growth of the demand for electronic resources, the market for streaming media has exploded over the past few years. Many publishers and library vendors have entered the field and are offering up their exclusive content via this new format. In response, libraries are growing their collections of streaming video resources. There are multiple purchase options for collecting these materials such as subscription plans, packages, title-by-title selection, and pay on demand, among others. There are also a variety of library departments and personnel that might play a part in the steps to license, acquire, create access, review, and renew these materials. With so much at stake, the task of providing quality resources to meet the needs of library users at the time of their need, there is a growing need to streamline the process of streaming video acquisitions.

Streaming Video Vendors

The streaming video vendors active on the market today range from independent publishers to major players and everything in between. Some have established themselves in the market years ago (Films Media Group), while others are new but are marketing hard to become the academic streaming video vendor of choice (Alexander Street Press). The American Library Association (ALA) has a helpful, but somewhat outdated, table of streaming video vendors including web addresses, audiences, and license information. The grid, compiled by Monique Threatt in 2010, includes over 60 vendors and can be viewed on ALA's web page.

Missing from the grid are any new players and many small, niche vendors. A specific vendor that should be added to the grid is Swank Motion Pictures' Digital Campus. This vendor is one of the very few that offers streaming Hollywood films for academic purpose. Also missing from the grid are markers for Shared Electronic Resource Understanding (SERU) license participants. If your library is a SERU participant, both Ambrose Video and INTELECOM Intelligent Telecommunications are streaming video vendors that offer a SERU license. Additionally, it is likely that, over time, individual institutions will be creating their own locally valuable streaming media, such as video from academic lecture series or

recorded administrative meetings. Therefore, potentially every higher learning organization, corporation, governmental unit, and non-profit organization could become streaming video vendors.

Acquisition Models

Each vendor that you encounter is likely to have a different purchasing model. Here are a few that have been encountered along with the vendor that offers them.

The major players today are vendors that offer subscriptions to their entire catalog or packages within their catalog. Those offering this model include VAST from Alexander Street Press, Safari, and Ambrose Video, just to name a few. If your library is more interested in making title-by-title purchases of streaming video in multi-year licenses, work with vendors such as Films Media Group and New Day Films. Some vendors have strict authentication rules and make their resources available only via course management sites. Once such vendor is Digital Campus from Swank Motion Pictures, a relative newcomer to the market. Because Digital Campus has Partnerships with production companies that include Disney, Paramount Pictures, and others, the popularity of this vendor is sure to grow quickly within the academic market.

Some vendors offer a mixture of models. PBS is a good example of this type. They have freely available streaming video to which libraries can create access just by adding the URL to their catalogs. The videos available this way, however, are usually only available for a limited time. So, PBS has set up an additional option for educational institutions. Educators who visit PBS' Teacher Shop can gain access to a wide variety of PBS programming which is charged per hour of content viewed. Additionally, educators can purchase streaming rights and host the programs on their own servers. The more acquisition options that are made available to institutions wishing to purchase streaming videos, the more likely those institutions are to find a model that works for their needs.

Beware of some streaming video vendors which have content for sale but only allow for individual use. O'Reilly Media is one of those vendors. Upon investigating institutional acquisitions options with O'Reilly, Crandell indicated "Unfortunately, [O'Reilly] do[es] not have a pricing model for libraries right now. Our Safari Books Online service offers our streaming videos but you would need to contact ProQuest which is Safari's distributor for the education market." And Safari only offers a subscription model. Thus, if a library is interested in just one title from the O'Reilly or Safari catalog, a subscription to an entire package of resources is the only way to gain multi-user access to it.

Workflow Models

With the growth in popularity of the format, and the variety of vendors and acquisitions models, it is vital to create a dynamic workflow which is flexible enough to adapt to those variances. Libraries will also want to explore the many models that are being used to find the best fit for their communities.

Criss Library has a handful of streaming videos already in its collection, but most are for one subject area and are from a single vendor with whom they have an ongoing license. It was when other subject librarians began making requests to purchase streaming videos from varying vendors that the acquisitions department realized a structured process needed to be put in place. One problem discovered was that the monograph acquisitions assistant rarely needed to deal with licensed material and therefore did not know how to proceed with the purchase when a license was required. When these purchase requests came to her from the collection development librarian, she would send them right back to him to investigate the licensing, thus slowing the process.

Another problem was that the administration of access was being handled by both the monograph acquisitions assistant and a subject librarian, each having their own accounts providing access to different videos. There was no account that provided full access to all the videos which had been purchased. Then, the process of turning on the access and updating the catalog records with the link was undocumented and, therefore, unclear to the acquisitions department staff.

The work of creating a structured workflow began with identifying all the players in the process and interviewing them individually to determine their roles in the process and their methods of accomplishing their tasks. From that, it was determined which processes could be handled within the acquisitions department and which needed to be handled by other library departments. The smooth transition between these departments can only be accomplished through open communication and an understanding of the part each will play in the overall process.

Once knowledge of the steps and people involved in the overall process is gained, a draft process flowchart was drawn up (Fig. 1). It identified the beginning of the acquisitions department involvement, clarified which questions needed to be asked, the processes that the acquisitions department needed to accomplish, as well as when the workflow needed to transfer to another department.

One result the Criss Library is seeing from the implementation of this workflow is the on-time notification of pending streaming video expiration. No longer will there be expired titles in the active library catalog because the subject specialists and acquisitions staff members are being warned in advance of the expiration date. This gives the librarian time to decide if s/he would like the streaming video to be renewed, canceled, or purchased in another format. This enhances the quality of the records in the catalog.

Another result is the streamlining of the process, reducing processing time and improving the transition of the workflow between library departments. Improved efficiency is a goal for which all libraries are striving.

To get to the finalized (for now) workflow, begin by identifying the bottlenecks or missing links in the current workflow. Next, communicate with the players, gathering their insight, expectations, and suggestions. Standardize the process while recognizing that each purchase is different. However, the overall workflow can be handled just like the purchase before. Wrap it all up with communication again, this time sharing the planned process with those involved. Be a participant in knowledge sharing across departments.

If your library is utilizing an electronic resource management system in its full capacity, there is likely already a workflow in place for acquiring new electronic resources. However, adaptations will need to be made to fit the intricacies of streaming video models. For example, multi-year, expiring leases may want to be modeled after database trials.

Other Considerations

If an academic institution is hoping to make streaming video available on course management sites and distance education course, make sure to read the fine print when purchasing resources. Public performance rights do not grant duplication rights or streaming rights. There are separate licenses granting these uses. Therefore, the purchase of a DVD with public performance rights does not grant your institution the right to store the content on a server for streaming purposes, even if the content is protected behind user authentication. Ensure that the streaming video purchase being made is available for institutional use. As R-T et al. point out, the format does not require libraries to grow their technology skills or equipment and the licensing process is nearly identical to print-based electronic resource licensing.

An essential component in providing access to streaming videos through the library catalog is adding an 856 field to the bibliographic record with the link to the video. Another step to consider is adding local subject heading, genre heading, or note to better locate the records after the cataloging is complete. The best method will be determined at each library depending of the circumstances at play. As Boyer explains, “At the University of Nebraska at Omaha, the 655 field is not indexed so the decision was made to include a 500 note for streaming video so that it could be searched in the keyword index” (202).

Tracking usage of streaming video is important especially when the library is leasing a video for a few years. Track the usage and determine at the end of the lease whether a renewal or purchase is the best action. If the video is rarely viewed, let the license expire and remove the resource from the catalog.

Adding mobile functionality to streaming video tools and platforms will be a challenge in the near future. Alexander Street Press has already adapted their products for use on mobile devices and other vendors will need to follow suit.

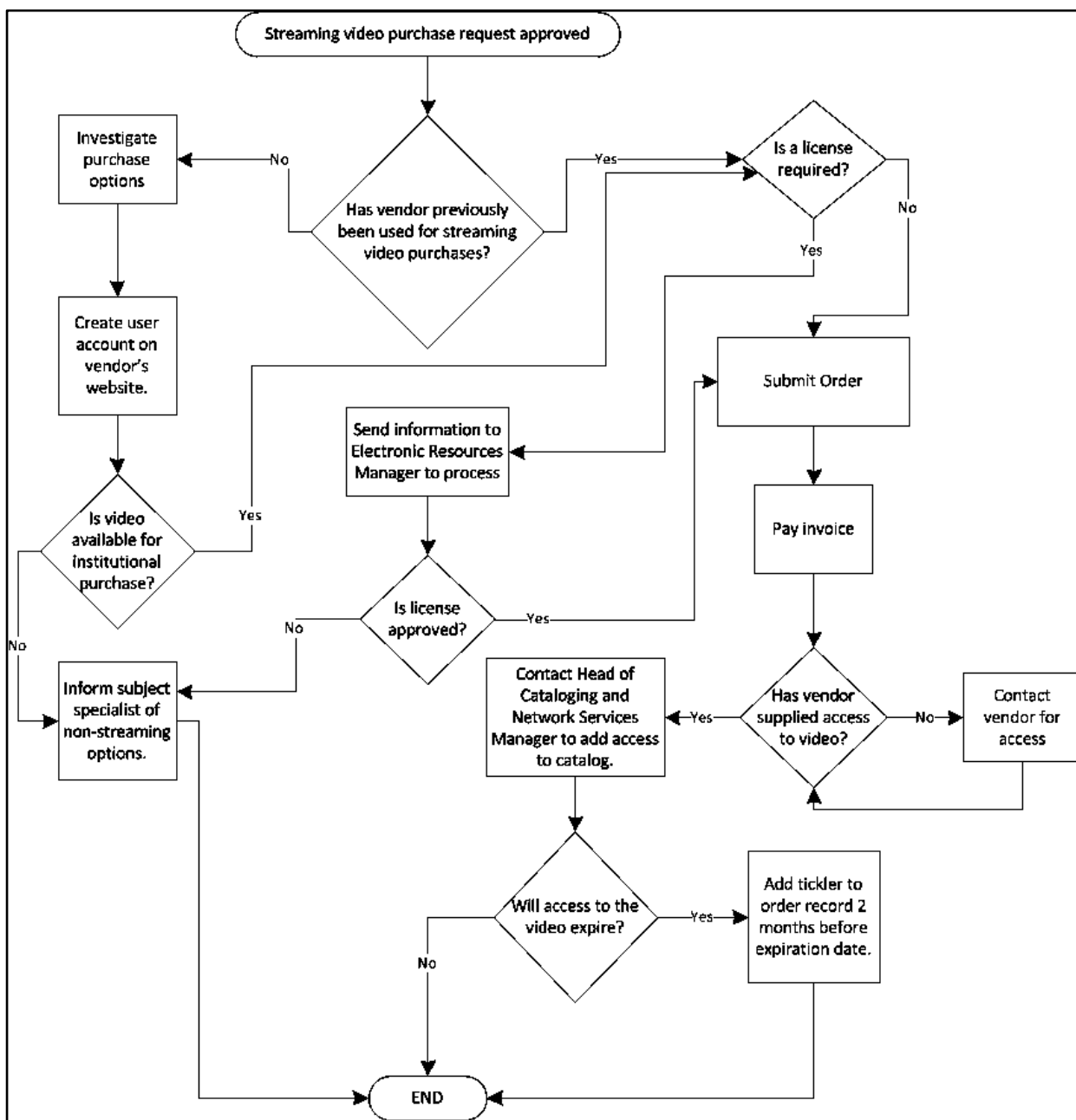


Fig. 1 Streaming video acquisition workflow.

Conclusion

If a library is looking to either expand their use of streaming videos or just starting out collecting resources in the format, before doing so it is important to get to know the market. Research the vendors and publishers providing this content, and match their library sales models to the library community's needs. Decide on the library staff players and create a workflow. Aim for quality, efficiency, standardization and communication between steps. There is a big streaming world out there waiting to be

explored. But do not expect to purchase once and have the process down. Instead, expect to adapt your workflow frequently, and make room for future growth.

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Rediscovering Relevance for the Science & Engineering Library

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Abstract

The DeLaMare Library was the "beautiful library", with impeccable collections, located in a historic building at the crossroads of the departments it serves on the university campus, and had undergone a complete retrofit and remodel in 1997. Yet 12 years later, students were only occasionally seen browsing its collections, with faculty only dropping by to put materials on course reserve. This paper is a case study of how the library, after in-depth analysis of holdings and close observation of end-user patterns, made seemingly radical changes that have resulted in an over five-fold increase in gate count in less than two years. Rather than a quiet repository of books, the library has become a hotbed of learning and knowledge creation, with students and faculty driving the need to more than double the number of computer workstations and library open hours. Details shared will include numerous low to no-cost ideas that have proven effective in front-line advocacy for the Science & Engineering Library, and enabled the library to meet the increased demand without corresponding increases in library staff.

Introduction

In the spring of 2010, the DeLaMare Library on the campus of the University of Nevada, Reno (UNR), had a problem: despite scrupulous attention to maintenance of library collections, and the best intentions of library staff, the library as place had become largely irrelevant to its intended community of researchers in the sciences and engineering. Although the collections of the library saw regular use, the customers of the library rarely lingered within its carefully appointed spaces, with students hurriedly dropping off returns or checking out needed materials and faculty pausing only long enough to drop off course reserve materials. Rather than a dynamic center of learning and research for its communities, the library had become essentially an underutilized repository of books—beautiful, but a warehouse nonetheless.

Background

Located in the historic Mackay Mines building at the north end of the campus Quad, the DeLaMare Library was formed by the merger of the collections of formerly separate library branches of Physical Sciences, Engineering, and the Ansari Map Library with those of the Mines Library. Completed in 1997, the retrofit of the Mackay Mines building included the construction and incorporation of basement and mezzanine levels into a library space with 22,500 square feet of floor space. The combined collections of the library were housed across the four floors of the library.

Researching the Problem

In light of the library's nearly ideal location in terms of centrality and physical proximity, only a few hundred feet from the departments served, and given faculty and student enrollments numbering in excess of 4,000, the facility seemed underutilized. Review of historical counts of foot traffic in the library over the preceding five years showed a stable use pattern, neither increasing nor decreasing despite significant enrollment growth at the university.

Dimensions of the problem were explored by performing extensive observations in the library from March 1, 2010, through the end of the Spring 2010 semester. Specific attention was paid to the allocation of floor space, the use of the library as space, and the usage of separate collections. Areas throughout the library were segmented by function, with twice-hourly head counts of persons in the library, excluding library staff and student workers, taken to establish baseline conditions. Through the observation period a maximum of thirty-five persons were observed to be simultaneously using the library, with an average of nineteen and a median of twenty-two.

Physical Configuration

Initial observations identified a complete lack of student collaboration rooms in the library. The bulk of potential collaborative study space was limited to the entry level of the library. Although nearly 4,500 square feet of space was available, its effective use was potentially limited by the prominently displayed "No Food or Drink" and "Quiet Area" signs posted both at the tables and in areas throughout the library. Further, essentially half of the physical space of the library on the entry-level was closed to customers of the library (see fig. 1), dedicated to Circulation desk functions, housing of the Permanent Reserve collection, and private offices of library staff.

A total of thirty-nine computer workstations available for customer use, divided between the entry level and each of the other floors of the library. During the observation period it was commonplace to observe multiple students queued to print out documents on the single black and white laser printer available for use in the library. Although photocopy machines were available on the entry level and two of the other floors, students using computer workstations on other floors were required to leave their work area to release prints on the entry level. Similarly inconvenient, the four single capacity restrooms – two designated for females, two for males – were located on the basement and mezzanine levels, with no restrooms available on the other floors. Despite relatively low numbers of simultaneous library users in the library, queues were observed forming with customers waiting in line to use a restroom. This problem would be exacerbated by expanded usage of the library.

Study carrels lined walls throughout the library (see fig. 2), seemingly pushed up against the walls by book stacks, raising the seating capacity to 200. Nevertheless, the carrels were infrequently observed to be in use. Including the shelves of the Reference collection lining the walls of the entry level of the library, floor space throughout was occupied by the primary feature of the library, over fifteen thousand shelf-feet of open book stacks filling much of the basement, first, and third floors. The map cases housing nearly 200,000 printed maps of the Ansari Map Library occupied the bulk of the second floor. Although nearly half of the linear shelf-feet available existed in the form of compact shelving, housing of the print collections alone accounted for over 80% of the available space in the facility.

Collections Usage

Usage reports were generated (see table 1) from the library's online public access catalog for each of the eleven distinct collections housed within the library. Time periods were selected to reflect current, near-term, and longer-term use: year-to-date, 1) from January 1, 2010, 2) from January 1, 2005, and 3) from January 1, 2010. Metrics were chosen to reflect overall density of use and implied return on investment of library space, enabling evaluation in terms of "cost" (space) to "benefit" (use). The reported value of "% Titles Active" is derived by summing in-house uses with circulations and dividing by the total number of items in the collection to arrive at an efficiency of use, which can then be contrasted with the expense of "Shelf-Feet Consumed".

The relatively high level of activity in the Thesis collection was an unexpected finding, given the collection was housed in a remote corner on the third floor of the library, relatively shielded from chance discovery. Also notable was the precipitous drop in use of the Reference collection, despite prominent display along the walls of the entrance level of the library.

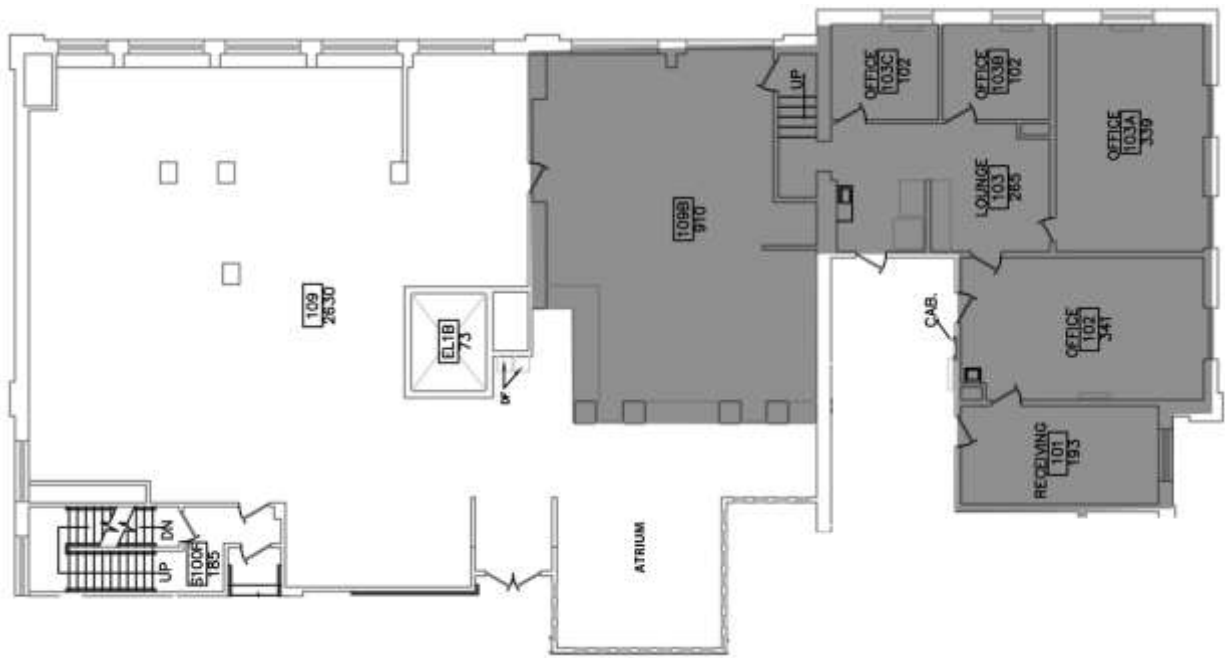


Fig. 1. Floor plan of entry level of library as of spring 2010; shading indicates library space closed to customers of the library.



Fig. 2. Study carrels lining the walls on basement level, spring 2010.

Table 1
Measured collection usage

Collection Name (location)	% Titles Active (10y)	Shelf-Foot Consumed	# Titles Active/Shelf Feet Consumed		
			Q1, 2010	Preceding 5 Years	Preceding 10 Years
Main (ud)	30.10%	12,942	0.136	1.96	3
Govt Pubs (udgd)	9.10%	1,566	0.029	0.75	1.6
Perm Resv (udef)	33.60%	54	0.463	4.22	7.1
Reference (udref)	4.70%	149	0.054	0.42	0.7
Thesis (udth)	45.20%	300	0.11	3.92	5.9
Oversize (udos)	18.60%	234	0	0.12	0.2
Yucca Mtn (udy)	58.10%	126	0	0.02	0.2
Microfilm (udfl)	2.10%	24	0	0.29	0.4
Microfiche (udfc)	0.10%	42	0	0.33	0.8
CD (udcd)	47.90%	4	8.5	158.5	263.3
Govt Pubs CD (udgc)	13.60%	2	1	20.5	43

Although the ten-year activity level of the Main collection seemed acceptable at 30.1%, its overwhelming predominance in terms of shelf-feet consumed demanded closer inspection. A random sampling and evaluation of 655 shelves housing the Main collection—roughly 15% of the entire population—revealed that housing that archived printed and bound periodicals were responsible for over half (54.1%) of the shelf space housing the Main collection bearing witness to a complaint that had begun to become common from faculty and students, “I just can’t browse these shelves. I keep getting interrupted by long runs of journals.”

An even more common complaint stemmed from the spread of library collections across all four floors of the library, requiring first time users of the library to be issued a map of the collections as a way-finding tool. The earlier mergers of the collections of multiple branch libraries combined with the march of time had resulted in a situation reminiscent of (Bennet, 5-6): “Library after library has sacrificed reader accommodations to the imperative of shelving. The crowding out of readers by reading material is one of the most common and disturbing ironies in library space planning.”

Identified Changes

It is important to note that changes were accomplished despite the lack of a formal budget allocation, and in the face of dramatic cuts overall to the state-funded university. Anything accomplished would have to be done with existing library resources: 3.5 FTE library staff and the historical allocation of student work hours, roughly seven student workers available for a maximum of 25 hours a week. After judicious review and consultation concerning proposed changes with faculty and students from supported disciplines, a work breakdown structure was developed to guide tasks that would be ongoing for several years subsequent in concert with other UNR Library departments that would be impacted.

Policy Changes

Regular observation of customers of the library seemingly compelled to stealthily bring in items of food or drink underscored the reality that the library lacked sufficient staffing levels to be able to enforce the “No Food or Drink” policy that had been in effect throughout the library. Given the generally unwelcoming message broadcast to potential customers, the policy was summarily dropped and signage removed. Similarly, the “Quiet Area” policy that had been in effect throughout the library was flipped. The entire library became a “No Shushing” zone. In part recognition of the acknowledged role that

conversation and collaboration have in supporting the learning mission of the University, and part acknowledgement that the open architecture of the library to dampen sound and prevent transmission from one floor to the next was simply nonexistent: from the entry level to the third floor, each floor was open to the atrium with no intervening sound barrier. As the basement floor was not open directly to the other floors, and was surrounded by earth and divided into areas that would better mitigate sound, it could serve as the “quieter” floor of the library.

During the observation period, the author made a point of engaging with many students and faculty outside of the library in conversation to gain input and vet possibilities in the re-imagining of library services and space. A troubling pattern emerged regarding the library’s branding. In general, if potential end-users were aware of the library’s existence, they had little to no idea of the library’s specialty. To correct this perception, the library was rebranded from the “DeLaMare Library” to the “DeLaMare Science & Engineering Library”—specifically including the type of library in the name would openly identify with the communities served, while clearly indicating to newcomers the types of materials and support that might be found. Anecdotal evidence seems to support reciprocation on the part of the communities supported who have begun to think of the space as “their library”.

Collections Management

Based on preliminary observations and capacity estimates, a bold plan was conceived: if faculty and students were willing to allow the migration of the printed and bound journals from the open stacks of the library to the automated retrieval system (ASRS) at the main library, to remain available on-demand by means of a courier service, the balance of items remaining in the Main collection could be condensed into the compact shelving units—opening an estimated 15,000 square feet of floor space throughout the library that could be re-purposed to meet the needs of a wide variety of academic and co-curricular activities. Although a conscious choice was made to avoid the use of the word “storage” conversations with stakeholders and in-depth discussions with students and faculty across the disciplines revealed a strong consensus for electronic access to the archived journal content, with relatively few objections to the proposed relocation. The Chair of one department went so far as to decree that the printed and bound journals were “of historical interest only.” What a difference the past decade has made!

Relocation of the printed and bound journal items was accomplished by systematically working through the stacks, pulling, scanning barcodes, and packing individual batches for transport. The barcode scans were then processed to change the status of each volume to “in transit”, and the items transported to the main library for loading into the ASRS. The bulk of the moves were accomplished over semester breaks when pedestrian transport on campus would be light and staff at both libraries could focus resources. In-between breaks, the rate of progress slowed as moves were limited to two transports weekly. The relocation of the over 60,000 items took over a year to accomplish with in-house resources, and was done with minimal impact to end-users. As the moves progressed, selective disassembly of stacks enabled the moves of the government documents section from the third floor and the Ansari Map Library from the second floor to their intended long-term destinations on the basement level.

The Permanent Reserve and Reference collections were shifted and integrated with the Main collection held in open stacks on the library floor to better enable access and allow for serendipitous discovery while shelf-browsing. The thesis collection and current unbound periodicals were relocated to form prominent reading areas: one specific to Engineering and the Geosciences on the basement level, and the other to the Physical Sciences on the mezzanine level. Intended to leverage the high levels of activity and interest across disciplines to trigger not only use but levels of creative abrasion, the areas were equipped with comfortable reading chairs and designed to lend a popular bookstore feel.

Building Management

With the long-term goal of housing the bulk of the printed collections on the basement level of the library, it made sense to relocate the Circulation desk as well. A location was selected that would place the desk near the exit and within feet of both the Main and the Government Documents collections. The “permanent” desk was detached from its former location on the entry level and reassembled in its new

location in the basement, and a new service point established near the entrance to the library on the entry level. Inspired by Woodward, the opening up of the former Circulation space enabled the relocation of staff from their private offices onto the public floors of the library in spaces that were not only proximate to their work, but provided a friendly and *available* staff presence on each of the floors of the library deliberately blurring the line between librarian, staff, and customer of the library. It bears mention that the new arrangement has borne significant fruit in terms of service levels and staff availability to provide assistance. Students seem much more willing to approach a familiar face within view when they have a question or problem than to go to a different floor.

Relocation of staff offices enabled the immediate repurposing of the former offices as student collaboration rooms. The rooms were enrolled in the room reservation system to become available to members of the library, and immediately began to see use. Left behind during the relocation was a centrally located kitchen, equipped with a sink as well as standard kitchen amenities such as refrigerator, microwave, and coffee pot. Although an afterthought, the "micro-kitchen" was made available for use by customers of the library, and has proven to be both well-used and cared-for, seemingly a powerful signal of trust sent by the library to its users.

Repurposing cubicle walls and glass panels, along with other furniture available through regular visits to the campus surplus department, made possible the construction of several additional semi-private collaboration rooms strategically located on three of the floors of the library (see fig. 3), doubling the number of collaboration rooms available in the library. The growing empty spaces in the library, the result of collections migrations, were furnished with tables and chairs, avoiding the appearance of unused space that could send the wrong message to campus administration. Despite initial design concerns, a large number of matching kidney-shaped tables that became available were put in place on the second and third floors of the library and immediately adopted by students and faculty working collaboratively in the library.

The observed problem associated with insufficient restroom capacity was quickly resolved. With the exception of the nameplate, the male and female restrooms were configured identically. Could it be as simple as changing the nameplates? Over a period of several weeks, impromptu questioning of users waiting to use a restroom revealed a unanimous preference for gender-neutral restrooms. After consultation with upper library administration a work order was submitted to change the faceplates on the doors. A short time later, at a nominal cost on the order of a few hundred dollars, the restroom capacity of the library had been effectively doubled. Despite significantly increased usage of the library, lines have not been observed waiting to use a restroom since the signage change was implemented.

Library Technology

Increasing use of the library drove the need to incrementally increase the number of computer workstations available for use within the library. By deferring the scheduled replacement of the computer workstations in DeLaMare, it became possible to repurpose workstations available from the replacements at the main library, enabling the increase without additional up-front cost. Key to the adoption and use of the spaces, targeted improvements were simultaneously made to the wireless networking capability throughout the building using similarly repurposed equipment.

Keeping approximate pace with the number of users finding, adopting, and using the library, the number of computer workstations available throughout the library tripled from thirty-nine in the spring 2010 semester to the current number of 120. Although a non-trivial cost, the single aging laser printer on the entry floor of the library was replaced with new laser printers and release stations available on each of the floors of the library.



Fig. 3. Semi-private collaboration areas constructed from repurposed cubicle parts.

Additional power outlets and network drops were needed in order to provision the installation of the additional workstations. By similarly deferring network upgrades to the building it was possible to make use of existing network capacity, while the nominal expense of installing ports where needed could be covered by the library operating budget. Consultation with campus facilities electrical staff confirmed the availability of excess capacity in the existing electrical service. Installation of additional power outlets in the walls where needed would not be a prohibitive cost. Close inspection of the architectural drawings from the 1997 retrofit of the library and a willingness to explore the possibilities enabled a bonus addition of numerous floor outlets throughout the library for the cost of the brass floor plates alone.

Increasing use of the library quickly consumed available collaborative space. The purchase of six rolling whiteboards for the library was met with enthusiasm as end-users formed ad-hoc collaborative areas. Anecdotal feedback from users included appreciative commentary regarding the sizes of the whiteboards: "they're at least big enough to start a problem on. I wouldn't even bother if it were smaller." Investigation of the pricing options revealed that a recently developed whiteboard paint could enable the library to add whiteboard space at a cost of nearly one-quarter of the price of the previously purchased rolling whiteboards. Mid fall 2011 semester, the library added 1,000 square feet of whiteboard wall space on targeted walls within the library as a pilot, immediately transforming wall space into ad hoc study rooms (see fig. 4). By the Spring 2012 semester, all the whiteboard space available in the library was regularly in use. Based on the product's success and performance, an additional 1,500 square feet of whiteboard wall space is currently being installed in the library.

Feedback from users of the library spaces continues to inform technology decisions. Recent additions include the installation of five chalkboards. Additional technology enabled the provision of new services in demand by researchers and learners alike including large-format (poster) printing and scanning, and most recently 3D printers and scanners. Other non-traditional additions to the library collections in support of the learning include programmable calculators, robotics and electronics kits, and a number of wireless drone helicopters with an application programming interface.

Library Events: Embracing Communities of Practice

An exciting side-effect of the library's extensive use by communities of practice across the sciences and engineering on campus is its use serving as destination for programs and events. Building on the provision of private, semi-private, and quite public collaborative spaces within the library, such use of the library was initially "primed" by hosting events central to interests of the disciplines served and augmented by the initial arrangement with the campus tutoring center to provide tutoring for courses in the sciences, engineering, and math on the entry floor of the library. Indications that "critical mass" had been attained ranged from weekly "Tech Talks" hosted by the student chapter of the ACM with invited faculty to faculty holding office hours or recitation sessions for their classes. Other indications included activities like a college-wide Rube-Goldberg machine design competition and hosting exhibits or undergraduate research poster sessions. The library is alive with teaching and learning opportunities, developing organically and brought to "their" library by its members. Beyond introducing new potential users to the library, members of separate communities interact and learn from one another even as they deepen a connection with the library and its resources.

Conclusions

Steven Bell points out that today technology and user expectations are "...forcing libraries to eliminate book warehouse space and to replace it with people spaces that are inviting and offer the kinds of technologies that people want" ("*Future of Librarians Interview*"). This is precisely what has been accomplished in DeLaMare Science & Engineering Library. Rather than a negative, the result has been a renaissance of re-discovery of the library and renewed relevance to its communities. Foot-traffic in the library has seen an over five-fold increase (520%) as indicated by comparison of the peak number of 182 simultaneous library users in the Spring 2012 semester.

Over a relatively short period of time, and without a budget, the DeLaMare Science & Engineering Library has gone from being a relatively underutilized repository of books to an active hub of learning and research engagement for the sciences and engineering on campus. Development of both public and private collaboration areas throughout the library has proven key to the re-imagining of the library spaces. The combination of strategic relocation of library staff throughout the library with encouragement to openly focus on and identify with values of communities of practice (Wenger, McDermott, and Snyder) has enabled repeated leveraging of opportunities for open dialog with constituents representing diverse perspectives. The familiarity and excitement generated enables the library to directly support the learning mission of the university, even as it enables cross-disciplinary communication and researcher engagement.

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Fig. 4. Whiteboard walls enables the formation of ad-hoc study groups.



Fig. 5. Multiple groups simultaneously utilizing the wrap-around whiteboard walls on the third floor of the library; an active hub of learning and research engagement.

A Tale of Two Libraries: How Two Universities Prepared for the Future with Ex Libris Alma

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Abstract

In fall of 2009, Ex Libris set out to learn what technology libraries needed to maximize their institutional value. After collaborating for three years with development partners such as Princeton University Libraries and Purdue University Libraries, Ex Libris released the Unified Resource Management system Alma to the marketplace. Inspired by the unprecedented opportunities made available through Alma's unification of all of the library's resources, Fort Hays State and Midwestern State Libraries made the decision to unify their library's workflows by eventually replacing their ILS, ERM and digital asset management tools with Alma and became participants in the Early Adopter group.

This major industry development was released at a time when serials expenditures began to demand disproportionate amounts of the budget, and offers libraries an opportunity to cut costs through immediate efficiencies including cloud hosting and workflow management. Alma provides fingertip access to e-resource usage statistics by utilizing business intelligence engines inside of the staff workflow.

Staff from Fort Hays State University and Midwestern State University will discuss the timeliness of this transition, key issues driving the evaluation of the solutions, opportunities to cut costs and increase efficiencies, and reactions from colleagues. The presenters will also speak about the impact technology can have on the future of the library, practical insights on how to prepare for change, and how to evaluate today's workflows in the context of unified resource management.

Introduction

With the aging of many integrated library systems, many libraries have begun to explore new products offered by a variety of vendors that include Ex Libris, OCLC, Serials Solutions, and Innovative Interfaces along with open source solutions such as Kuali OLE. The trending away from the traditional ILS to platforms that had designs based on print collections has occurred because of transition within academic libraries from print collections to collections based on electronic resources and from online catalogs based on the traditional card catalog to discovery services (Breeding). As shown by the approaches taken by two medium-sized academic libraries, the decision to migrate from the ILS to a unified resource management platform involves a vision for the future, internal consensus building and communication, institutional and unit-level commitment, and project leadership.

Profiles of the Institutions and Libraries: Fort Hays State University, Forsyth Library, Midwestern State University, and Moffett Library

Established in 1902, Fort Hays State University operates as a state comprehensive university with a liberal arts emphasis. Located in Hays, Kansas, FHSU has a combined on-campus and off-campus

enrollment of 12,000 students and offers certificates and degree programs at the associate's, bachelor's, and master's levels through 28 academic departments. Forsyth Library provides access to information through an online catalog, 225,000 print volumes, 1,800 print and online databases and journals, and 375,000 microforms. The Library also includes a federal and state government documents repository that includes 700,000 print and online government documents. 18 Library faculty and staff offer a full range of formal and informal services.

Midwestern State University (MSU) is a public liberal arts institution located in Wichita Falls, Texas. The only university in Texas to be a member of the Council of Public Liberal Arts Colleges (COPLAC), MSU has a registration of 6,100 students. Its Moffett Library has over 400,000 items and over 100 databases. The library staff consists of nine librarians, six library assistants and approximately twenty student workers.

The Decision to Migrate to a Different ILS

Staff from both Forsyth Library and Moffett Library made similar decisions about migrating to Alma. Both libraries depended on Voyager servers that had become more costly to maintain, required upgrades, and had neared end-of-life. As the decision-process went forward, both libraries evaluated the option of purchasing a new server and continuing with support from the university's technical staff or moving to a hosted service. The decision-process for Forsyth Library and Moffett Library included considerable consultation between management and staff about the possibilities for an ILS upgrade. Although the staff from the two libraries had made similar decisions, contact between the two had not existed. Both set a primary goal to move incrementally towards the purchase of a fully integrated system where the user side and back-office side of the library software would work in tandem to provide a more efficient, cohesive, and functional Integrated Library System.

During 2011, Forsyth Library staff reached a critical decision-point about the future of the integrated library system. Part of the decision-making discussion covered the possibility and benefits of moving from server-based ILS systems to cloud-based ILS systems. Staff had narrowed the decision about vendors to two possibilities and had begun serious discussions about migrating to a new system. Because the Library had an extensive history with the Voyager system and had achieved a comfort level with that system, the decision-making process focused on either moving to the cloud-based VoyagerDirect system or to the cloud-based Alma system. After hearing an on-site presentation about Alma, the staff gave unanimous consent to migrating from the current Voyager system to Alma.

Moffett Library's journey to Alma began in May, 2009, at the Ex Libris Users of North America (ELUNA) conference in Richmond, Virginia. A presentation given by Chief Strategy Officer, Oren Beit-Arie, discussed Ex Libris' vision for the future of library software. At that time, Ex Libris introduced an emerging next-generation library services framework. Moffett staff gained exposure to the full complement of Ex Libris products, including Primo, Primo Central, and SFX. The idea of a "back-office" component, referred to as a Unified Resource Management system, or URM, was also mentioned as the underlying foundation of the complete package to replace current library systems.

ALMA

Ex Libris began the development of its uniform resource management system during 2007. Renamed Alma, the next generation library management service allows libraries to consolidate, optimize and extend the range of services by:

- Unifying the disparate systems today's libraries manage for electronic, digital, and print resources
- Optimizing workflows through shared data and collaborative services as well as a cloud-based infrastructure
- Re-directing resources to focus on extending library services within and outside their institutions in direct support of teaching and research goals. (Ex Libris 2012)

Alma supports selection, acquisitions, metadata management and fulfillment for materials in the print, electronic, and digital formats and includes a robust reporting system. Staff from Forsyth Library and Moffett Library had a keen interest in the potential of the Alma system to streamline workflows, support content, and integrate with other systems. The migration to Alma and Primo affects every operational area of the Library and focuses on a dramatic change in operational workflows. The resulting changes in workflow promise more efficient operations and move the Library away from a silo-approach to operations.

In addition, the potential for Alma to provide analytics for decision-support and reporting provoked great interest. Alma provides the potential for additional operational efficiencies and the revolutionary change of internal processes. The cost savings occur through the functionality given by Alma that allows a library to move from the use of separate systems for discovery, digital production, and finding aids to a unified system.

Advantages of Alma include:

- Unified workflows – day to day library operations will no longer be hindered by software built on the established silo structure
- Semi-automated processes – many of the daily tedious functions will be automated and performed by Alma, requiring intervention by library staff only when a decision is required
- Electronic resource management (ERM) system – included in the framework of Alma, the ERM will provide capabilities to manage periodical resources that many academic libraries lack. Additionally, the ability to scan and maintain contracts within the Alma software will improve a difficult and cumbersome task
- Patron driven acquisitions (PDA) capability – included in the framework of Alma, PDA capabilities will assist collection development departments to more easily select resources
- A future integrated digital content management system
- Management of staff and user rights simplified by assigning roles within Alma which will allow staff to access the resources and workflows assigned to them from multiple locations.
- Reporting capabilities – significantly improved with the use of Oracle Business Intelligence as an integral part of Alma
- Cataloging functions – improved with the extension of capabilities due to the community environment promoted by Ex Libris and Alma methodologies
- Fulfillment – improved efficiency in circulation with new capabilities of requesting digitized resources and interlibrary loan requests
- SFX (link resolver) fully integrated within Alma – improved management of electronic periodical resources

Staff from both libraries studied competing services offered by other vendors but neither considered other products as the best option. Because Forsyth Library and Fort Hays State University work extensively with on-line and international students, the staff believes that experience in supporting those diverse audiences can benefit the development of Alma. Moffett library staff cited doing nothing as a true cost and weighed the cost of participating and believing in the potential of Alma against the cost of not participating and the potential for stagnation and complacency.

Participating in the Ex Libris Early Adopter Program

Ex Libris announced the launch of its North American early adopter program for the Alma library management service during October 2011. The program allowed its pioneering member libraries to become fully engaged with Alma's final development—ahead of the solution's general release in 2012. In addition, the program designates Alma to manage each member institution's full range of library operations, preceding Alma's general release in 2012.

Staff from Forsyth Library and Moffett Library saw the Early Adopter Program as an opportunity to collaborate with other libraries and organizations for the development of a next generation library system. Forsyth Library agreed to participate in the Ex Libris Early Adopter program during November 2011. The

Forsyth Library implementation began during January 2012 with a “go live” date of September 2012. Moffett Library agreed to participate as a member of the Early Adopter Program for Alma in June of 2011. The Moffett Library implementation began in July 2012, with a “go live date” of December 2012.

Initial Preparation

Both libraries made key decisions that positioned each for the migration to Alma. For Forsyth Library, the decision to move to a different ILS coincided with a series of internal projects that included inventory control and shelf-reading, weeding, authority control, and a general clean-up of the Voyager system. Initiation of those continuing projects began during summer 2011. With an overall goal of achieving a sustainable and effective presence within the institution, Forsyth Library staff began an extensive review of efficiencies that could occur through the review of print and online collection management policies, the use of decision tools and metrics, modifications of workflows, and changing staff responsibilities.

Given the impact on operations, each staff member of Forsyth Library is involved in an intensive implementation and training schedule. In addition, key members of the staff have the responsibility of notifying and training university faculty about any operational and functional changes. Library staff reviewed the responsibilities shown in table one during a January 7, 2012 meeting (see table 1). In addition, staff established the project management timeline shown in table two (see table 2).

Key points of the Forsyth Library project timeline include direct on-site work with an Ex Libris team beginning in April 2012, the implementation of Primo in June 2012, the implementation of Alma in September 2012, and the migration from ContentDM in February 2014. Forsyth Library acquired a Primo and Alma sandbox in April 2012 for the purpose of internal training.

Once the decision had been made to proceed with moving to hosted services, Moffett Library staff realigned their financial structure with a complete review and analysis of database resources. The library’s budget had been flat for four years with no relief in sight, necessitating a critical eye to achieve cost reduction by eliminating duplication and streamlining less-than-efficient use of resources. Usage statistics, overlap reports, input from faculty, and anecdotally polling the librarians were all part of the long overdue internal evaluation process. The results led to a finer, more focused selection of databases to better support users and curriculum. Moffett adheres to a new motto of “quality over quantity” with regard to selection and purchase of all library resources.

Table 1
Forsyth Library Alma Migration Staff Responsibilities

PROJECT LEADER RESPONSIBILITIES	
<ul style="list-style-type: none"> • Lead the overall implementation project, • Meet with the Implementation and Solutions Teams • Serve as the primary contact to the Ex Libris project manager • Provide reports to the Director • Challenge staff to use the Alma implementation as an opportunity to approach and accomplish work in ways that may achieve even greater levels of efficiency and effectiveness. 	
PROJECT SCHEDULING AND COMMUNICATION RESPONSIBILITIES	
<ul style="list-style-type: none"> • Ensure overall coordination of scheduling, reporting and communications, and attention to resource needs across the project working groups 	
IMPLEMENTATION TEAM RESPONSIBILITIES	
<ul style="list-style-type: none"> • Analyze current selection, acquisitions, licensing, cataloging, and marking workflow to determine tasks that should continue • Explore options in Alma and establish efficient practices. • Analyze current workflow in circulation, ILL, reserve, reference, and digital collections and 	

determine tasks that should continue.

- Explore options regarding current tasks in Alma and establish efficient practices.
- Focus on the user perspective.
- Evaluate Alma smart fulfillment options, with special regard to staff efficiency and response to user needs, including in the areas of ILL (lending and borrowing), and reserve.
- Analyze current selection, acquisitions, licensing, cataloging, and marking workflow to determine tasks that need to be continued. Explore options in Alma and establish efficient practices.
- Identify, review, and advise on data policies and standards relevant to the Alma system and all of the operations and services (from selection to cataloging and metadata management to circulation) that the system will ultimately support.

SOLUTIONS TEAM RESPONSIBILITIES

- Analyze and evaluate back-office tasks, including those involving selection, acquisitions, cataloging, and metadata
- Determine the ongoing need for current work and the most efficient way to do needed work in Alma for the purpose of reducing duplicate data and redundant workflows;
- Identify and prioritize data clean-up projects, remediate data errors and prepare it for mapping to data structures in Alma;
- Prioritize, and distribute remediation work to appropriate staff with priority given to projects that will make migration easier
- Assure data consistency.
- Identify data issues, including but not limited to retention/elimination of data and identification and resolution of local practices.
- Identify systems where interoperability between Alma, financial, student, and other systems is required.
- Identify external and internal information needs
- Identify training needs and work closely with Ex Libris staff to deliver appropriate initial and ongoing staff training in the most efficient and effective manner.

ASSIGNMENTS

Implementations Team and Solutions Team members may call on the appropriate staff members for assignments that focus on specific tasks such as digital collections, ILL, or reference.

Table 2

Forsyth Library Project Implementation Timeline

Stage One – January 2012 – April 2012

1. Identify, prioritize, and begin initial data clean-up projects
2. Initiate authority control
3. Identify migration points such as Serial Solutions, Aquabrowser, and ContentDM
4. EX LIBRIS WILL HOST WEB SESSIONS TO REVIEW ADDITIONAL FUNCTIONALITY FOR ALMA.
5. Review practices, policies, and workflow
6. Identify future workflow needs
7. Identify and solve data mapping issues
8. EX LIBRIS WILL HOST A FACE-TO-FACE WORKSHOP THAT WILL FOCUS ON DATA MIGRATION, WORKFLOW ANALYSIS AND PRE-IMPLEMENTATION PLANNING.
9. Identify training issues and begin producing documentation
10. Identify internal and external communication needs
11. Evaluate progress through stage one

Stage Two – April 2012 – July 2012

1. ***BEGIN ACTIVE WORK WITH EX LIBRIS IMPLEMENTATION TEAM***
2. EX LIBRIS WILL HOST A SERIES OF VIRTUAL MEETINGS THAT WILL ALLOW ALMA DEVELOPMENT PARTNERS TO SHARE THEIR IMPLEMENTATION EXPERIENCES.
3. Determine interoperability needs and design issues
4. Determine workflow and reporting needs
5. Determine new functionalities
6. Implement staff training
7. Implement external communication plan
8. Evaluate progress through stage two

Stage Three – August 2012 – December 2012

1. Configure Alma and map data
2. EX LIBRIS WILL WORK CLOSELY WITH EACH CUSTOMER TO DEVELOP A CUSTOMIZED IMPLEMENTATION PROJECT PLAN WHICH BEST ENSURES A SMOOTH MIGRATION TO ALMA.
3. ***MIGRATION TO ALMA OCCURS IN SEPTEMBER***
4. Identify and solve any data mapping issues
5. Resolve post-implementation issue or data problems
6. Evaluate implementation of Alma
7. Evaluate staff understanding of Alma features and operation

Stage Four – January 2013 – July 2013

1. Assess workflow design
2. Evaluate implementation and production
3. Review and implement ongoing Alma management structure

Stage Five – January 2013 – July 2014

1. Digital Content Management migration completed
2. Assess workflow design
3. Evaluate implementation and production
4. Review and implement ongoing Alma management structure

Later that same year, Moffett Library decreased the distribution of library funds allocated to each individual college for print resources. At this time, the Library also significantly decreased the number of subscriptions to microform periodicals. These actions freed up resources to make the first initial move to hosted services, as described below, and increased the available funds in reserve for future hosted services.

The final move in restructuring the Moffett resources budget involved a critical evaluation of Moffett's print and electronic journal subscriptions. The end result was a cut of more than one half of the print journals ordered and moving the majority of the remaining journals to electronic format. This move provided a subscription cost savings as well as savings on binding, storing, processing, and maintaining an overly large number of print journals. All these adjustments to the resources budget were accomplished with the expectation of moving forward with the plans for the cloud, software-as-a-service setup as a means of improving Moffett's services to users.

A Cloudburst of Activity

Forsyth Library had gained experience with hosted applications through their prior implementations of a discovery layer and a digital content management system. Because of the experience gained through those implementations and the benefits offered through hosted systems, the decision to move from a server-based environment to a hosted environment for a new ILS became easier.

Moffett Library limited the search for a hosted discovery service to evaluating the products of the three vendors. The criteria used in the Moffett Library evaluation included content, reliability, potential for future growth and development, functionality, technical support, reputation of the vendor, and cost. Both libraries based their selection of Primo by Ex Libris on several factors. Those factors involved a) an established working relationship that occurred through the Voyager ILS; b) the collaborative practice of Ex Libris to include librarians in the development of their products; c) the pricing structure; d) the future vision for growth; and e) content neutrality. For Moffett, the decision to implement Primo became their first step into the cloud and the foundation for migrating to Alma.

After a smooth implementation process over a period of six weeks, Moffett Library went live with Primo discovery and delivery service, Primo Central index, SFX link resolver, and bX recommender service in January of 2011. The response from students, faculty and staff to the improved user interface continues to be overwhelmingly positive. The single-search box and facet categories provided to refine search results have proven to be intuitive and very easy for all users. Search results which span across formats and resource types provide the user the opportunity to select from the full range of resources the university has to offer. Additionally, global aspects of the Primo Central index augment the discovery layer and improve and increase search results.

Forsyth Library staff made a critical decision to move directly from the server-based Voyager ILS to the cloud-based Alma uniform resource management system. No transition occurred from Voyager to VoyagerDirect. In contrast, Moffett Library's next step in transitioning resources to the cloud occurred through moving the ILS and catalog, Voyager, to VoyagerDirect, in September of 2011. Again, Moffett staff experienced a short and very smooth implementation process. The change to a hosted catalog has been relatively seamless, for the most part. A few minor adjustments were necessary, but overall functionality did not change.

Staff Acceptance and Participation

The migration to Primo and Alma involves a series of technological, cultural, and organizational changes for any library (Bates 5). Constants involved with this type of change include anticipation, enthusiasm, acceptance, resistance, leadership, and management. Indeed, the human element introduces a high level of anxiety about learning a new system. Because of these constants, the attention to the impact on staff becomes an important element of any migration plan (Antosh 7-10).

Using the example of the Forsyth Library migration, the reaction of the staff occurred in distinct phases. During the initial review and decision-making processes, staff had an enthusiastic response about the new approach to library systems. However, as the open stages of the migration began and staff had to work through the clean-up of the existing system, the documentation of existing workflows, and consideration of additional tasks, and the increasing awareness of the timeline, their enthusiasm began to wane. All these reactions remain typical of many ILS implementations (Gahn, Cunningham, and McDonald).

Staff reactions included the following statements:

- “Did you really sign the contract?”
- “I think that I’ll retire before going through another ILS change.”
- “This will mean a lot more work for me.”
- “I’ve talked with staff from ----- library and they can’t believe that we would make a decision to move to another system on such a short schedule.”
- “I’d rather not receive all these emails from Ex Libris. This part of the system does not have anything to do with me.”

Leadership at the internal project management level and the Ex Libris project management level provided key turning points and revitalized the enthusiasm of the staff for the project. Internally, Forsyth Library increased the number of small group meetings, implemented a stress busting day, and encouraged collaboration with staff from other academic libraries. In particular, Ex Libris initiated an aggressive webinar/project call schedule that maintained communication between the various project teams. The

schedule allowed library staff to voice any concerns and the Ex Libris staff to address the concerns within hours.

Forsyth Library features a staff that ranges in experience from more than 30 years to less than five years. With this in mind, the Ex Libris project management team recognized some staff would have a considerable investment in Voyager and little or no vested interest in a new system. To counter this factor, the Ex Libris project team asked those staff to focus on any details associated with Voyager. In addition, the FHSU team elected to use Camtasia video screen capturing software as a method for documenting procedures and for establishing training procedures.

The Forsyth Library staff also held a review meeting near the mid-point of the migration process for the purpose of comparing actual project progress with the original timeline. During the meeting, the leadership team focused on a basic gap analysis that identified any weaknesses in the ongoing migration. As the meeting progressed, the team also considered any internal communication problems or concerns. The gap analysis and the discussion about problems and concerns uncovered issues that had hindered the success of the project.

Ex Libris' team saw the value in communicating directly with individual staff rather than funneling all communication through the Forsyth Library project manager. Doing this empowered individual members of the staff and increased the internal commitment to the migration. As a result, the level of interaction between the internal team and the Ex Libris team increased substantially. Ex Libris further demonstrated their commitment to the success of the project by sending an on-site team to the FHSU campus during July. The on-site visit covered four days and allowed staff to build their skills with Alma and Primo while meeting with the Ex Libris experts.

Summary

Alma could not have come along at a better time for academic libraries. All libraries face new demands from patrons for immediate access to as much content as possible on any number of devices at any time. Past systems and workflows simply do not permit the kind of flexibility that academic libraries need to remain vital and relevant institutions for learning communities (Neal). Alma integrates processes, makes more content available with less hurdles for patrons and-perhaps just as important-frees library staff from time-consuming and repetitive tasks. As a result, academic libraries can focus on responding to new patron needs and the provision of new services.

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Information in a Dash: Painless & Penniless Statistical Reports

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Abstract

The new Standards for Libraries in Higher Education approved by the ACRL Board of Directors, October 2011, tasks academic libraries to demonstrate their value and effectiveness with an accompanying foundation of data and performance indicators. Additionally, trends in accreditation processes include using assessment results.

Unfortunately, library statistics are frequently scattered amid different departments, personnel, and formats, making data difficult to find and assemble into reports. The existence of a dashboard gives libraries a simple means of compiling the important data necessary to demonstrate their value.

The concept of a dashboard is not new. Like a car's dashboard, a software dashboard provides decision makers with the information necessary to "drive" the business. Business Intelligence has been using this system for years and has perfected the design. Hoping to discover an affordable software product adaptable for the library, we found numerous choices of software for real time and comprehensive reports. Unfortunately, these proved too expensive for libraries that have experienced funding cuts or were incompatible with the myriad of library programs used. Determined to find a suitable and economic answer, we decided to design our own.

Dashboard design typically consists of bar charts, pie charts and line graphs. This visual presentation of performance measures provides users a "snapshot" of the whole library organization instantly by capturing and reporting specific data points from each department. This also provides users with the ability to generate detailed reports and saves time and frustration as compared to searching in numerous areas for key information and running multiple reports.

With this in mind we turned to Google Sites in conjunction with Google Docs. We were pleased to discover this combination provided a simple, scalable, and flexible solution. Librarians can access the dashboard "in the field" for presentations, back up or integrate Google Docs with Excel spreadsheets, and control the accessibility level of each document and page.

What follows is a detailed account of our process, which will give you a "snapshot" of your library and the ability to create reports in a "dash."

Introduction

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Literature Review

It is hard to escape the current climate of accountability directed specifically towards institutions of higher education. Organizations are responding in various ways to the growing pressure to document the quality and value of colleges and universities, particularly in relation to student learning, achievement, and success. In an increasingly tough economic climate for many libraries, being able to demonstrate impact and value is crucial. This has become an important focus for research in recent years.

Karen Brown and Kara Malefant, in their report from the ACRL summits on the value of academic libraries, state, “Academic librarians recognize the need to be part of the larger national dialogue about higher education effectiveness and quality... and it has become one of the association’s strategic priorities” (Brown and Malefant 3).

Paul Basken’s article in the Chronicle of Higher Education states, “Colleges are facing mounting demands, from both ends of the political spectrum, to hold down costs and demonstrate their value to students” (Basken 1).

In November 2011, a Congressional hearing before the Subcommittee on Higher Education and Workforce Training released “Keeping College within Reach: Discussing Ways Institutions Can Streamline Costs and Reduce Tuition.” Chairwoman Virginia Foxx explained to those in attendance, “As we continue to rethink our role in education, we should use our influence to encourage accountability and transparency” (“Keeping College within Reach” 2).

One of the best, and most significant studies for academic libraries was conducted by Dr. Megan Oakleaf and published in 2010. “In the face of the evidence we see in today’s external policy and funding climate, we believe academic libraries, and the colleges and universities they serve, are now and will continue to be compelled to participate in these conversations and find appropriate ways to show their value” (Oakleaf 7).

A clear and convincing argument has been established. It is no longer “if”, but “when” and “how” will your library demonstrate its value to your community. However, proving one’s value is not so easily accomplished. Claire Creaser and Valérie Spezi speak to this issue, “. . . The academic library community has been dealing with the issue of how best to demonstrate its value for years . . . libraries are struggling to find appropriate, and systematic, easy to capture evidence of their value . . . much work is needed to build an evidence base in this area” (Creaser and Spezi 4).

Evidence-based practice (EBP) is a common term in assessment research. Keith Russell shares his thoughts on EBP and libraries in his article “Evidence-Based Practice and Organizational Development in Libraries.” “It seems logical that libraries would embrace evidence-based practice. People who work in libraries are knowledge workers and are better equipped than most citizens to identify information on any particular topic, locate it, and gain access to it” (Russell 914).

Library media specialist, Joanne Bates, explains, “Evidence-based practice is the collection, interpretation, and use of data, such as collection statistics or assessment results, that measure the effectiveness of a library media program. Make no mistake, administrators and policymakers give priority to programs that they believe work, and this kind of specific data is a powerful tool for conveying the effectiveness of a library media program” (Bates 1). Although Bates is reporting on school libraries, academic libraries can draw from this experience and pursue the goal of proving their value. EBP is an accepted method of measurement, however, it is not the only method.

Assessment Methods

Rachel Applegate in “Designing Comprehensive Assessment Plans: The Big Picture leads to the Little Picture” offers five basic approaches to designing an overall assessment plan: using existing data, developing a strategic plan, fashioning a departmental plan, adapting an academic departmental assessment grid, and employing an advanced approach. The advanced approach comprises two different options, dashboards and balanced scorecards. Applegate goes on to explain the difference between dashboards and scorecards. “The primary goal of a dashboard is to summarize current performance and to provide timely alerts about problem areas. A balanced scorecard makes use of the same type of performance indicators as a dashboard . . . The distinguishing feature of the balanced scorecard approach is the balance. Not just any indicators will do—they must provide a deliberately broad perspective on the organization” (Applegate 168).

The balanced scorecard (BSC) performance measurement tool originally developed by Kaplan and Norton in 1992 for use in businesses and since adapted for the public and non-profit sectors, has also been considered for academic libraries. Michele M. Reid, in her article “Is the Balanced Scorecard Right for Academic Libraries?” concludes, “Through the use of metrics specifically focused on organizational goals and strategy, academic libraries may better measure those services most closely reflecting their organizational values in order to validate their crucial role in the delivery of a quality educational product to their customers” (Reid 93).

A 2009 report from Deborah Beard titled “Successful Applications of the Balanced Scorecard in Higher Education”, states, “BSC, as a strategy-based management system, enables not only business organizations but also educational institutions to clarify their visions and translate strategies into operational objectives, measures, and actions in alignment with their missions and core values. Furthermore, the process of establishing the BSC provides the opportunity for identifying what really matters to customers and stakeholders: why the institution exists, what is important to the institution, and what the institution wants to be” (Beard 278).

Current Reporting

Public Library Examples

Public libraries are ahead of academics in using return on investment (ROI) appraisal, in part because of the required annual reporting tied to their funding and accreditation. Colorado public libraries have focused on ROI, directly showing the taxpayers their return on investments. The Library Research Service (LRS) website reports, “1 dollar of taxpayers money = 5 dollars return in library services” (Steffen et al. 22).

The LRS report and website, developed by the Colorado State Library Department, has an extensive list of resources for all types of libraries including tools, reports, etc. This is a great starting point for options in determining value. “Libraries combine the best of business practices, like economy of scale and resource management, and marry those to the best qualities of our society, to create a resource that benefits everyone. In terms of value for your money, you can’t get any better than that” (Steffen et al. 8).

Academic Libraries and Data

ROI does not translate as easily to academics. Finding a direct correlation between each dollar spent seeing “x” return from library instruction or research grants received is much more difficult, but not impossible, and is becoming increasingly important.

Academic libraries focusing on “value” received a valuable report in October 2010 with the publication “Value of Academic Libraries” by Dr. Megan Oakleaf. This document not only definitively explains the “why” of proving our value, but also is a roadmap for the “how.” ACRL has made demonstrating library relevance the top issue for the association.

From the blog “In the Library with the Lead Pipe,” Hilary Davis gives a judicious view of libraries, assessments and reporting. “Libraries are pretty adept at measuring lots of different kinds of interactions,

so how can we be so bad at demonstrating our worth and making our point?” (Davis). She goes on to explain the usefulness of analyzing all the data points libraries collect. “But the relationships between use and need patterns can help libraries make hard decisions . . . and creative decisions to improve user experiences, outreach, achieve efficiencies, and enhance alignment with organizational goals” (Davis). Libraries can put the data to work as an aid in making decisions about website design, library hours, staffing, and collection management.

The website, “Value, Outcomes, and Return on Investment of Academic Libraries (Lib-Value),” funded by a grant from the Institute of Museum and Library Services (IMLS), is now available at <http://libvalue.cci.utk.edu/>. Fortunately for librarians looking for help with demonstrating value and ROI, the Lib-Value website provides a wealth of tested methodologies and tools to assist librarians developing their own demonstration of value.

Why visualize the data?

Visualizations make it easier for people to interact with a complex set of a data. Viewing a singular entity in the context of other information is valuable. Another advantage of graphics is that they make relations between data points easier to understand.

Guy Kawasaki in his book “Enchantment” urges us to, “Move from data to meaning. Numbers can be captivating if you move beyond just spouting the data.” (Kawasaki 85). According to “Now You See It: Simple Visualization Techniques for Quantitative Analysis ” author Stephen Few:

As providers of quantitative business information, it is our responsibility to do more than sift through the data and pass it on; we must help our readers gain the insight constrained therein. We must design the message in a way that leads readers on a journey of discovery, making sure that what’s important is clearly seen and understood. Numbers have an important story to tell. They rely on you to give them a clear and convincing voice. (Few 212)

Numbers seldom speak for themselves, visualizing the data helps others see the meaning hidden within.

According to Hilary Davis, “I haven’t seen a groundswell of examples indicating that libraries have taken these strategies and these conference presentations to heart. What I have experienced is a few really good ideas popping up in conversations with colleagues about how to make the case for libraries in simple, compelling, visual ways” (Davis).

Criss Library Dashboard Creation

Aside from needing to be free or extremely inexpensive, Criss Library’s dashboard criteria included a user-friendly interface, broad accessibility, backup capability, flexibility with content formats and type, and security options. The only option not available in our solution is real-time reporting across all departments.

Usability & Customizability

The “What You See is What You Get” interface of Google Sites and Docs is ideal. Library staff did not need any previous knowledge of web coding, though Sites does provide an HTML coding option for those who wish to tweak and customize beyond the supplied tools. For simplicity, a design template was selected from Google’s gallery and paired with the library website’s banner to maintain the Criss brand. Changes to the design template and navigation links, whether customized or not, happen across the entire website without altering the content. Using a template encourages site builders to adhere to user-friendly design practices.

One detriment to using Google programs is the periodic interface changes to the location of tools, icons, and menu options. Google’s minimalist design can frustrate those unfamiliar with its menu and hierarchy system, though it is quickly learned with a little exploration. Changes have a tendency to be made without announcement or warning. In June, Google launched Google Drive, which is Google Docs plus a non-

discriminatory cloud space for non-Google files. The link to “Docs” in the account menu switched to “Drive,” though once someone accesses a document or spreadsheet on their account, they will find the usual interface and tools. Though Google often gives users a choice to change or stay in the current interface, users endure continuous prompts to change until one day the change becomes permanent. Drive, however, was not a choice. Despite this behavioral quirk, we feel the benefits of Google’s services outweigh these costs.

Free

Google Sites and Docs and many supplemental tools are “free for use” and only require that users sign up for an account. Of course, Google reserves the right to use any information it gains from users for its own needs. Sites and Docs are also ad-free; a feature we felt was an absolute requirement.

Control of Access

Sites and Docs have access layers: Private (Sign-In), Private with selective sharing, anyone who has a link (not searchable on Google), and Public (searchable on Google). We created a private Google account and gave the login information to staff who would be managing the dashboard. The Google account spans all of Google’s free services, allowing efficient operability. When we created the site, we set the status to viewable by anyone who had a link; this made it accessible but not searchable during the experimentation phase. It is now fully open to the public. Docs can also be controlled on a broad or individual basis, and Docs provides the content for the dashboard. Google defaults Docs to private, but if a user inserts a graph from a Google Spreadsheet to the dashboard, Google will prompt a user to change the document to public viewing in one click. This status allows someone looking at the dashboard to click into the spreadsheet for further study. Users not signed into the dashboard account can only view the document, not manipulate it. Access to a private document can be granted to specified individuals who are given selective permissions (can only see it or can edit it). These flexible features increase access to information while protecting the integrity of the data.

Suite of Tools

Google offers a plethora of tools and programs. The dashboard is comprised of Sites, Docs, and Tables/Graphs. Docs allows for text documents, spreadsheets, forms, tables, and drawings. The majority of content for the dashboard is produced within Docs and displayed on the dashboard. However, some graphs are created in Excel and saved as an image file and then uploaded onto the dashboard. Excel spreadsheets can be uploaded to Docs and spreadsheets can be downloaded into Excel with ease, but there are occurrences of certain functions being lost in translation.

Set Up and Maintenance

The home page of the dashboard acts as a general, academic year overview of department statistics. Placing all possible graphs and statistics on one page would be overwhelming. Instead, we allow each department to have their own statistics pages. For example, the Research Services Unit (reference) has multiple pages, each dedicated to a specific collection of statistics: All Reference (all reference staff and points of service), First Floor Desk (reference desk only), and Reference Librarians (faculty librarians). Each month data is collected from various points in the library and entered into respective Google spreadsheets and then converted into graphs. Charts on the dashboard show the current month as well as time comparisons to spot patterns and trends. Examples of dashboard include March statistics for the reference desk, checkouts spanning from 2009 to 2012, and fall semester gate counts over the past three years. Continuous or permanent charts require only quick input in Docs to refresh on the dashboard, whereas a new chart will need to be inserted onto the web page.

The period of initial set up and backdating of data depends on how far back a library wants to analyze data through the dashboard. For one person, only a half day or less is necessary for the monthly update on the entire dashboard. That time could be further divided by each department appointing their own manager for the dashboard. The incremental time spent on the dashboard each month saves time for annual reports, as the raw data is already collected and categorized and ready to be used.

A Year Later

Use of the dashboard began slowly but has increased over the year. The Research Services Unit monitors statistics as it progresses through an internal study of how the reference desk is changing and how to adapt its services accordingly.

Perhaps the biggest complement to our dashboard came from the University of Nebraska, Omaha's (UNO) Chancellor. In his annual fall convocation speech to the University community, Chancellor Christiansen referenced our dashboard as an excellent example of useful creativity, explaining how simple it was for him to find the statistics he needed for his speech (gate count and total volumes in the library). Additionally, he instructed the office of institutional reporting to create a campus-wide dashboard. Now in its infancy, PING is taking shape as more values are collected and posted.

Its full potential, however, has yet to be reached. Librarians could create their own pages on the dashboard to use in presentations, gathering and organizing only the data they need while also being able to quickly access additional statistics if questions arise. The old habit of placing graphs in PowerPoint presentations is still in wide use, even though some of those graphs are coming from the dashboard.

Conclusion

Future plans for the dashboard include a survey within the library and additionally campus wide about awareness and usage of the dashboard. Information gathered from the survey will, of course, be included on the dashboard along with traffic statistics from Google Analytics. After reviewing these results, we will have a better idea how to proceed with design and promotion for exposure and awareness purposes.

A survey on a much larger scale by dissemination through a list serve would give an important broad view of dashboard design/use in general and could also provide information useful on how libraries nationwide are answering the "call to value".

Presently we are exploring the addition of info-graphics to the dashboard, continuing with the importance and impact of the visualization of data. Info-graphics is an exciting, creative means to display high-impact statistics with just a glance. Adding this dimension to the Criss Library Dashboard will further increase its power and usefulness.

Our initial trial into dashboard creation and statistical display has been very positive and we are encouraged by the feedback received thus far. We look forward to growing this endeavor and continuing to share our results with our professional colleagues.

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10 Ways to Google-It BETTER

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Abstract

Students often insist that Google can produce the answer to any query, but can they find results which are both timely and relevant? Furthermore, as librarians, do we utilize Google tips and tricks to our best advantage? Many students use Google as their exclusive information seeking agent yet, similar to database searching; fail to grasp the benefits of limiting their results. Given the large number of students who utilize Google, there is an opportunity for librarians to provide teaching moments in the form of Google search instruction. While Google Searching may not be the end-all in searching experiences our students believe it to be, teaching Google searching may provide a foundation for the introduction of more complex information literacy concepts such as evaluating authoritative content and doing research more efficiently. Learning and demonstrating simple searching methods which can enhance the student Google experience can save librarians and students time while serving as a gateway for providing future database and information literacy instruction.

Introduction

As information professionals it is easy to inwardly flinch when we hear the word Google. In some ways Google is our nemesis, the student go-to for information when librarians are inaccessible or worse-when we are. Google delivers results heedless of the authority, objectivity, sustainability and currency we rely upon as information professionals to validate resource materials. Google is available 24-7 and seems to intuitively understand what the patron is searching for, without a reference interview. In an age where *just Google-it*, has become a cultural archetype how can librarians compete? Should we? Perhaps the division between Google and library resources need not be so wide. In teaching unique searching strategies using Google we can encourage our users to extrapolate these techniques to an unlimited number of library resources. While the simple Google interface encourages natural language searching, there are also operators available which target searching. Many of these operators or their counterparts are surprisingly familiar to librarians. Themes such as truncation, field searching, subject headings, and Boolean operators are available in a variety of forms in Google. Similar to commercial databases, the tips and tricks to getting results in Google are simply a discovery away. As information professionals we can use such discoveries to demonstrate higher order searching techniques to our patrons.

Beyond discovery of database intricacies, learning to search Google can create an opportunity for teaching critical evaluative skills to patrons of the library. Accuracy, authority, objectivity, currency, and coverage are not exclusive to formal library instruction but can instead be incorporated into informal information discovery sessions as well. These teaching moments can be achieved through use of a familiar interface, such as Google or Google Scholar, while working with patrons to filter their results through evaluation and tool selection using the aforementioned operators. So what are these techniques? Are they sequestered in an impenetrable vault? Ten operators which can be easily correlated with information discovery in library databases will be explored here. The following is a brief discussion concerning the ways in which information professionals can use Google to their advantage in instructional settings. Far from being an antiquated idea, information literacy and critical evaluative skills are essential in an age where digital overload has become an unfortunate consequence of access and dissemination of information. The skills librarians possess are, contrarily, even more essential in such an information age. These skills can be applied using variety of different online environments, including Google.

Tilde(~)

One of the least utilized features in Google is the *tilde* (~) operator. This is the often forgotten key usually located in the upper left-hand corner of the keyboard, enabled by pressing shift and the ~/^ key. The tilde functions like a synonym locator in Google. By placing the tilde in front of a word during a search you are asking Google to look for all words it associates as similar to the original word (Google). As an example, if I am searching for “treatment” for back pain I can insert ~*treatment* after the phrase “back pain” to locate information related to medical, pharmaceutical or even alternative medicine therapeutic options for back pain. Using the tilde in Google also allows the searcher to locate information which includes not only the word “treatments”, but also similar words such as therapy, medications and many more. Note that no space is needed between the ~ symbol and the word being searched as a synonym. When adding an “s” to a search term (i.e. *treatments* vs. *treatment*) the number of results retrieved is decreased. Using the tilde in Google is somewhat similar to using a controlled vocabulary or subject heading. Demonstrating a search using the tilde in Google can prove to be a gateway for discussions of the MeSH (medical subject headings) tree of information or how a controlled vocabulary can provide enhanced results for terms with similar meanings in commercial library databases.

Plus/Minus (+/-)

Other operators which can be utilized in Google are the plus (+), minus (-) symbols. These operators look for the inclusion/exclusion of the word searched for in the results (Google). For example when searching for information about cats and dogs the search could read *cats + dogs*. When searching for cats without dogs in the results the search would read *cats - dogs*. Note, once again, there are no spaces between the operator and search term. These operators can also be utilized to limit searches to particular domain names such as *-.com* or *+.net*. For example when looking for statistics about wages from the government we might enter *wages +.gov*. Do not confuse +/- with holding the ctrl key in addition to the +/- key. This is a separate keyboard function which magnifies or reduces the screen size. Teaching the +/- symbols to students corresponds to describing inclusion and exclusion criteria in searching, the most obvious of which is using Boolean operators. These include AND (i.e. +) and NOT (i.e. -). Although many databases include some form of inclusionary searching by using AND automatically there is value in differentiating the search strategy that certain databases utilize to make the correlation to specific results. For instance, in PubMed the database begins by searching the literature for the first search term entered followed by the second term entered and THEN, finally, the two terms together. Bringing topics together at the forefront of the search strategy in databases, therefore, is often an important skill to apply which maximizes efficiency and relevancy of results. The NOT operator (i.e. -) is also a valuable limiter we can demonstrate to patrons which similarly capitalizes on unique search strategies directed by operators. Such an operator is an important aspect of differentiating what elements of the search strategy should be avoided when anticipating the final results, though terms may often be associated with the topic searched.

Intitle

Intitle: is another operator which can be utilized in Google searching. It is self-explanatory as it searches within the title of the work or webpage for the words entered following the operator (“Infographic: Get More Out Of Google”). For example, if a patron were look for *Hamlet* the Google search string would be *intitle:Hamlet*. While *intitle:* hones searches down to the topic sought it may also retrieve information about *Hamlet* which contains the term in the title, not simply the work itself. This search operator delivers results from webpages as well as actual works in Google. As an instructional tool this operator parallels the “title” option in commercial database field searching. *Intitle:* may represent an opportunity in instruction to demonstrate results using the operator and its’ counterpart in Google and a library database. The results of each could be further evaluated for relevancy to the patron’s topic of interest.

Author

As information professionals elementary operators may escape our notice as insignificant. In Google the *author:* operator is one method of filtering which is frequently overlooked. Keep in mind that the *author*

operator is followed directly by the “:” symbol. For example if I were looking for works about and by Emily Dickinson I would enter *author: Dickinson,Emily*. This operator works best when combined with applicable keywords, especially when looking for a specific work by the author (“Infographic: Get More Out Of Google”). Combining the operator *intitle:* and *author:* in these circumstances most efficiently brings up the work of interest. An example of such a search would be *intitle:stop for death author:Dickinson, Emily*. Searching for authors, especially in conjunction with multiple searching techniques is often seen in the field and advanced searching options found within most commercial databases. This provides yet another opportunity to demonstrate the techniques utilized to obtain results in Google in a similar fashion in an appropriate library database. Google does not differentiate between capital letters and lower case for these searches. Quotation marks for titles with multiple words may also be appropriate.

Filetype

Although there are many parallels between Google and subscription-based databases one of the things which distinguishes Google is its ability to comb through the web for relevant content. A component of this searching is locating and organizing file types for retrieval. With the *filetype:* operator you can conduct searches for pdfs, docs, jpegs etc. (“Infographic: Get More Out Of Google”). For example in looking for a picture of William Shakespeare in Google entering *William Shakespeare filetype:jpeg* brings up links to jpeg picture files. An important teaching point from these searches can be made by modeling these searches in commercial databases. An example is PubMed Central’s images searches or even searches for digital media in many library catalogs. The Google search page now contains a filter called “sites with images” located along the left-hand side of the results page which may also be used to locate images. This method of searching is similar to the recently upgraded PubMed searching filters which also provide linked filters along the left-hand side of the results page.

Asterisk (*)

Another important operator which may be familiar to information professionals, but perhaps not an obvious Google function is the “*” symbol. Most databases have the option to broaden keyword searching to include alternate letters or endings, otherwise known as truncation. If a search was done for “dancing”, for example information about dancers, dances, and dance might be overlooked. Using truncation in Google thereby can generate a broader range of results. The Google * symbol can act as more than a truncation symbol. It can also function as a fill in the blank for natural language questions (“Infographic: Get More Out Of Google”). For example, “*George Washington had wooden **” fills in as results for: *George Washington had wooden teeth*. Discussing truncation in Google provides us with an opening to discuss the benefit of expanding our patrons’ search term repertoire. In PUBMED, EBSCO databases, and OVID Medline, for example, users can employ the same technique used in Google to receive results with alternative endings. Make sure to include a space before and after the “*” symbol in Google fill in the blank inquiries. The asterisk functions as both a wildcard AND a truncation symbol-i.e. the location of spaces in the query determine the content of results.

Define

How often are definitions required in reference? From dictionaries to thesauruses these references were, at one time, the bread and butter of the reference desk. Now students choose to simply *Google-it* to find the quick answers they need. But are there more efficient ways to filter through the millions of Google results? Much like “there’s an app for that”; there is also an operator for that. Ironically, *define:* is the operator in Google for obtaining definitions (“Infographic: Get More Out Of Google”). For example when looking for the definition of gastroparesis the search would look like *define:gastroparesis*. The first entry that appears is a working definition for the term. This can bring us to a discussion with our patrons about reference materials, choosing the appropriate medium for the best answer, and reputable sources. We might ask our students in this example whether results from the Mayo clinic or Wikipedia would be considered the best place to look for more information on this definition.

Related

Another seldom used operator in Google is *related:*. This operator allows the searcher to locate websites which are similar to the topic searched for or linked to the website indicated (Google). For example, when looking for information about King Arthur a search could be conducted as *related:"king arthur"*. This functions very similarly to the “find similar” option in databases such as PubMed, OVID, or Ebsco. As with many of the operators or keyboard shortcuts we use, this is simply a more efficient way of getting to results which alleviates multiple click-throughs. For example, demonstrating this operator to patrons provides librarians with an opportunity to discuss “Related articles” in Google Scholar, “Find similar” in OVID or EBSCO databases, or “Related searches” in PubMed. A parallel method of searching in this manner is the “related searches” filter located along the left hand side of the Google results page.

Inurl

Inurl: may initially seem to be a strange addition to the operators previously discussed. This operator searches within a site for the search terms entered (“Infographic: Get More Out Of Google”). For example, in looking for articles about stroke in the New England Journal of Medicine I could enter *stroke inurl:nejm.org*. Note that this operator may also function for more general queries, such as locating a website within a particular domain. In this instance entering *stroke inurl:.org* will locate the search term within the domain specified, in this example, .org. As a teaching moment, the importance of scholarly content can be emphasized. For example, when searching databases patrons often fail to use the filter for scholarly or peer reviewed content. Such filtering can be equated to searching a .com versus a .org site. Such searching can also demonstrate the importance of evaluation of content as authoritative and unbiased. By exploring site-specific content we can teach our patrons how to evaluate websites for standards of information literacy including bias, objectivity, accuracy and coverage (Williams). Once patrons find individual sites they feel are reputable, the *inurl:* operator becomes useful as a means of locating specific information within these sites. There is no space between the colon and website and the www or http portion of the domain is eliminated.

AROUND(n)

The final operator discussed as a shortcut in Google searching is the *AROUND(n)* operator. This operator must be present in upper-case letters, with no space between the parenthesis and the operator term. It functions to locate results within a specified number of words close to one-another. If nothing is found within the indicated number of words then Google simply ranks the results via relevance (Chitu). This search is used for precision to locate words related to one-another. For example you might want to locate a website containing information about cats playing with yarn. For this search you might enter *cats AROUND(3) yarn*, to look for websites containing the word cats within 3 words of yarn. This operator can be related to near searching in databases. Many databases as a default work to locate words next to or “near” those entered as search term. The *AROUND(n)* functionality in Google serves to elevate this the query by giving the searcher a modicum of control over the number of words searched for in proximity to the original term. In addition to teaching users the utility of the “near” operator in Boolean searching, the *AROUND(n)* search in Google can be used to demonstrate the importance of evaluating search terms in context.

Conclusion

It would be easy to dismiss Google as an elementary search tool. As information professionals we often struggle to promote those resources we spend so much time, effort, and funding to gain mastery of, so what benefit can advocating a free search engine provide? We often bemoan patron Google searches, not simply because they are from a corporate entity with questionable intentions, but also because patrons often use Google as a means to avoid developing needed searching and evaluation skills. Despite our warranted misgivings concerning Google, there are ways to use its strengths to our advantage in promoting information literacy. If we can demonstrate how Google operators easily improve relevancy in retrieval, we can similarly show the doppelgangers of such operators which just as easily build better

searches in library databases. The techniques discussed above are just a few of the ways we can use Google as a bridge to connect patrons to more complex library searching and resources. Such basic searching techniques can translate to more complicated commercial database searching, and lay the foundation for a discussion of information synthesis and evaluation. If our goal as information professionals is to encourage lifelong learning and information literacy, why not use every tool available to get there?

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You've got a Friend: Attracting, Welcoming and Supporting the Adult Learner through Tailored Orientations

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Abstract

For the past two years, Forsyth Library at Fort Hays State University has partnered with the Kelly Center, which provides mental health and academic success services, to host an orientation for adult learners. Held in the library, the event includes tips on balancing school with work and family life, study skills, and academic success, and includes brief talks by representatives of other campus entities such as Financial Aid, Student Services, and the Virtual College, as well as a 20 minute library orientation.

Adult students, defined as 25 years of age or older, are contacted via e-mail in the weeks leading up to the event. An online reservation is requested but not mandatory. The event is held in the evening to make it easier for working students to attend, and it is also live-streamed so virtual students can participate. Light refreshments are provided by the library. The video is archived on YouTube and embedded in our Adult Learner LibGuide for later viewing. We have received positive feedback from students for this event and plan to continue it. We are exploring ways to make the event more interactive for both face-to-face and virtual participants.

Introduction

Adult students, 25 years of age and older, are an important and growing segment of the college population in America (see fig. 1). Adults face a more difficult adjustment to college life than younger students. In her book *Never Too Late to Learn*, Vicky Phillips calls this difficult transition “campus shock” and defines it in the following way “Campus Shock is what happens to normal adults when they are taken out of their comfortable everyday roles as parents, bosses, truck drivers, and nurses, and placed into a structured academic environment” (122). Campus and library orientations are an effort, on the part of the University, to make this adjustment easier.

Fort Hays State University is a liberal arts institution located in Hays, Kansas, with a student population of over 12,000, including 8,000 distance students. Mirroring the national trend, adult students make up a significant portion of the student body. In fall 2011, 26% of FHSU undergraduates, approximately 2,900 students were age 25 or older (“Fort Hays State University”).

Why combine the campus and library orientations?

FHSU's Forsyth Library has offered library orientations for several years but had not had a role in the general university orientations that are held at the beginning of each academic year. In 2010 the library began a partnership with the Kelly Center and other campus departments to offer orientations tailored specifically to adult learners. The Kelly Center is named for George A. Kelly, pioneering psychologist and former FHSU faculty member. It provides an array of services designed to help students succeed both personally and academically, including mental health and substance abuse counseling, parenting help, academic success workshops, tutoring, and other assistance. Representatives from Student Affairs, Financial Aid, and the Virtual College also participated in this joint orientation.

Why hold a special orientation for adult learners?

Because adult learners are often trying to balance work, family and their coursework, an orientation including a range of both academic and life skills was needed. Forsyth Library staff saw this as an

opportunity to both provide an important service to the adult student population and strengthen the library's relationship with other campus entities.

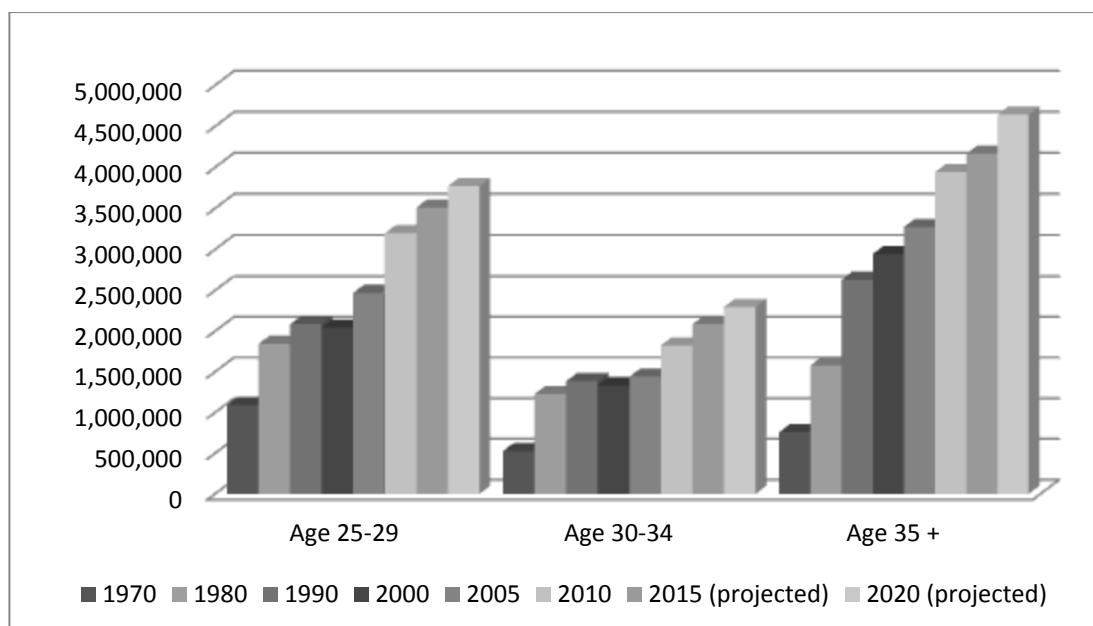


Fig. 1: Adult Students Enrolled in Degree-Granting Institutions, by Age, Selected Years 1970-2020

Source: United States, Dept. of Educ., Inst. of Educ. Sciences, Natl. Center for Educ. Statistics; *Digest of Education Statistics 2011*; US Dept. of Educ.; Sept. 2011; Web; 29 June 2012; table 200.
<http://nces.ed.gov/programs/digest/d11/tables/dt11_200.asp>.

Orientations that teach research skills and increase students' familiarity with the library result in increased library usage (Andaleeb and Simmonds 633; Walsh 28). In particular, library orientations are especially important for adult students. Research has shown that adults learn differently than younger people (Kistler 29) and face different issues when beginning or returning to college (Kasworm, "Emotional Challenges" 28). Students who are unfamiliar with the library, or embarrassed by their lack of knowledge of current library resources, may shy away from coming in or asking for help. Our librarians reported anecdotal evidence that adult students were often frustrated with electronic resources. These students frequently voiced dismay at the realization that the research skills which served them well in the past were now outdated. An orientation targeted specifically to adult learners can address these concerns in a safe environment in which adults are respected and feel more comfortable asking questions, than in a large group of younger students who appear more adept with technology.

Distinctive Needs of the Adult Learner

Adapting to the college environment and a new identity as "student"

Kasworm identifies several emotional challenges that adult learners face, which she frames as "acts of hope" ("Emotional Challenges" 28). She points out that while traditional, younger students view beginning college as the start of a new life away from home and the beginning of adulthood, adult learners have established lives and must add the new identity of "student" to their already complex roles as workers, spouses, parents or caretakers. If they are returning to school after years away, they may have memories of past difficulties in college that make their return especially anxiety-provoking. Alternatively, confidence arising from previous successes may be destroyed when they encounter the new challenges of current academic life. Adult students may have decided to pursue a college degree due to some life change, such as job loss or divorce, and must navigate these issues while negotiating the many changes and hurdles they face as a student: "Given these emotional conditions, one of the first acts of hope for the adult entering higher education is to purposefully decide to become a college student" (Kasworm, "Emotional Challenges" 28).

Kasworm's research also indicates that adult learners are frequently concerned with adapting to college life and question their ability to succeed academically ("Adult Student Identity" 9), but encouragement and support can ease these concerns. Kasworm writes "Their initial entry is buoyed with special positive validation from other older students and faculty, as well as friendship and assistance from select younger students and collegiate staff" ("Emotional Challenges" 29). Such validation and assistance can be offered through the adult learner orientation. The FHSU library event was tailored to address the steps involved in developing the "student" mindset, adapting to the campus environment and meeting the demands of college life.

Characteristics of Adult Learners

Kistler has summarized several core characteristics of adult learners (28-30), including

- The need to know
- Learner's self-concept
- Role of experience

The "need to know" refers to adult students' need to understand the reason for learning something. Whereas younger students may be willing to learn whatever is presented by the instructor, adults want to know how a concept can help them solve a real-world problem. Though some younger students may have demanding schedules, this is especially true for older students, who loathe spending time and energy learning something unless they are convinced it is worthwhile. "Typically in a learning environment, adults will invest a considerable amount of time weighing the benefits of learning something against the consequences of not learning it" (Kistler 29).

The "Learner's Self-Concept and the Role of Experience" expresses the adult learners need to have their experience and status recognized and respected and as a consequence may resent rigid classroom structures and expectations. The Rochester Institute of Technology advises its online instructors of adult learners to be flexible, stating "Do not expect [adult] learners to necessarily agree with your plan for the course" (RIT).

Adults' life experience presents both advantages and disadvantages in their new roles as students. Adult students have much to contribute to class discussions and may see the real-world application of what they're learning more readily than younger students. However, their experience has led to firm beliefs and formed their identities, and they may be reluctant to consider new ideas. Instructors need to balance respecting and valuing their experiences (and therefore their identity) with introducing new ideas. Kistler advises "Putting learners in real or simulated scenarios can help them become aware of their own gaps in knowledge" (29). The FHSU library adult student orientation focused on real-world examples demonstrating both the need for, and how to apply study skills, utilizing campus support systems and accessing library resources.

Planning and Marketing the Orientation

Haverkamp recommends three essential topics be addressed in an adult learner orientation: 1) navigating the academic environment 2) understanding the self and 3) developing skills for learning (5). Our orientation covered these topics through presentations on

- The wide array of student services and how to access them
- Information about Blackboard and the Virtual College
- Campus tours and "class crawls" that help students locate their classrooms
- Financial Aid
- Study Skills, time management, and self-care
- Technology help and equipment checkout procedures
- Navigating the Library's web site and accessing Library Resources both on and off-campus

A special LibGuide online research guide was created for adult learners and used as the basis for the library portion of the orientation; the guide was also used as a repository for information covered in the

other presentations (Wade). In addition to content common to all FHSU library guides, such as how to find books and articles, citation styles, requesting materials, and search tutorials, the “Adult Learners” guide includes links to student services, campus offices, the Virtual College, test guides, and e-books on study skills and college success. The orientation video is embedded in this guide and is also available on the FHSU YouTube channel (Tincknell).

The orientation was marketed to adult students through e-mails. An online registration was requested but not required. The event was held on a weekday evening, about one week prior to the start of classes. Staff participants included representatives from Student Affairs, the Kelly Center, the Virtual College, Academic Affairs, the Library and the Learning Commons. The session was filmed and live-streamed so distance students could also participate during and after the live session.

Eleven on-campus students attended the event. Although the number of distance students who watched the live-stream is unknown, the YouTube video has been viewed 125 times.

Assessment

A brief survey with nine Likert-scale questions was administered to attendees (see table 1). 10 students completed the assessment. All respondents indicated they found the orientation useful and were glad they attended (see table 2).

Table 1
Fall 2011 Adult Learner Orientation Evaluation Form

FORT HAYS STATE UNIVERSITY									
FALL 2011 ADULT LEARNER ORIENTATION EVALUATION									
Circle the appropriate number for each item, which best indicates your degree of agreement.									
4— <i>Strongly Agree</i>		3— <i>Agree</i>		2— <i>Disagree</i>		1— <i>Strongly Disagree</i>		N/A— <i>Not Applicable</i>	
Registration & Guest Presentation									
4	3	2	1	N/A	1.	Registration and check-in procedures were performed smoothly and efficiently.			
4	3	2	1	N/A	2.	The information presented was valuable.			
4	3	2	1	N/A	3.	The information shared by the guest speakers was valuable.			
4	3	2	1	N/A	4.	The time allotted for each segment was adequate.			
Overall Program									
4	3	2	1	N/A	5.	I gained information about campus resources available to assist me.			
4	3	2	1	N/A	6.	I gained information regarding academic expectations for college success, including time management and balancing work / class/family.			
4	3	2	1	N/A	7.	I gained information about library services and resources and how to access them.			
4	3	2	1	N/A	8.	Overall, the Adult Learner Orientation program was helpful and I am glad I attended.			
4	3	2	1	N/A	9.	The Adult Learner Orientation met my expectations.			

Table 2
Fall 2011 Adult Learner Orientation Evaluation Results

Question	#1	#2	#3	#4	#5	#6	#7	#8	#9
Respondent 1	3	4	4	3	4	3	4	4	4
R. 2	4	4	4	4	4	4	4	4	4
R. 3	4	3	3	3	3	3	3	3	3
R. 4	4	3	3	3	3	3	3	3	3
R.5	4	3	3	3	3	3	3	3	3
R.6	4	3	4	4	3	3	4	3	3
R.7	3	4	4	4	4	4	4	4	4
R.8	4	4	4	4	4	4	4	4	4
R.9	4	4	4	4	4	4	4	4	4
R.10	4	4	4	4	4	4	4	4	4
Average	3.80	3.60	3.70	3.60	3.60	3.50	3.70	3.60	3.60

Legend: 4: Strongly Agree 3: Agree 2: Disagree 1: Strongly Disagree 5: Not applicable

Conclusion

Despite a small on-campus turnout, we view the Adult Learner Orientation as successful, and plan to continue facilitating this event. As recommended in Singer's research, we may offer childcare and invite an experienced adult student to share his/her experiences at FHSU and offer advice (65). Given adult learners' preference for self-direction and input, a survey sent to potential attendees to find out what they would like to learn during the orientation could be beneficial. Offering the orientation more than once, perhaps at different times of day or on the weekend, would allow more students to attend. Follow-up contacts from FHSU librarians a few weeks into the semester would give provide an opportunity to offer more help and encouragement, and gain insight into what adult students need as their courses progress and assignments become due. One idea that has been discussed is the assignment of a "personal librarian" to each orientation attendee, to provide both research help and a friendly face on campus.

Future orientations will need to involve distance students as active participants. Online events that are more interactive, or focused solely on distance students could be more effective. Activities that encourage a feeling of connection to FHSU campus personnel and involvement in campus life can help alleviate the sense of isolation that online coursework can cause, and decrease the likelihood that students will drop out. Park and Choi note that, while the reasons for adult students dropping out of online study are complex, a lack of organizational support for their learning is an important cause (216). Surveys or other forms of assessment of distance students' orientation needs and satisfaction with orientation content are also needed.

Joint campus/library orientations can benefit not only the learner, but also the staff involved. This partnership improved relations between library and campus staff and helped us gain a clearer understanding and appreciation of the important services provided by various offices, and reinforced our commitment to work together toward our common goal: serving students.

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Library Outreach through One Book One Community

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Abstract

One Book One Community projects have been successful on campuses, in cities, and entire states for promoting learning through the shared reading of a single text. After considering the benefits of such programs, the University of Mississippi's Library Outreach Committee worked to create a One Book initiative from the ground up in August 2010. The concept quickly gained favor with faculty and other departments on campus, as well as with the public library and local high school. Consistent efforts to push the project University-wide have been widely supported, yet slowly implemented into a curriculum. This study presents the methods used by the Chair of the Library Outreach Committee to establish the One Book One Community project, and advice for librarians pursuing literacy programs at other academic institutions. The literature review includes findings from peer institutions using One Book and other common reading programs.

Review of Literature

The One Book program began in 1998, when librarian Nancy Pearl from the Washington Center for the Book, part of the Seattle Public Library, created "If All Seattle Read the Same Book." The initial selected work was Russell Banks' *The Sweet Hereafter*. "The Library of Congress provides links to nearly 400 [similar] programs in all states, the District of Columbia, and other multi-state, regional, and national events, including programs in Australia, Canada, and the United Kingdom" (Thomas 29).

In 2006, The National Endowment for the Arts (NEA) partnered with the Institute of Museum and Library Services (IMLS) to create the nationwide reading program, "The Big Read." The program was created to foster the One Book experience. Initially having 10 communities reading 4 books, the Big Read now has over 400 communities hosting events related to a selection of books from classic authors (Krake 6).

The One Book and Big Read programs integrate cultural events, films, discussions, and forums that explore themes from a singular text in ways that deepen the reading experience for a diverse targeted audience, usually encompassing a school, city, or university. "OBOC in Wilmington, North Carolina, provides another example of a program initiated and coordinated by an academic library in collaboration with a community college library, a public library, and a local high school" (Palmer and Peterson 53-4). Like the author, the academic library created a common reading project between the collegial community and town citizens to provide a beneficial experience for all.

Another example is the East Baton Rouge Parish Library. For the Big Read: One Book/One Community series each spring, other parish library systems, colleges and universities, public, private and parochial schools, churches and community organizations, and private businesses are invited to participate in whatever way and to whatever level they have desired (Stein 14).

Adopting a One Book program on a college campus can foster community among the faculty, libraries, students, and administration. "Projects such as 'One Book, One Community' enrich and extend the WSSU learning environment and illustrate to faculty that the library is an innovative campus agency" (Rodney 155). This has been successfully done at many places, including the established programs of East Lansing – Michigan State University and Winston-Salem State University. Other common reading schools include the First-Year Reading Experience at the University of South Carolina, Miami University

of Ohio's Summer Reading Program, and The Big Read which is incorporated at the University of Southern Mississippi and many other colleges and towns.

"Students are often unaware of the many research resources university libraries provide, and if faculty members do not include library/research activities in their course syllabus, academic libraries can easily become storehouses rather than centers of learning" (Rodney 154). In *Common Reading Programs: Going Beyond the Book*, Laufgraben mentions Kuh, Douglas, Lund, and Ramin-Gyurnek's nine institutional conditions that encourage students to make use of out-of-class activities to enhance learning:

- 1) Clear, coherent, and consistently expressed educational purposes
- 2) An institutional philosophy that embraces a holistic view of talent development
- 3) Complementary institutional policies and practices congruent with students' characteristics and needs
- 4) High, clear expectations for student performance
- 5) Use of effective teaching approaches
- 6) Systematic assessment of student performance and institutional environments, policies and practices
- 7) Ample opportunities for student involvement in educationally purposeful out-of-class activities
- 8) Human-scale settings characterized by ethics of membership and care
- 9) An ethos of learning that pervades all aspects of the institution (Laufgraben 3-4).

One Book One Community

After realizing the benefits of creating a community-wide reading program, the library's outreach committee focused on the One Book model provided by ALA's Public Programs Office.

The organization provides a national model and guide for libraries wanting to start up and run similar One Book programs so library officials do not have to start from scratch if they choose to sponsor a "One Book" program.

The committee worked with several campus and community partners to establish a One Book program in order to create a learning community through the shared reading of a single text. The 2010 read was Dave Isay's *Listening is an Act of Love*. For the first year, the public library purchased ten copies of the book, while the university library purchased eleven copies. The project's total amount was \$11,980, with the university library's contribution at only \$280 or 2 percent. The university supplied \$7,500 or 63 percent, a grant from the Mississippi Humanities Council for \$4,000 made up 33 percent, and \$200 from a local bookstore, restaurant, and public library added another 2 percent.

The library's outreach committee ran all of the activities and coordinated nine events, including a visit from the editor, who spoke at three of the events. Because of the success of the community project, the university became more involved in the next year. The Office of Student Affairs, Center for Writing and Rhetoric, and First Year Experience coordinator approached the chair of the library's outreach committee with an offer to develop a new program that involved all of these groups.

Common Reading Experience

For 2011, the University extended efforts for an integrated reading program by establishing the UM Common Reading Experience (CRE). This experience was led by the Outreach Librarian and the Director of the Center for Writing and Rhetoric. The Division of Student Affairs and Office of the Provost facilitated the planning of events, distribution of books, and all associated costs of the program.

The CRE molded the goals and initiatives created by the Freshman Year Experience university course entitled EDHE 105 and One Book One Community into an exciting opportunity for students, teachers, and neighbors. A seven member committee including the Library's Outreach Librarian chose the award winning, nationwide best seller, *The Immortal Life of Henrietta Lacks*, by Rebecca Skloot as the common read. At that time, Skloot's book was the inspiration for over fifty college, university, and One Book programs nationwide. The author came to the August Convocation ceremony as a guest speaker and

signed books at the reception following the event. This event was simulcast to the University's Medical Center since many of those students and faculty could not attend the event at the main campus.

By reading, writing, and learning together through the shared experience of the UM Common Reading Experience, student learning goals were:

- 1) Develop critical thinking, reading, writing, and research skills and abilities
- 2) Gain an emerging sense of confidence as learners, thinkers, readers, and writers
- 3) Develop a sense of community among peers, neighbors, and instructors
- 4) Develop connections among ideas, experiences, disciplines, and academic and personal goals
- 5) Relate the issues raised by the common book to their lives as new or returning students.

Every freshman and full time faculty member at the main campus received a copy of the book during summer orientation to read before the fall semester began. In addition, several copies of the book were sent to branch campuses, other instructors, and the public library. Instructors in the Center for Writing and Rhetoric, Freshman Year Experience, the Honors College, the Provost Scholars Program, the Department of Nursing, and others used the book in 15 courses taught by over 120 faculty and staff. They incorporated topics, assignments, and activities associated with the book.

For the first time, the University's Medical Campus, located in another part of the state, joined the program and adopted the book for their students. Fifteen events were coordinated and held on and off campus, including the public library. One event that carried over from the previous year was an essay contest that was open to anyone at all of the UM campuses as well as the two local high schools in Oxford. The prize was \$150 for one winner from each campus and each high school. Winners attended a dinner in their honor and had their essays featured on the Center for Writing and Rhetoric's website. Events were promoted mainly via social media, online communication within the university community, promotional videos and press releases, print posters for individual events, and word of mouth. All events were considered successful based on informal feedback and participation from attendees and speakers, number of attendees, and the variety of events offered. Table 1 provides a list of events.

In addition to the events listed, the CRE Committee created a list of six faculty members to serve as classroom speakers during the fall semester. Each speaker prepared a 30 minute talk to spark discussion and inquiry based on the numerous themes of book. Speakers helped students think about the content and issues of Henrietta Lacks' story through a particular disciplinary lens; for many first-year students this was an introduction to the speaker's discipline. Speakers were encouraged to focus on the "big questions" presented through the text and attempt to connect how their discipline approaches these problems in a way which enhances the students' world views. Instructors who had adopted the book in a course were encouraged to contact one of these speakers and invite them to class. Speakers were asked to give no more than 25 speaking engagements during fall semester. Many speakers reached this limit over the semester.

Conclusion

One Book programs are excellent ways for libraries to combine resources with other groups in their communities. Schools, libraries, and other groups that promote reading and collaboration can build up an experience for a large and diverse group of citizens by pooling resources and embracing common goals. "As in Seattle, OBOC programs fulfill the universal mission of encouraging reading, but they are also an excellent way for libraries to further their outreach goals by working with other agencies and their constituencies" (Palmer and Peterson 52).

Table 1

2011 Common Reading Experience Events	Departments Hosting Events
Rebecca Skloot at Freshman Convocation and Book Signing	Office of Student Affairs and Office of the Provost
The Way of All Flesh: A Film about Henrietta Lacks	University Libraries, 2 screenings

Panel Discussion: Medical Ethics, Race, and the Black Community	African American Studies
Use of HeLa and Other Cancer Cell Lines on the Ole Miss Campus	Pharmacology
HeLa: A Staged Reading	Theatre Arts
HeLa Cells: A Biological Perspective	Biology
Voodoo Theory: Why the Lacks Family Says Things that Make You Scratch Your Head	Sociology and African American Studies
Modern Dance: Interpretation of Henrietta Lacks	Theatre Arts, 4 events
CRE Essay Contest	Center for Writing and Rhetoric, University Libraries, Center for Excellence in Teaching Literacy, and Office of Outreach
Books N Lunch on teaching <i>The Immortal Life of Henrietta Lacks</i> and student responses	Lafayette County and Oxford Public Library
Graduate Women's Reading Group Book Discussion	Sarah Isom Center for Women and Gender Studies

The concept of a common reading experience quickly gained favor with the university's faculty and other departments on campus, as well as with the public library and local high schools. Consistent efforts to push the project University-wide have been widely supported as plans for the 2012 Common Read, Tom Franklin's award-winning novel *Crooked Letter, Crooked Letter* demonstrate. Events are scheduled on and off campus, including another essay contest for students at the branch campuses and high schools. Because the author is a faculty member at the university, he will be able to attend several events to interact with the diverse audiences of the university and town communities.

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The Zombie's Guide to Information Literacy: Reaching College Students in Non-traditional Ways

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Abstract

Over the past three years, the librarians at Central Methodist University have embarked on a mission to increase both usage and information literacy skills amongst the undergraduate student population at the brick and mortar library. Usage of electronic resources continued to grow, but the library space was underutilized. After completing surveys and focus groups with students, the library faculty focused their attention on programming to build skills and awareness of the library's collections and services. "Big Game" events, focusing on ghost stories, zombies, and steam punk, have been held the past three years to test library skills in a competition setting. Likewise, working with the English Department, research assignments were crafted to reflect student interests in pop culture topics, without losing the research components so important to building information literacy skills. As these activities have changed the culture of the Central Methodist library, circulation and traffic have steadily risen, and information literacy skills have improved. This session will give practical examples, assignments, and assessment techniques, as well as tips on holding your own zombie war.

A Reference Services Voyage: How a Small Academic Library Doubled its Reference Statistics in One Year

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Abstract

A small university library in the Midwest traveled on a journey of rediscovery this past year focusing on what it means to provide reference and instruction services with surprising and dramatic results. The Public Services Department revamped its reference area, changed its service desk, instruction program, and website, increased social media usage, added QR codes, text a call number service feature, and a chat widget to its library catalog as well as multiple locations on its website. The changes resulted in a doubling of reference transactions and the reference department became more vitalized and energized as a hub of student activity in the library. Instruction requests have increased and online chats with students have become the norm. An assessment of current and past decisions and statistics will be shared, specific staff training changes implemented will be highlighted, communication strategies for reference staff using technology will be offered, and insights into how to increase reference interactions will be discussed during the session. The journey to a better reference and instruction program was undertaken and the results were successful, but the voyage continues with new technology, new resources, new questions, and new students all over in 2013!

E-book Metadata in ILS and Discovery Tools

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Abstract

The fast-growing e-book collections in libraries and the quality of metadata from various e-book vendors present challenges for how libraries deliver comprehensive e-book management and access. Online public access catalogs (OPAC) and web-scale discovery systems are two major channels of locating e-books in library collections. This paper focuses on the quality issue of e-book metadata and solutions for improving the quality of metadata as well as the impact of discovery tools on e-book access.

The authors also explore the practice of adding e-book metadata into the library online catalogs to provide direct access. Enhancing and maintaining library e-book metadata in an ILS is essential to enable precision in terms of discovery. Bad DOI links, duplicated records, issues of quality e-book MARC records from vendors? Sound familiar? The authors discuss the challenges that have evolved in batch processing e-book metadata at a mid-size academic library, the University of Arkansas at Little Rock. They illustrate the workflow for the batch process using the free software, MarcEdit, and maintenance in the Innovative Millennium Integrated library system. The paper covers tips, tricks and lessons for batch loading e-book MARC records: enhancing records using tools that are available for batch loading; customizing load tables; and using functions provided by Innovative Millennium to clean up records. The authors share various strategies for solving different issues of e-book metadata and include detailed screen shots and step by step workflow.

It is arguable that the OPAC is the best interface for e-books. It is still too early to declare that the management of e-book metadata will move away from the ILS and into web-scale discovery systems. What tool is better for e-book discovery, the OPAC or a web-scale discovery system? How does the discovery system impact e-book access? Based on our experience of implementing the discovery system, Summon, the authors discuss the challenges of Summon in locating e-books and how we adjust workflow of batch processing e-books.

Introduction

The fast-growing e-book collections in libraries, diversity of e-book business models and the quality of metadata from various e-book vendors present challenges for how libraries deliver comprehensive e-book management and access. Although subscribed eBook collections can be viewed, searched or download from vendor websites or their knowledgebases, integrating e-book MARC records into the integrated library system (ILS) to provide title-level access through the OPAC is a common practice. In addition to OPAC, web-scale discovery systems provide an extra avenue for access to electronic resources, including e-books. This paper focuses on the quality issue of e-book metadata and solutions for improving the quality of metadata as well as the impact of discovery tools on the workflow of processing e-book metadata in an academic setting, Ottenheimer Library, University of Arkansas at Little Rock. The aim of this paper is to explore the best practice of adding e-book metadata into library online catalogs and

discovery systems to provide direct access, as well as enhancing and maintaining library e-book metadata to enable precision.

The growing e-book market raises questions regarding access. Many libraries use their catalogs as a conduit to e-books because of user expectations and because vendors offer free MARC records. The authors explore the challenges associated with these records including information quality and cataloging workload, and provide a checklist regarding these issues.

Literature Review

The growing e-book market and rapid increase of e-book in libraries raise questions regarding quality of e-book metadata. Because of the availability of e-book records from vendor, OCLC, or other channels, adding e-book records in the library catalog is a natural choice for many libraries. In addition to the library catalog, resource discovery systems, which can extend the range of the library catalog, can improve the visibility of the availability of e-books in libraries. Unlike print books which usually need individual cataloging, e-books involve larger scale batch cataloging and attention to maintenance after loading records. A review of the literature shows there is limited research on batch cataloging e-book records and management of vendor-provided e-book metadata. There is less research on e-book metadata in discovery systems or how a discovery system impacts the workflow of processing e-book metadata.

Martin (45) describe the challenges and issues that should be considered when libraries catalog e-books. Mugridge and Edmunds (53) share batchloading workflow at Pennsylvania State University Libraries and varied issues related to the batch processing electronic and microform collections.

Wu and Mitchell (164) discuss the quality issues of vendor supplied e-book records and the impact of provider-neutral records for e-book cataloging. They present the workflow for batch cataloging at the University of Houston Libraries (UHL) using MarcEdit, and ongoing maintenance of records. They also suggest the use of an electronic resources knowledgebase as the new direction in large-scale management of e-books at UHL.

Grigson outlined options to make e-book collections visible and discussed the limitations and benefits of adding records in the library catalog. She addressed search engines, shared catalogs, and discovery systems as alternative options for improving the visibility of e-books. She also sketched checklists of issues that should be considered when using supplied MARC records, adding records, deleting records and updating records (141-62).

Young surveys the workload, tools, practices and problems of batch cataloging. Young presents the landscape related to batch cataloging practices and also summarizes uncertain attitudes toward the impact of discovery systems on the practice of e-book batch cataloging.

Mugridge and Edmunds (155-70) make the most recent contribution to the topic of batch cataloging e-book metadata, although their research focuses on the general impact of batch loading records in large academic and research libraries. Their survey provides a thorough overview of batch loading activities, including staffing, budgets, scope, workflow, management, quality standards, information technology support, collaborative efforts and assessment.

E-book Collections at UALR

Ottenheimer Library at the University of Arkansas at Little Rock is a medium size academic library. The library started purchasing e-books in 1999 from ebrary. Currently, the collection contains about 30,000 e-books titles, and more than 35,000 e-journals. Most of the e-book titles are purchased by packages, and a small portion are single title purchasing. The library is inclined to get more e-books through single-title purchase in the future. The two e-books selection models have different implications for cataloging workflow and record management. The workflow of the single-title purchase is very close to a firm-order purchase on the acquisitions side but brings more challenges in the cataloging unit because the resources of records to two different units might be different. As a result, individual records need to be checked and as an extra step, the old records loaded during the order step need to be overlaid by new records

loaded by cataloging staff. The record load and maintenance of e-book purchasing in batch is within the cataloging unit workflow.

Almost all Ottenheimer Library e-book records are either vendor supplied or are third party provided, independent of how they were purchased. The quality of vendor records varies. In order to reduce the burden on maintenance, the library has pursued various solutions to managing e-book cataloging and access. Since 2009, the library switched Netlibrary and Springer E-book from vendor supplied record services to an OCLC collection sets subscription. Recently, the library expanded this service to EBSCO e-books. Because of the delay of delivery of MARC records by some vendors, we also rely on OCLC Connexion for timely access to e-book records. OCLC Connexion is also the source of the library's e-book metadata for free e-book projects, such as National Academies Press (NAP) free e-book collection. Since the records come from different resources with mixed quality, the workload related to the editing and standardizing of records varies.

Managing E-book Metadata in ILS

E-book Metadata Challenges and Local Practice

A diversity of providers and content types exist today, presenting a variety of challenges for e-book cataloging and cataloging maintenance. The quality of vendor-supplied records and OCLC collection sets varies and is inconsistent. Vendor-supplied records could be generic records without detailed subject heading, with inconsistent authority control, not provider neutral or have even incorrect or incomplete MARC records. Here are just a few of the challenges:

- Unstable, incorrect, invalid (or without) URLs
- Multiple URLs
- Restricted URLs
- Duplicated records which could be from the same vendor or different vendors
- Inconsistent control numbers
- Subject headings that need to be edited

These are some common challenges of e-book metadata. To make e-book metadata consistent and easier to be identified, the authors follow the local practice which includes single record policy to eliminate the duplication, standardization of 856 subfield z with titles.

Batch processing e-book metadata is a way to standardize records from different sources. Batch process is also efficient in avoiding duplicate records and improving the accessibility of e-records. Because of standardized policy, all e-book metadata needs to be manipulated before loading. Depending on the quality, some may need more work, whereas others need comparatively less work. Even with OCLC collection sets, we still have to make some changes, such as adding a proxy string for off campus use, removing extra links or customizing 856 subfield z information, or adding item records to each e-book bibliographic record.

Batch Processing E-book Metadata in ILS

Due to large sets of electronic resources bibliographic records that need to be loaded in the catalog, batch cataloging has become an increasingly common practice in libraries. The batch load tool the library is currently using is MarcEdit, a freely downloaded Metadata editing tool by Terry Reese from Oregon State University. With it, errors can be identified in batch view and corrected prior with the assisting of batch process tools. Millennium load table is also an efficient tool for batch process records. The authors customized the e-book load table which helps add item records, avoid duplication by overlaying records with the same MARC field of 001, 010, 020, or 035. Heading report or global update functions provided by ILS (Millennium Innovative) are used for post-load maintenance.

Here is the illustration of the batch loading process (see fig.1):

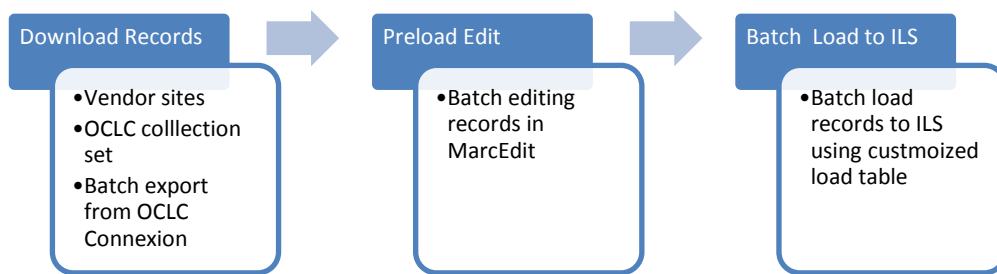


Fig 1. The batch loading workflow.

As shown in the graph, the process of batch loading e-records includes 3 steps. First, retrieve records from the OCLC Collection set, OCLC Connexion or vendor website, or batch export from OCLC Connexion. Second, edit records in batch mode using MarcEdit. The third step is to load the records into the local Millennium catalog using a designated load table in the DATA EXCHANGE module for batch records. Step 1 and 2 are pretty straightforward but Step 3 requires more work during this process.

The list of functions of MarcEdit the authors regularly use are:

1. “Field count” and “record deduplication.” Counting fields, especially 856 fields helps us identify URL problems. The authors know there are multiple 856 fields in some records if the number of 856 fields exceeds the actual number of records received from providers; on the other hand, if the number of 856 fields equal less than the total number of records, some records may not have links. To ensure that every record has a unique ID, the authors use the MarcEdit “Field Count” function to verify that every record in the set contains only one identifier in the 001. If the occurrence of field 001 is less than the number of records, a new identifier must be created. If all records have field “001,” the “Record Deduplication” function will be performed to ensure that no duplicate match points exist.
2. “Validate” Syntax errors appear in vendor-supplied records occasionally. One invalid character in the record can cause the load to fail when imported to Millennium. Incorrect indicators and typographical errors can result in improper indexing or poor search results. The authors use the MarcEdit “Validate” function to identify these prior to compiling the MARC file.
3. “Find,” “replace” and “edit subfield.” The records require customization of URLs, such as deleting invalid or restricted URLs, adding proxy strings, or inserting standardized link text. “Edit subfield” is an efficient approach.

The screenshot shows how MarcEdit is used to customize URLs in Springer record sets. The original records we receive from the OCLC collection set have incomplete proxy strings “dox.doi.org” (see fig. 2). The “Find” function in MarcEdit locates all the incomplete proxy strings that need replacement with completed proxy strings, such as “0-dx.doi.org.iii-server.ualr.edu” (see fig. 3).

4. “Add/delete field” and “swap field.” Due to the inconsistent information in the 856 subfield z in the e-book records, the authors decided to use title information to replace the original text. They also use “add field” function in MarcEdit to add the 949 field which is an item records generated field (see fig. 4).

Global update is used when errors were not discovered in the process of preload, or changes were not made during the process. Global update might also be used when a local practice changes. For example, the authors made a few changes using the global update function when e-book load procedures were adjusted after the implementation of Summon. The Millennium URL checker is very functional in finding bad links. “Heading Reports” helps to identified duplicated records.

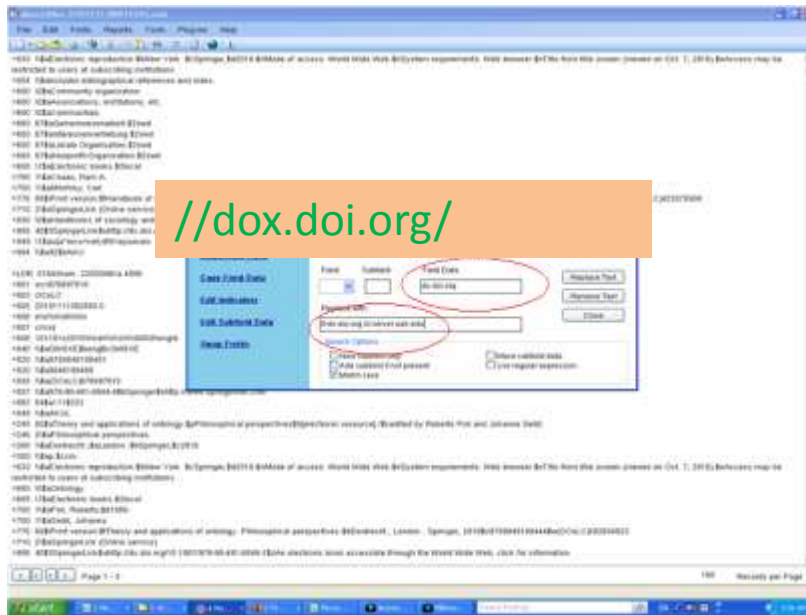


Fig. 3. Replace with correct proxy string.

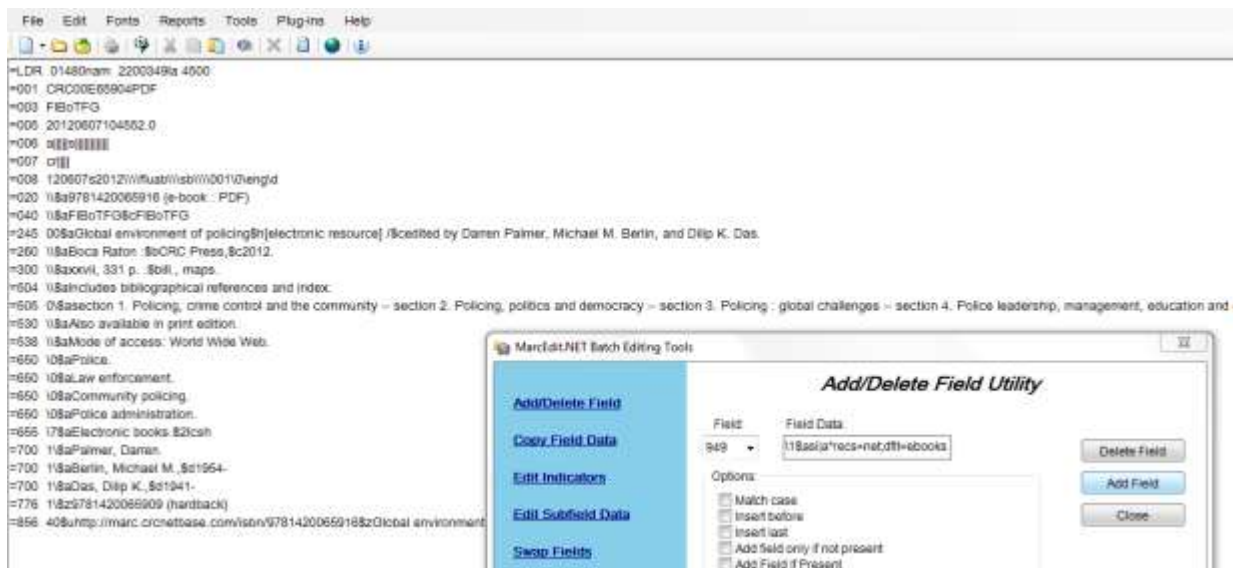


Fig. 4. Add 949 field to generate item records.

The authors mainly use the Millennium provided function to perform post load clean-up (see fig. 5).

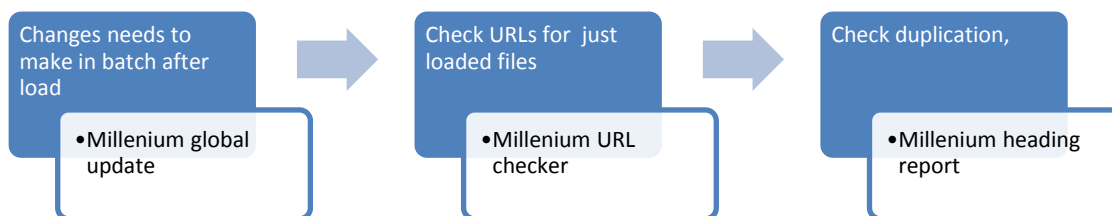


Fig. 5. Post load maintenance workflow.

E-book Metadata in Web-scale Discovery System (Summon)

Impact of Discovery Tool on E-book Discovery

Many libraries are employing web-scale discovery layers, such as Serials Solutions' Summon, EBSCO's EBSCO Discovery Service (EDS), Ex Libris' Primo Central, OCLC's WorldCat Local, and other open source discovery services. Because e-book metadata are indexed in the discovery tools, the authors expected this would greatly impact e-book metadata workflow. In 2011, a **JISC funded project "The Role of Metadata in the Discovery, Selection and Acquisition of e-Books"** surveyed 11 academic libraries in Britain. To explore metadata issues and impact of discovery tools, the question "Are you moving towards a library discovery service that includes ebooks" was included in the questionnaire. Results show that although discovery tools are an alternative option for presenting e-books, they do not have significant impact on e-book metadata process workflow. Philip Young stated that "[d]iscovery platforms have the potential to influence batch cataloging practice due to their ability to collocate resources automatically, and through their associated knowledgebases." (10) His survey in 2011 touched the changes in batch cataloging brought by discovery services. Surprisingly, 27% of the respondents were not aware of the impact of discovery tools on batch cataloging practices. 16% respondents believed there was no change. The results of the two surveys indicate the impact of the discovery services on e-book metadata is not fully understood and that the topic needs to be explored further.

Ottenhemer Library at UALR chose the Serials Solutions' Summon discovery layer, and it has been live for a year. The library continues to load e-book metadata to the library catalog and index e-book metadata in Summon. The two are the primary search interfaces for our e-book collections. Although the implementation of discovery tool does not change the practice of our e-book metadata process completely, the authors do constantly make revisions on the e-book loading workflow process. Here are some highlights of revision.

1. Add item records for all e-book bibliographic records and change status of e-book. Upon checking sample records and collecting feedback, the authors identified some confusion on the e-book display in Summon. For example, the status of e-books were consistent: most e-books showed "on internet", while some showed "library use only. When the authors worked on the data mapping phrase of Summon, we learned the status and location of materials are mapped in the item records. The confusion of the e-book status was caused by a large amount of old e-book records without an item record attached. The authors decided to add item records to all e-book bibliographic records.
2. Delete call number in the MARC fields of e-book records. In the initial phrase of Summon implementation, public services staff and users complained about the LC call number display in e-book records and all call number fields were deleted.
3. Change record deletion procedure. Since the implementation of Summon, updates including "new records" and "delete records" are loaded into Summon on regularly basis. With the library catalog as the single discovery route, e-book records in the "delete lists" sent by vendor were deleted. With the advent of Summon, this practice was discontinued since after using Summon, the list of "delete records" would not be able to be sent to Summon. Therefore, the records deletion procedure was revised. Bibliographic records were marked with a "delete code" for those titles needing to be removed before sending them to Summon. After the "delete list" was sent to Summon and updated then the records were deleted from library catalog.

Conclusion

Batch cataloging e-book metadata has proved to be an inexpensive and efficient approach to provide access in the University of Arkansas at Little Rock library in the past decade. During this process, the library learned from experience that the e-book cataloging workflow closely connects to the way e-book titles are purchased. E-books purchased title by title are handled differently from those purchased by packages. The library is moving towards purchasing e-books title by title and streamlining workflow for single purchased e-book purchasing and cataloging to provide consistent and timely access to e-books via the OPAC and the discovery service "One Search."

The newly employed web-scale platform, Summon, opens an extra channel to discovery and access. In the meantime, it has changed the handling of e-book metadata. These changes are enhanced based on the need of discovery services. We are not radical enough to declare that “the management of e-book metadata will move away from the local library systems and into the new cloud based ‘web scale’ library centric discovery services” (“Patron Driven Acquisitions” 13-14). We still rely heavily on the library OPAC to provide access to the collection, including e-books. With further exploration of the function of the web-scale services, the library will have a deeper understand of the impact of this service on e-book metadata and best practices for the management of e-book metadata.

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Streamlined Workflow + McNaughton = Success!

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Abstract

This paper shows how Indiana State University's library readers have benefitted from the collaborative efforts of the Reference and Technical Services departments. Cooperation between the two departments has resulted in faster access to a heavily used collection of the latest fiction and nonfiction browsing materials and a more efficient, productive workflow process in Technical Services. ISU Library's popular browsing collection is a big driver for circulation statistics. When a decision was made to initiate a contract with a vendor to begin leasing a browsing collection of the latest fiction and nonfiction titles--beginning with books and moving to other formats--the decision was largely due to staff cuts and a shrinking budget which made it almost impossible for the Reference and Technical Services departments to keep doing business as usual. In only one year, Technical Services staff was reduced by ten, including a rapid copy cataloger, a library assistant in charge of receiving and rapid cataloging, and the library assistant in charge of book processing. The Reference Instruction faculty was affected by resignations and sabbaticals that drastically reduced time that had previously been available for selecting popular fiction and nonfiction titles for the browsing collection. The browsing materials allotment was reduced in accordance with the library's shrinking budget, which resulted in fewer titles being ordered. From selection to acquisitions to processing, the workflow had to be streamlined while maintaining focus on what was best for library users. The solution to staff cuts and a shrinking budget results from the collaboration between Reference and Technical Services. Reference subject liaisons, who also perform collection development duties, are an important part of the plan. The new workflow ensures that library users receive timely access to the Browsing Collection's latest acquisitions. The result is an academic library's success story.

The Problem

In 2010, Indiana State University's Cunningham Memorial Library faced increased demands for popular reading materials, but another, more serious, challenge took precedence. In December, 2009, with tax revenues far below projections, Indiana Governor Mitch Daniels ordered a \$150 million cut in higher education funding. Indiana State University's appropriation was cut 6.6 percent or \$10.5 million (Loughlin). This cut resulted in the need for all of the University's colleges and the Library to effect immediate cost cutting measures such as working with smaller department budgets and reduction of staff that resulted in layoffs, early retirements, and reassignments. The Acquisitions and Cataloging areas of the Library were particularly affected by the loss of half of their staff. At the same time, the Library's Dean challenged the Cataloging Department's Chairperson to devise a workflow plan that would take the department five years into the future and allow a smaller staff, which barely had time to keep up with processing academic materials, to continue to meet the demands of student, faculty, and staff users to have popular reading titles ordered, processed, and in their hands as quickly as possible.

The Solution

Cunningham Library users' demands for a recreational reading collection mirrored the national trend that has been documented in recent library literature. Since the start of the twentieth century, maintaining recreational reading collections has moved into and out of favor among academic libraries. In the middle 1990's, such collections became popular once more. Budget conscious librarians turned to materials leasing programs as a practical, affordable way to meet user demands (Dewan). This solution was also

confirmed by the marketing manager at Brodart (Schulte) and the product manager/sales consultant at Baker & Taylor (Harvey), two of the largest leased materials providers (Zauha). According to their representatives, Brodart and Baker & Taylor have enjoyed a marked increase in sales of their subscription lease plans to academic libraries and out-of-the-ordinary clients such as the United States government who contracted for collections for worldwide military base personnel ("Library Book Lease Program") and veterans' hospitals ("W--Book Lease Library").

Indiana State University's Library Dean asked the Associate Dean to negotiate a leasing service contract that would include processing as an answer to balancing increased user requests with fewer staff. Library administration began talks with Brodart to lease books for the browsing collection from the company's McNaughton Plan. These negotiations also included the Library's future intent to add a media leasing program to their contract. By including a provision of having materials processed to be received "shelf ready," the Library anticipated that the hottest bestsellers, including the graphic novels that are very popular among today's college students, could often be available for students, faculty, and staff before the local public library could stock them. Furthermore, the negotiated contract resulted in bonus points that were used to "purchase" more titles than had previously been possible when using cash for purchases from a variety of commercial vendors. Why did the Library choose Brodart? There were two major reasons: Brodart provided new content that meets user needs at an affordable cost and, they have an established track record of over 60 years. In 1950, Brodart had created a book rental program offered through retail merchants which has evolved into the subscription leasing program offered today.

Technical Services: Then and Now

Meanwhile, the Technical Services area was reinventing itself by restructuring, reorganizing, and streamlining its workflow. The previous two and a half departments' structure included the Acquisitions and Serials Department with a Chairperson and seven library assistants, while the Cataloging Department also had a Chairperson, a full time original cataloger, and seven library assistants. The other area, the Processing/Mail Room/Facilities Department, had one library assistant who worked closely with the Cataloging and Acquisitions and Serials Departments (processing) but who was actually assigned to both the Circulation Department (mail room) and the Dean's Office (facilities). Each library assistant had specific functions to perform and there was little if any cross over in the functions. Some assistants handled ordering materials, receiving and unpacking new arrivals, invoices, payments, renewals, monitoring Amazon's new releases, binding, and supervising student workers. Others handled authority control, catalog management, withdrawals, relocations, serials added volumes, rapid cataloging, government documents, media, and some original cataloging of games. And, although staffed by student workers, the processing area was supervised by the library assistant. With the reorganization and restructuring there seemed to be only one solution: to merge the two and a half departments into one single department whose Chairperson supervised the functions of the Acquisitions and Serials, Cataloging, and Processing units. With full and phased retirements, resignations, and staff reassignments to other areas in the Library, the department's staff was reduced from 15 to seven and a half.

Reference Instruction: Then and Now

Another result of the State's decision to cut funds resulted in the Browsing Collection's budget allotment being reduced in accordance with the Library's shrinking budget, which resulted in fewer titles being ordered. Further, functioning of the Reference Instruction Department changed as the ten-person Reference Instruction faculty coped with personnel changes that included a retirement, resignations, a promotion, and a sabbatical. These factors drastically affected time that was spent on liaison duties, library instruction classes, staffing the Reference Ask desk, and collection development such as selecting popular titles for the Browsing Collection. One of the department's two library assistants retired. Three faculty members left the University, and another faculty member was promoted to become the Chairperson of the Circulation Department. The Reference Instruction Librarian who had previously maintained the Browsing Collection began a sabbatical, and two librarians continued to cope with the research and publishing responsibilities of the pre-tenure process. The departed librarians' responsibilities were absorbed by the remaining librarians. Additionally, a MLS degree paraprofessional was temporarily

hired to fill in for the librarian on sabbatical; the newly appointed Chairperson of the Circulation Department agreed to continue with liaison duties; and one of the Reference Instruction librarians with many years of experience in public libraries' adult services was assigned to coordinate the Browsing Collection.

What Worked

In earlier times, a relatively small portion of the Library's budget was assigned to the Browsing Collection. The collection was built from choices made by the Reference Instruction Librarian in charge, using bestseller lists, the monitoring of local and online booksellers, vendor catalogs, and from purchase recommendations from students, faculty, and staff. The librarian would create an Excel file which would include bibliographic information and the vendor source which was primarily Amazon. The librarian would then fill out a Purchase Request Form (PRF) for each title and forward the PRFs to the Acquisitions library assistant. The library assistant would create material orders and, if necessary, vendor records, and would order the materials. When the materials arrived, another assistant would unpack the boxes and load the titles on a cart. A third assistant would check the invoices against the order file and move the cart to the cataloger. The cataloger would then either link the item record to an existing bibliographic record in the catalog shared by a consortium of libraries in Vigo County, Indiana (ISU, Rose-Hulman Institute of Technology, Saint-Mary-of-the-Woods College, and the Vigo County Public Library), or would import a bibliographic record from OCLC if none was found in the catalog. The cart would then be taken to the Processing area where a fourth library assistant would supervise students who would affix tattle tape, property stamps, jackets, and shelf labels. When finished, a student would take the cart to the Circulation Department to be shelved in the Browsing Area.

Now that the McNaughton system and the new workflow patterns are in place, titles are ordered directly by the Reference Instruction librarian. When the shipment has been received, a library assistant checks the titles against the packing list, then loads them on a cart that is taken to the cataloging area. The cataloger visually checks for correct property stamping, links the barcode to the bibliographic record, and gives the cart to a student who wheels it to the Circulation Department for shelving in the Browsing Area. A process that used to engage seven library staff now only uses four, and by eliminating the processing step of the workflow, what used to take days for the material to arrive on the shelves now takes mere hours.

What Didn't

The McNaughton book leasing plan was in effect for 16 months when last April, the Library added a DVD leasing plan to the contract. The Technical Services Chairperson communicated the Library's profile to Brodart which describes the Library's preferred cataloging and property stamping format: a deposit was made, spendable points were assigned, and the Reference Instruction Librarian received the link to the June selection catalog. However, after looking at the offerings, it was quickly realized that the cost per unit for DVDs was at times, twice and three times as much as what the Library would pay for the same titles if they were ordered from Amazon. The points that the deposit afforded would have resulted in selecting an average of three titles per month. The Library's extensive DVD collection is very popular among students, faculty, and staff, and demand for the latest releases is high. Adding approximately 36 titles per year would not be enough to satisfy Library users. The deep discounts that Amazon offers for feature releases coupled with the Library's "Prime" membership that offers two-day free shipping, results in savings that will potentially translate into purchases of eight to 12 titles per month or between 96 and 144 titles per year. The savings was too great to ignore so the DVD contract was cancelled and the deposit transferred to the book lease contract. What has been sacrificed is the savings in staff time and the ultimate use of shelf space which will necessitate future weeding. Processing will still involve the librarian who, as selector, will need to monitor online review sites and build an order "wish list" in Amazon, and the library assistant who will place and unpack the order. The cataloger will still link the item to the bibliographic record, and the student workers will prepare the titles for the shelf. The Library now orders as much as possible from Amazon and for the more scholarly titles, relies on direct vendor orders.

Conclusion: The Future

By offering fast, up-to-the-minute content, the McNaughton's Browsing Book collection has proven itself popular among Indiana State University's students, faculty, and staff. This popularity supports the Library's recent decision to invest more heavily in the leased book program which will result in even more titles being added to the collection. For Cunningham Library's Library Collection Development Committee, known as LCDC, the savings of staff time that is realized by the convenience of having materials arrive shelf-ready, has given them documented evidence of the value of contracting for a vendor's processing service. This useful information can and will be applied to the Library's contract with YBP, a major source of the Library's academic materials, because the Technical Services Department staff reductions are in place for the foreseeable future. Workflow processes continue to be tweaked based on outcomes. For example, the library assistant in Acquisitions is being trained not only to receive the browsing books but to also catalog them by either creating an item record when the bibliographic record already exists or to bring in a bibliographic record from OCLC. The Browsing area has been relocated and has undergone a cosmetic makeover. More comfortable chairs have been moved into the area. The shelves are now stocked with the hottest bestsellers that are made easier to find since the older material has been relocated to the stacks.

When the Library migrated to the Millennium system two years ago, browsing materials circulation statistics were lost and current use can't be compared to past activity in order to have a useful statistical analysis. However, a visual observation of the Browsing Area today indicates that circulation of materials from that area is up because even after using the top and bottom shelves for face-out title display, the middle shelves are pretty empty. The Library currently maintains over 700 McNaughton titles, with more arriving every month. The Dean's vision, shared by all who work in Cunningham Memorial Library, is that of the Library as a "real" place: comfortable, inviting, and relevant to users' needs. When coupled with the Library's motto, "Your Campus Living Room," the concept resonates with students, faculty, and staff alike. In other words, McNaughton + Cunningham = Success!

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Chasing Green: An Academic Library's In-House Solution to Save Resources and Change Policy about Energy Conservation

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Abstract

Information can be a powerful tool! As energy consumers and stewards of increasingly limited budget dollars for libraries, many in our profession now seek solutions that would promote both conservation and financial savings. This session will explore how an academic library's in-house electrical requirements study and information literacy instruction were used as the catalyst for change in a University's campus energy conservation policy. With inexpensive and commercially available test devices, the Troy University Montgomery Alabama Rosa Parks Library completed a mini-study that evaluated the power consumption and usage costs for its computers and support equipment. The study focused on the following questions: 1) What are the energy requirements for each type of equipment – including the variations due to the different modes of readiness? 2) What are the weekly costs to operate that equipment? 3) Are there practical ways to reduce those energy requirements and save money? 4) How can the resulting information be used to effect change? This paper addresses the effort's success, lessons learned, and the potential energy savings applications for your library or organization!

Introduction

Have you ever been asked to turn something off to save power? If so, did you wonder if that action actually conserved anything or if it made a difference in the utility bill? Modern libraries across the nation have a variety of electrical equipment needs that are essential to their operations. We have those core uses of energy, such as lights, the air conditioning, and the heating systems, that are considered critical to our ability to offer library services. These are the common and recurring types of electrical requirements that we all manage. We also have other needs to operate equipment for our students, patrons, staffs and offices. It is equipment such as computers, copiers, fans, and a host of additional equipment that are often viewed in a different perspective when comparisons are made to the larger more visible electrical needs in our libraries.

Consider for moment, that most of us have at some time during our careers been instructed by a supervisor to not disturb a heating or cooling system thermostat. We were probably told to restrict any efforts to change the environmental comfort settings to accommodate individual comfort. We were advised that sudden decisions to make areas cooler or warmer generally had negative impacts on the library's electric bills. That concern is understandable, but would that same degree of interest have been expressed for leaving a monitor on over an inactive period? What if the question addressed 1000 or more monitors that had been left on for extended periods of non-use?

The scope of this study was limited to the investigation of the energy requirements of the library's computing and support equipment. The study was not done, however, from a technical or engineering perspective. Instead, the project was completed in the library by an academic librarian and daily user of the equipment. The testing was performed and related to the University's Campus power management practices and current cost expenditures. The objective was to identify alternatives to the existing practices that increased energy consumption.

This study did not measure the on/off control of a library's lights or the adjustment of an air conditioning system's temperature settings. Admittedly, those events certainly have a role in the process to determine a

library's total electrical expenses. If required, they could be measured if a follow-on effort was desired. In the context of this study, though, the results that were achieved are a validation that the library's computers and support equipment use different amounts of electricity – dependent upon the selected modes of operation. The evidence revealed that even seemingly small levels of power consumption can become very large amounts when applied to multiple pieces of equipment that operate over lengthy operating hours.

Review of Literature

Over the past decade, both software and hardware computer technology have made significant advances in design and functionality. These changes have led to improvements in computing equipment capabilities --and have had influenced positively the promotion of Green Energy initiatives. As our equipment has become more energy efficient, so too has our awareness increased about the need to embrace energy conservation.

A review of the literature on the subject of the power management of computing devices yielded numerous writings that were both intriguing and beneficial as resources. Today, there is even a rich discussion about the mathematics behind the power management concepts. A fascinating look at this topic is presented by Susanne Albers in her *Communications of the ACM* article, "Energy-Efficient Algorithms." Another excellent source for readers seeking in-depth and technical information about power management for computer systems is Venkatachalam's, "Power Reduction Techniques for Microprocessor Systems" article in *ACM Computing Surveys*.

It is important to understand our energy requirements environment. This thought was regularly expressed by writers and in the *ASHRAE Journal*, "Increasing Energy Efficiency in Data Centers," where the author noted that "[t]o perform a serious analysis of energy efficiency, the first step is benchmarking existing energy consumption" (Schmidt 24). A similar idea is found in a "5 Essentials to Greening the Data Center," article that suggests that the measurement of your current power usage is central to being able to better recognize how to implement energy saving actions and to reduce power consumption (Gordon 22).

A common method to help lessen energy consumption is to make direct changes to the equipment's settings. According to the author in the *Journal of Academic Librarianship* "Managing Technology during Times of Economic Downturns: Challenges and Opportunities:"

Seek out possible electric power savings on equipment, such as PC workstations, utilizing power settings or specialized software (particularly on older CRT monitors): Although this may seem like a simple or trivial thing to do, the potential savings are not. (Dougherty 373)

Another method is through the use of specialized types of software that can give network administrators the ability to manage the power-state of the computers connected to their group. The author of the *eWeek* article, "Power Down," agreed that a control could be extended to power down systems during periods of inactivity (Musich 7). This particular approach was investigated for this study, but its implementation has been delayed due to hardware limitations and the University's IT department's current policy on system update capabilities.

There will always be factors, though, that influence the operation of the equipment. One factor that affects equipment efficiency is climate control. In a discussion presented in the *Communications of the ACM*, "Recipe for Efficiency: Principles of Power-Aware Computing," Ranganathan advised that power consumption in certain systems can generate waste heat and that "[s]uch heat is often a greater problem than the amount of electricity being consumed" (62).

Methodology

This study was designed to evaluate the Troy University Rosa Parks Library's computer and support equipment electrical requirements, in both the actual usage amounts and the costs for operation. The focus of the study was to measure the library's 20 staff and 51 student computers and printers. This test sample

represented 100% of the library's available computer processing equipment. As a supplement to the study, energy measurements were also taken on the other types of common electrical equipment. That additional equipment included copy machines, fans, portable heaters, televisions, DVD players, and dehumidifiers (see fig. 1). To facilitate the testing, the following questions were addressed:

1. What are the energy requirements for each type of equipment – including the variations due to the different modes of readiness?
2. What are the weekly costs to operate that equipment?
3. Are there practical ways to reduce those energy requirements and save money?
4. How can this results information be used to affect change?

All library staff and student computer systems were tested to determine the amount of energy consumption in their power "ON," "SLEEP" or "STANDBY," and "OFF" modes. Testing was completed AFTER each system stabilized in the operational mode that was being observed. To accomplish the measurements, three commercial test devices were obtained. The test devices were watt-hour meters that were produced by the same manufacturer and they were easily procured through a local sales retailer. In the *Encyclopedia of Science & Technology*, a watt-hour meter is defined as "...an electricity meter that measures and registers the integral, with respect to time, of the power in the circuit in which it is connected" ("Watt-hour Meter" 447).

To perform the measurement on a specific item, a test meter was plugged into the library's power outlet and then connected to the item's power cord. Each individual electrical device, such as a computer processing unit or monitor, was measured. Each item was measured three times, by rotating the power cord connections and making the necessary adjustments in the equipment's operating modes. The three test meters were positioned to function independent of each other and they were set to record power consumption values in *watts*. The *American Heritage Science Dictionary* describes a watt: "In electricity, a watt is equal to current (in amperes) multiplied by voltage (in volts)" ("Watt," def.). Therefore, a kilowatt is a "thousand watts," as defined by the *Oxford English Dictionary* ("Kilowatt," def.).

Data Collection & Analysis

Data collection and analysis for this study was conducted over a 3-month period, beginning in September 2011. A Microsoft® Excel® spreadsheet was created to record the test data and the relevant supporting information. The information captured during the testing contained the unique identification markings, manufacturer names, model numbers, serial numbers, and software configurations (where applicable) of all of the equipment that was evaluated. The spreadsheet was duplicated as a template to account for the similar and multiple items in the different locations within the library (i.e. student computer labs, public areas, staff offices, etc.). In that manner, the data collection process and the analysis was streamlined with the group items being represented on individual spreadsheets. For example, this study included a 2nd Floor Student Computers spreadsheet that was devoted to that equipment's test results as well as a 3rd Floor Student Computers spreadsheet for the 3rd Floor equipment.

In addition to the description details for the tested equipment, the study considered the amount of time that the items would be in their measured operational states. This study was based on a 24-hour clock and a 7-day work week. All direct data readings from the three test devices were entered into the spreadsheet and averaged. The averaged value was then applied to the applicable time period of library operation to determine the total number of watts being consumed. To determine the costs of the power consumption, the dollar per kilowatt rate was mathematically applied to the amount of watts used.

Findings and Lessons Learned

This study produced several findings and lessons learned. They included:

- The use of software solutions to manage groups of networked computers had limited acceptance by the University's IT department. This was partially due to technical difficulties that had been previously experienced under older operating systems. The University's decision to not use specialized software that could automatically control the power states of networked computers was also influenced by their

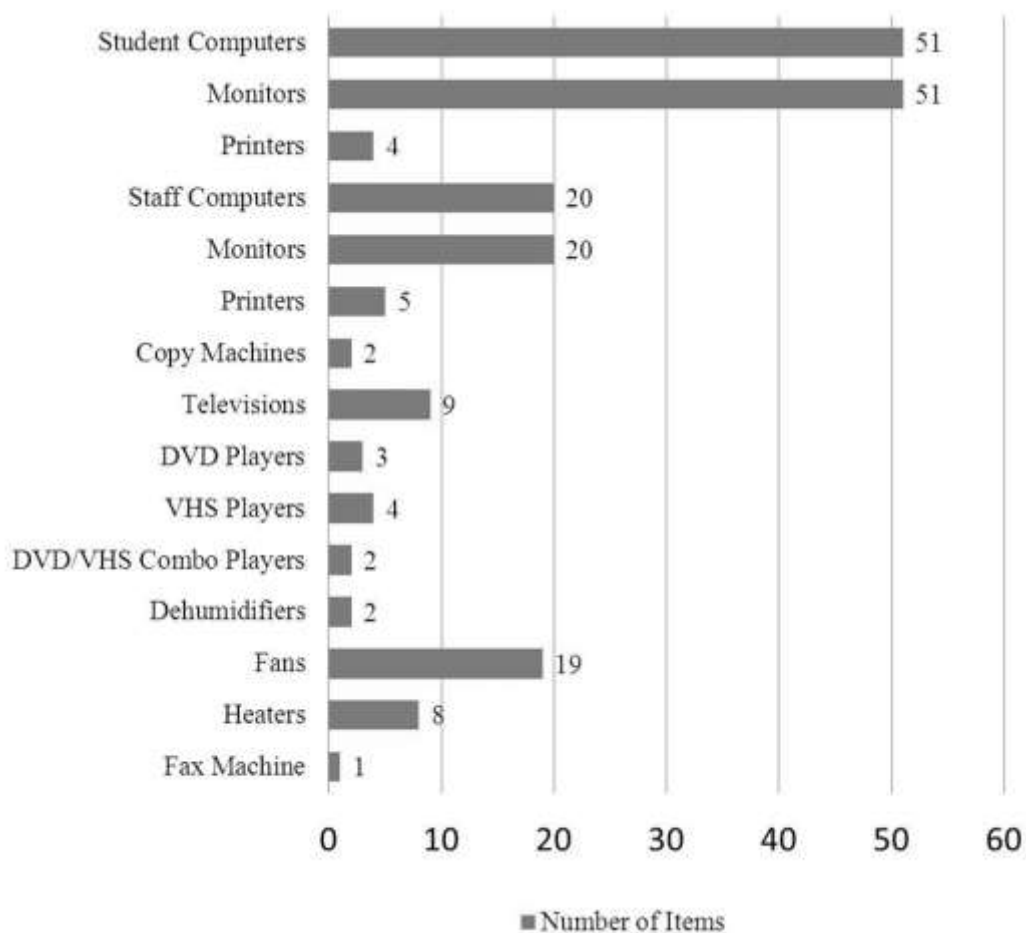


Fig. 1.
Library Equipment Evaluated

Source: Simpson, Jeff. Troy University Montgomery Alabama Campus, Rosa Parks Library. Derived from Test Data of the 2011 Mini-Study on Library Equipment Electrical Requirements. Sept. 2011.
a. This figure is a summary of the types of equipment that was tested during the study.

Note: The kilowatt rate for this study was obtained from the Troy University Montgomery Campus Purchasing office. The rate was specific to the library building and other rates can vary considerably. Rates can be dependent on factors such as the account type, physical location, usage amounts, and times of usage.

concerns of the impact on hardware reliability and the system's update capabilities. In a related writing in "Power Down," the author notes that (as a matter of company policy) other businesses have also chosen to not control desktop computers in that manner (Musich 7).

- Test results varied based on the equipment ages and hardware types (e.g. flat screen monitors versus older tube-style computer displays). Generally, the flat screen monitors consumed less energy than the tube-style monitors and the newer generation of flat screen monitors were more energy efficient than their predecessors. The electrical energy required to operate an older cathode-ray tube (CRT) monitor was equal to approximately the same amount required to run a 60 watt incandescent light bulb. As a comparison, the power requirements for the library's new generation flat screen monitors were typically 66% less than that needed for the tube-style monitors (see table 1).
- Computer and support equipment that is configured to enter a **Standby** or **Off** mode of

operation can reduce energy consumption and save and electrical utility budget dollars! As illustrated in the figures below, the library’s computers, monitors, copiers, and printers consumed \$105.49 per week in energy in an “On” mode of operation. In contrast, the equivalent timed operation of that same equipment in a “Standby” setting would cost the library \$4.58 per week (see fig. 2 & 3). The difference between the “Standby” and “Off” modes in relation to energy requirements was negligible.

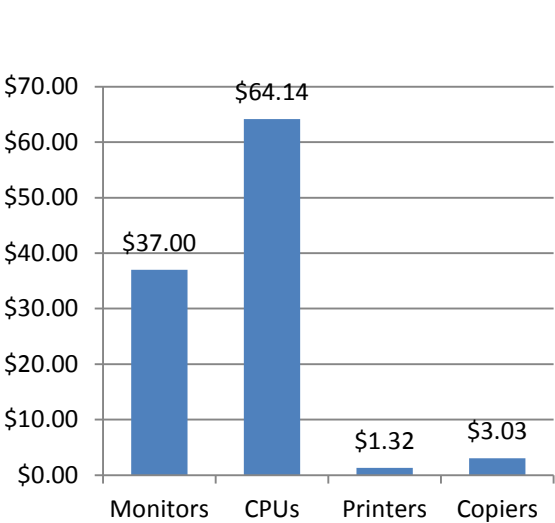


Fig. 2. Power “On” Weekly Costs

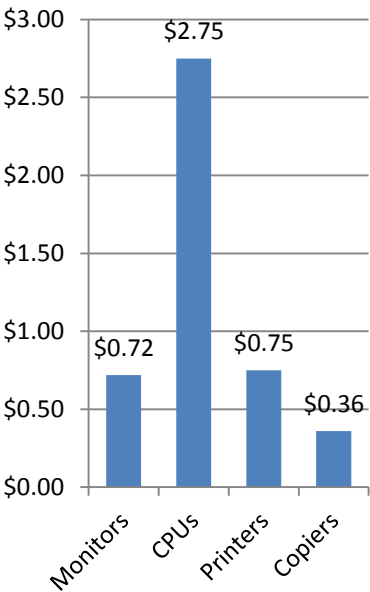


Fig. 3. “Standby/Sleep” Weekly Costs

Source: Simpson, Jeff. Troy University Montgomery Alabama Campus, Rosa Parks Library. Derived from Test Data of the 2011 Mini-Study on Library Equipment Electrical Requirements. Sept. 2011.

a. These figures illustrate the library’s projected weekly costs for its equipment, based on whether the equipment is operating in a “On” or “Standby” condition.

- Computer operating system software affected power usage. The recorded data consistently showed that identical and like-computer’s central processing units (CPUs) that were configured with an older operating system required more energy to operate. The library’s CPUs that had the newest computer operating system were more efficient, in some instances by margins of 30% or greater.
- The library had some types of equipment that continued to use energy in their “OFF” mode. The amount of power consumed, though, was not usually significant enough to affect the overall costs of operation.
- Screen savers on computers do not always save energy. Some screen savers may even require additional energy --depending on the level of activity that the screen saver engages in.
- As a lesson learned, remember that you do not work in a vacuum. It takes a team effort to be successful in introducing energy savings strategies and not everyone has the same outlook on Green Energy initiatives. The factors that are important to the computer users in a library may not match with the concerns of the organization’s IT department. Those issues might include the installation and maintenance of the energy-saving software packages, the repair of hardware that may fail, and the network limitations that could affect the systems’ updating cycles. This sentiment was echoed in the literature with the comment, “While trying to save money, look out for hidden costs, especially those that relate to personnel time...” (Dougherty 374).

Table 1

Sample Energy Requirements and Costs to Power Library Equipment

Equipment	Watts Used	Hours Per Day	Hours Per Week	Weekly Costs
Computer CPU - OFF	1	24	168	\$0.02
Computer CPU - STAND BY/SLEEP	1	24	168	\$0.02
Computer CPU - ON	65	24	168	\$1.06
Monitor (Flat-screen) - OFF	0	24	168	\$0.00
Monitor - STAND BY/SLEEP	0	24	168	\$0.00
Monitor - ON	19	24	168	\$0.31
Monitor (CRT) - OFF	1	24	168	\$0.02
Monitor - STAND BY/SLEEP	1	24	168	\$0.02
Monitor - ON	57	24	168	\$0.93
Printer - OFF	0	24	168	\$0.00
Printer - SLEEP	12	24	168	\$0.20
Printer - ON	17	24	168	\$0.28
Copier - OFF	2	24	168	\$0.03
Copier - SLEEP	4	24	168	\$0.07
Copier - ON	87	24	168	\$1.42
Coin Changer - ON	7	24	168	\$0.11
Electric Fan (Variable Watts: 41 - 80)* *Medium Speed	52	8	40	\$0.20
Portable Heater (Variable Watts: 940 - 1296)** **Low	940	8	40	\$3.65
FAX - ON	5	24	168	\$0.08
Television (Variable Watts: 34 - 88)	34	24	168	\$0.55
DVD Player	7	24	168	\$0.11
DVD/VHS Player (Variable Watts: 7 - 12)	7	24	168	\$0.11
Dehumidifier (Variable Watts: 86 - 424)	86	2	14	\$0.12

Source: Simpson, Jeff. Troy University Montgomery Alabama Campus, Rosa Parks Library. Derived from Test Data of the 2011 Mini-Study on Library Equipment Electrical Requirements. Sept. 2011.

- a. This table presents a sample listing of the energy requirements for the Rosa Parks Library's electrical equipment and their associated costs.

Conclusion

At the outset of the study, there were several objectives. Among those was the need to discover how much energy was actually being used by the library's equipment and what options existed for improving energy efficiency. The questions about the power management of the equipment needed to be answered, primarily, through the collection of traceable data. It was important to determine what the power

consumption requirements were through documented measurement that could withstand the scrutiny and criticism that might follow. The discovery of that detailed information was critical to the study and to the overall calculation for kilowatt costs. Those factors led to the design of a study simple in nature but thought-provoking in its results.

There are several ways to become more efficient. As a start, try "...replacing a system component with a more power-efficient alternative that performs the same task with less energy (Ranganathan 66). Another author suggests that energy savings can be achieved in data centers through the use of cloud computing. It may not be for every institution, but it can offer possibilities to outsource software and reduce hardware requirements (Gordon 24). To those who are willing to look at alternatives to their present levels of energy consumption, the following recommendations are also offered for consideration:

1. Turn off unnecessary equipment.
2. Establish "Sleep/Stand by" configurations for equipment as necessary.
3. Replace older equipment with newer energy efficient models when possible.
4. Upgrade computer software operating systems to improve overall operating overall efficiencies.
5. Bring library administration and staff into conversations about energy conservation.

In recognition that Green Energy policies are not always welcomed by their intended recipients, a dialogue may be necessary to list the ramifications of not pursuing power management measures. It is hoped that this study will add to that conversation. As for the Troy University Montgomery Campus, this study became the basis for our Vice Chancellor's February 2012 message that requested all staff and faculty to please power-off their monitors and printers when they left work (White). Sometimes change must happen in small increments, but it will happen.

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Supporting Mobiles: It's More Than a Link and a Click

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Abstract

Tablets and smart phones brought a new level of user convenience to accessing information, and the overwhelming public acceptance of these devices means that our students expect to access content through these gadgets. We have virtually accommodated these devices through insuring web pages display appropriately on the smaller screen, and functions are compatible across a wide variety of models. Numerous case studies have been published outlining how to overcome technical problems in formatting and transmission, and statistical models have been developed to gage their effectiveness. However, we have not yet permitted our users to maximize the productive capabilities of their devices.

Enabling smart devices to be more productive requires three things: access to the internet [including storage & printing], connecting to a reasonable display, and connecting to a reasonable input device. Some of these requirements can be satisfied through using cloud resources, such as transferring documents, printing and accessing many desktop applications. Providing access to keyboards and displays is a bit more challenging. Although Bluetooth connections are relatively ubiquitous, the procedure for linking a particular device will vary. In addition, the varieties of dongles connecting the device to external displays are dizzying. Consequently, an appropriate disclaimer may include the responsibilities of users to provide their own dongle and connection to the monitor, and the extent to which tech support may be available. I will demonstrate docking to a monitor/keyboard station on a tablet with a windows, android and apple operating system.

User Side Open Access: The High Stakes of Open Access at Teaching Colleges

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Abstract

Compared with research institutions, teaching colleges are assumed to have little stake and no leverage in the Open Access movement. The opposite is true. Because we produce little research, teaching colleges are spared the costs and many of the hassles of Open Access models. Thus, the move towards Open Access represents pure gain. Teaching colleges also have significant sway in the Open Access movement as purchasers and promoters of proprietary content.

We must take a leadership role in promoting user-side Open Access by: (1) re-organizing bibliographic instruction around open research (2) de-coupling our success metrics from proprietary database usage (3) directing our discovery systems to open resources (4) promoting open research at the reference desk and (5) campaigning with faculty for flexible research assignments.

In doing so we both prepare our students for the world of open scholarly research and hasten its coming.

Auto-Populating an ILL form using OpenURL and JavaScript

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Abstract

Do you still ask the patrons to type in every field in an interlibrary loan (ILL) form? Copy and paste sounds better than typing, but it can also make arms sore after a while. In this presentation, the presenter will share the experience of developing and implementing auto-populated ILL form using JavaScript and OpenURLs from the Serial Solution's 360 Link. Collaborating with Serials Solutions, the ILL forms will be automatically populated with the citation information forwarded from the 360 Link. This approach eliminates the needs for PHP programming skills and a PHP enabled web server. It can be implemented with minimal HTML knowledge on the existing plain web server. The presenter will also discuss how she started this project including getting faculty requests, communicating with Serials Solutions to enable OpenURLs parsing, writing a short JavaScript, and testing forms out.

Librarian-Faculty Collaboration for Student Learning

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Abstract

The presentation features a process for interaction and collaborative engagement with faculty in order to foster student learning in an academic environment. Regardless of one's personality type, any librarian can utilize some of the features showcased in this presentation. One only need be authentic and demonstrate enthusiasm for collaboration. The session includes video clips of professors describing how they work with the presenter to assist their students. The professors share in their own words what encouraged them to collaborate with the librarian on projects that enhanced their curriculum and course management system site. The clips also discuss partnering with the librarian about locating and analyzing substantive, relevant resources in class and by appointment, in addition to creating citation clinics for avoiding unintentional plagiarism.

The process includes demonstrating a willingness to provide assistance through coffee shop pedagogy sessions, department walk-throughs, newsletters, e-mails, presentations, interaction and "a presence" in department, college and university-wide meetings, showing an interest in course assignments and/or syllabi, working with course management systems and instructional designers, learning about faculty research interests, working with collection development liaisons, and determining special needs such as accurately citing sources and preventing plagiarism.

Comparative Preferences for eBooks and Paper/Printed Books

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Abstract

“Books are for use,” “Every person his or her book,” and “Every book its reader.” These seemingly simple principles of librarianship were among those developed by S. R. Ranganathan in 1931 and still serve us today. Even at a time when new technologies have the ability to make intellectual content even more accessible to readers, bibliographers are faced with decreasing selection budgets. How do we make wise selection choices? Do we purchase paper or electronic books or more precisely, when do we choose to purchase paper books and when do we purchase electronic books? Librarians at a Midwestern public university sought guidance from its patrons. A survey was conducted to examine the relative preferences for books in paper and in electronic forms. Characteristics of readers and their purposes for accessing books were explored as were the characteristics of the two formats such as accessibility, portability, and convenience.

Introduction

“Books are for use,” “Every reader his or her book,” “Every book its reader,” “Save the time of the reader,” and “The library is a growing organism;” S. R. Ranganathan published these five laws of library science in 1931. Revisions to Ranganathan’s laws have been proposed, but in their original form the laws have stood the test of time. Eight decades after their publication, they provide a theoretical framework for integrating electronic books (eBooks) into the collections of twenty-first century academic libraries.

Over the course of a few weeks in late 2010 and early 2011 the number of eBooks in the library at the University of Northern Iowa (UNI) grew from a few thousand NetLibrary and Gale Virtual Reference Library items to more than fifty-thousand monograph titles as the library simultaneously launched a subscription to ebrary’s Academic Complete collection and an ebrary Patron Driven Acquisitions plan (PDA). Within a few months, library bibliographers were struggling with issues related to the implications of each of Ranganathan’s laws as eBooks suddenly became a key component of library resource collections.

Results of annual student technology surveys conducted by the library consistently ranked eBooks in the top three potential uses of funds coming to the library from university student technology fees. Within the context of a decade of a flat materials budget and ever inflating prices, technology fees became a crucial source of support for providing a range of electronic subscriptions.

Contextual forces provided strong impetus for making eBooks a major component of the library’s resource mix:

- Annual student technology fee survey results indicated strong support for such a move.

- The long-term trend of declining monograph purchases as a result of a static budget and inflating subscription costs.
- Space considerations as optimal capacity levels in book stacks were exceeded.
- Increased campus impetus to provide more distance and online education programs and the library's dedication to meet all university students' needs for high-quality information sources.

The possibility of obtaining supplemental funds from university student technology fees offered the potential to address each of these concerns, and the provision of eBooks formed the basis for a successful 2010 student technology fee application which allowed the library to initiate both a subscription to an eBook package and establish an eBook PDA. Within months of launching both programs, library bibliographers were faced with a range of collection management decisions related to eBooks. While eBook acquisition and use statistics provided some hard data to inform such decision making, understanding of patron perspectives related to eBooks was anecdotal. By fall 2011 the need for more systematic knowledge of patron perspectives was apparent, and librarians volunteered to form an eBook survey team.

The survey was designed to gather information about patron reading preferences for print and electronic books, whether purpose for reading affected format preference, the extent of reading, the perceived comparative usability of print and eBooks, frequency of eBook usage, and the use of and preference for e-reading devices. The implications of Ranganathan's laws, posited long before the advent of eBooks, nonetheless echo across the decades in regard to library decision making. What are patron book format preferences? What is the place of eBooks now and in the future in an ever evolving academic library?

Literature Review

Ebook usage and market penetration has been the subject of several studies. Miller reported on the 2011 Ebook Penetration & Use in U.S. Libraries Survey, which indicated that 95% of academic libraries offered eBooks to their user communities (33), while Breeding spoke more philosophically as an advocate of the role of libraries in eBook adoption and provision. Ashcroft summarized the findings of several recent studies, which underscored the importance of raising the awareness of the user community and the need for more concurrent access to materials used in coursework.

The Pew Internet and American Life Project published a report on the increase in reading in electronic formats. Of particular interest is the fact that those who read eBooks read more in total than those who do not. Cull examines how the Internet has affected reading patterns (skimming information and jumping around from place to place), questions what its long term effect on the human brain will be, and emphasizes the role of the library and the academy in teaching in-depth reading skills. Coker discusses the larger context of users moving to electronic environments and the challenges it presents to publishers to meet user needs and improve user experiences.

There is a long and substantial history of academic libraries and publishers or their surrogates surveying their respective user communities for information about reading preferences and purposes. Some of the prominent studies have been summarized by Blummer and Kenton as a prelude to reviewing the best practices that have been developed for the acquisition, cataloging, and promotion of eBooks.

Shelburne reported on a large scale study of user attitudes and behaviors at the University of Illinois in 2008, which found that eBooks were most heavily used for research by all categories of participants (62), but that users preferred print books for ease of use and pleasure of reading (64). Similar results were found in the other institutions that participated in the Springer-sponsored study (Information Outlook) and in a study of Taiwanese graduate students, as reported by Wu and Chen. A study of Malaysian students by Noorhidawati and Gibb emphasized that students use eBooks for relevant content or for reference purposes (How Students 12).

Noorhidawati and Gibb conducted a three part study of eBook use and usability at the University of Strathclyde. Part 1 reported that eBook awareness and the level of eBook usage amongst students was lower than anticipated (593). Part 2 reported that in a follow-up study students found that interacting with

eBooks in the library collection was easy and that students' preference for book formats varied depending on the context of their information need (676). Part 3 found that a back-of-the-book index was more efficient compared to a table of contents and full text search tool for finding information in an eBook environment (17). Croft and Davis found increased levels of interest in and use of eBooks at Royal Roads University between 2003 and 2009, but actual use did not extend to much more than 50% of the student body.

The National Association of College Stores found that college students still preferred print textbooks by a margin of three to one (6). Robinson reported that students in a program that provided them with free electronic textbooks still bought print copies because of their preference for reading in the printed format (1). Kelley and Warburton reported on a University of California Libraries study that found that undergraduates prefer reading print to reading online because of difficulties in concentrating when using a computer (15). Woody, Daniel, and Baker found that prior experience with eBooks and/or computers did not predispose users to prefer eBooks over textbooks (947).

Vasileiou, Hartley, and Rowley focus on the criteria and processes that academic libraries use to choose eBooks. Lamothe found a correlation between increased usage of eBooks and selective library purchasing, and found more use of e-reference titles than monographs at Laurentian University in Canada.

Methodology

To provide students, faculty, and staff, and all key stakeholders with a voice as librarians deliberated the library's role in the provision of eBooks and eBook readers, a twenty-two item self-report survey was developed and distributed. The topics investigated and the respective number of questions included in the survey were: respondents' relative preferences for eBooks and printed/paper books (11), experiences using eBooks (3), ownership of particular devices used to read eBooks (1), attitudes about the library's possible role in purchasing eBooks and eReader devices (3), personal characteristics (university affiliation, age, and gender) (3), and additional comments (1). Among the questions measuring preferences were six which probed respondents' attitudes about the usability characteristics of eBooks and printed/paper books including their relative accessibility, portability, and convenience. A variety of question formats was used: forced choice, multiple choice, Likert scale, and open-ended.

Surveys were distributed during a two-week period in the spring 2012 semester in electronic and print forms, the only difference being the means of distributing and completing the survey. Zoomerang online survey software was used for the electronic version. (The responses received electronically are analyzed here.) Several methods were used to recruit respondents. The university community was invited to take the survey through two announcements in the university's twice-weekly email newsletters. The same announcement also appeared on the library home page and on facebook. A direct link to the electronic version of the survey was included in all of the announcements.

Research team members endeavored to ensure respondents had a shared understanding of the meaning of eBook. A concise definition of eBook was developed by the team, using our own knowledge as well as the definition given by Gardiner and Musto (164). Our definition was placed prominently on the survey, in bold font before the first survey question: "An eBook (also known as electronic book, e-book, digital book) is a text or image-based publication in digital form readable on computers or other digital devices."

Results

Surveys were submitted by seventy-nine individuals. The initial survey questions were designed to determine respondents' book format preferences by asking them to choose between paper/printed books and eBooks in general and for specific purposes. When asked whether they preferred to read paper/printed books or eBooks, 67.1% of the respondents chose paper/printed books, while only 32.9% chose eBooks (see table 1-- in this study we are reporting the valid percentage, the percentage of those people who answered a question excluding those who did not answer).

When asked which format they preferred if the library were purchasing a book “that would support your completing class projects/research,” 51.9% chose paper format and 48.1% chose electronic (see table 1). If the library were purchasing a book “that you would read for leisure reading,” 59.5% preferred for the book to be in paper format, 40.5% in electronic (see table 1).

To ascertain some underlying reasons for their format preferences, respondents were asked to consider six usability characteristics as they rated book formats on a Likert scale on which “eBooks are much better” anchored the left end of the scale, and “Paper/printed books are much better” anchored the right. eBooks were more likely to be seen as being much better in terms of being available when needed (49.4% of respondents) and as being easy to carry (55.8% of respondents) (see table 2).

Paper/printed books were more likely to be seen as having much better ease of reading (41.8% of respondents) and pleasure of reading (49.4% of respondents). There was less differentiation among respondents on the characteristics of being easy to find in the library and as being easy to use (see table 2). For the characteristic ease of finding, 19.5% of respondents rated eBooks as being much better and 19.5% of respondents rated paper/printed books as being much better, while 28.6% of respondents marked the middle of the scale, indicating they saw each format similarly in terms of ease of finding or were neutral about the item. For the characteristic ease of use, 20.3% of respondents rated eBooks as being much better and 24.1% of respondents rated paper/printed books as being much better, while 21.5% of respondents marked the middle of the scale.

Averages were calculated to list respondents’ ratings of usability characteristics in order from low (eBooks much better) to high (paper/printed books much better). The respondents’ ratings listed in low to high order are: easy to carry (2.05), available when needed (2.11), easy to find (3.04), ease of use (3.19), ease of reading (3.61), and pleasure of reading (3.87) (see table 2).

Three survey questions revealed respondents’ experiences with using eBooks. When asked how often they used eBooks from the library, 41.6% indicated never, 27.3% once a year, 19.5% monthly, 10.4% weekly, and 1.3% daily (see table 3). The majority, 68.9%, had never used eBooks or used them only once a year.

The amount and type of material read when eBook users accessed eBook content was assessed; 43% read only needed sections, 31.6% searched keywords, 25.3% read cover-to-cover, 24.1% skimmed the book, and 24.1% read most relevant chapters (see table 4).

Almost 27% of eBook users indicated they used eBooks by downloading and printing information to read later (see table 4). All respondents were asked whether they will use eBooks only if they can download them to their hand-held device; a slight majority (53.9%) agreed with the statement (see table 5).

Several questions asked respondents for their opinions about the role the library might play in eBook and eReader provision. In response to the question, “If a title is available in both paper/printed and electronic format (eBook), which format should Rod Library purchase,” 24.1% indicated paper/printed, 21.5% eBook, and 54.4% both (see table 6).

Table 1

Paper/Printed Books vs. Electronic Book Preference

Format	Valid Percentage	
	Paper	Electronic
Which do you prefer to read	67.1	32.9
If the library is purchasing a book that would support your completing class projects/research (papers, presentations, research, etc.), would you prefer for the book to be in	51.9	48.1
If the library is purchasing a book that you would read for leisure reading, would you prefer for the book to be in	59.5	40.5

Table 2

For each of the Following characteristics, Use the Scale to Indicate whether eBooks or Paper/Printed Books Best Characterize the Item

Characteristic	Valid Percentage				Paper/printed books much better	Average Weight (wt.)
	eBooks much better wt. 1	2	3	4	5	
Available when I need it	49.4	20.3	8.9	12.7	8.9	2.11
Easy to find in the library	19.5	14.3	28.6	18.2	19.5	3.04
Easy to carry	55.8	11.7	14.3	7.8	10.4	2.05
Ease of use	20.3	11.4	21.5	22.8	24.1	3.19
Ease of reading	12.7	11.4	20.3	13.9	41.8	3.61
Pleasure of reading	11.7	5.2	16.9	16.9	49.4	3.87

Table 3

How often do You Use eBooks from Rod Library?

	Valid Percentage
Daily	1.3
Weekly	10.4
Monthly	19.5
Once a year	27.3
Never	41.6

Table 4

If You Use eBooks, How Do You Use Them? (Select as Many that Apply to You)

	Valid Percentage
Skim the book	24.1
Search keywords	31.6
Read only those sections that I need	43.0
Read most relevant chapters	24.1
Read cover-to-cover	25.3
Download and print off a few pages or a chapter to read later	26.6

Table 5

I Will Use eBooks Only if I Can Download Them to my Hand-held Device

	Valid Percentage
Yes	53.9
No	46.1

Table 6

If a Title is Available in Both Paper/Printed and Electronic Format (eBook), which Format should Rod Library Purchase?

Format	Valid Percentage
Paper/printed book	24.1
eBook	21.5
Both	54.4

Table 7

If Rod Library Purchases eBooks instead of Paper/Printed books, should the Library Offer an e-reader Device for Check Out?

	Valid Percentage
Yes	79.5
No	20.5

Table 8

If the Library Purchases e-readers, what Type of e-reader Device would you like the Library to Provide?

Device	Valid Percentage
Laptop	8.1
Netbook	5.4
iPad	20.3
Nook	16.2
Kindle	37.8
Other	12.2

The majority, 79.5%, believed that if the library purchased eBooks rather than paper/printed books the library should offer eReader devices for check out, while 20.5% disagreed (see table 7).

When asked to choose one type of eReader device for the library to provide, 37.8% indicated Kindle, 20.3% iPad, 16.2% Nook, 8.1% laptop, 5.4% netbook, and 12.2% others (see table 8).

Twenty-five individuals responded to the final, open-ended question, “Additional comments?” Two research team members independently read respondents’ comments and rated the main topic raised by the respondents into one of five categories: content of book, purpose of using book, technical/functional aspects of using book, money/cost-effectiveness, or other. The agreement in comment categorization between the raters was high, 88% (for 22 of 25 comments the raters agreed). On the three comments for which there was disagreement, the raters discussed their categorizations and reached agreement.

Most of the individuals who wrote comments, 60%, expressed concerns that were categorized as technical or functional. Illustrative of technical or functional comments are the following comments from three respondents: “I love ereaders like the Kindle and ipad, but hate reading on my computer screen. If you can manage to get ebooks in formats for ereaders, that would be fabulous. If they can only be read on the computer, I would prefer real books;” “I find it difficult to use most of the current ebooks provided by the library on anything but a desktop or laptop computer. I don’t understand the process for getting the ebooks on my iPad, and it seems like a lot of hoops to jump through;” and “Reading ebooks is very difficult for research. One forgets they are there in one’s library, and taking marginal notes or notes at all is difficult.”

Twelve per cent of those writing comments discussed their purpose for using books in general or in relation to format preferences. The following comment typifies a comment related to purpose: “I like using my Kindle to read for pleasure, but if I’m looking for specific information I’d rather look for a book.” Money or cost-effectiveness concerns were expressed by 8% of those writing comments, for example, “I love the idea of eBooks, but I think that it is unfair to students that do not personally own an eBook reader. I personally could not afford that and don’t see myself purchasing one because of finances. College is expensive enough as it is without having to worry about not being able to read necessary material unless I buy a certain product.” No one discussed the content of books. Five comments (20%) were categorized as “other;” respondents offered a variety of comments, including appreciation for our conducting the survey.

Discussion

The survey was intended primarily to gather information from a mix of the university’s students, faculty, and staff to inform library decisions about eBook purchases, decisions both at the institutional level as the library explores its commitment to eBooks and at the individual level as each bibliographer makes book

format purchase decisions. There are limitations to our study. Respondents may not have been representative of the university community as a whole; therefore the results should not be generalized to students, faculty, and staff at other universities or even to all at the University of Northern Iowa. The self-report survey relied on respondents' accurate reflection on their attitudes and experiences. Although we supplied a definition of an eBook on the survey instrument, it is possible that respondents did not read or apply our definition, or may even have been thinking of non-book electronic resources such as journals, serials, or government documents.

Consistent with the findings of previous researchers, some of the complexities of reader attitudes and use of electronic and paper book formats were revealed by our study. Overall this sample of UNI students, faculty, and staff states a general preference for paper books. University community members are receptive to eBooks for some purposes, for example, when they search for information for class projects or research. Many believe eBooks are available when they need them and are portable, easy to carry. However, many regard paper books as having ease and pleasure of reading. Respondents' mixed views are also indicated by many indicating that if the library is purchasing a title available in both paper and electronic formats, both formats should be purchased.

One of the clearest findings was that 79.5% of survey respondents believe that if the library purchases eBooks rather than paper/printed books, the library should offer appropriate eReader devices for check out. This is consistent with our practice of providing not only over one hundred computer workstations in the library, but with providing laptops and netbooks to library users, and provides us with guidance as we consider the library's increasing role in eBook provision. Technical or functional concerns about eBook use were raised by some respondents, although not a primary focus of our study. Respondents voluntarily commented on their difficulties in using library eBooks on computers and did not know about the availability of eBook functions such as check out, chapter downloading, and note taking.

Observations of Ranganathan come to mind, "Every reader his or her book" and "Books are for use." Our survey results indicate that no one format is seen as meeting the needs of all readers, or even all of the information needs of one reader. There are relationships, albeit complex, between a reader's preferred format and his or her purpose for using a book. Books need to be usable and accessible. Readers will benefit as eBook developers create functional, robust products with transparent interfaces enabling readers to meet their pleasure-reading, research, or other information needs.

In the twenty-first century librarians can still facilitate the interaction between readers and books. Librarians can serve as reader advocates, informing eBook developers of the ways to make their products more versatile and easier, even pleasant, to use. In our bibliographic instruction sessions we can teach readers how to identify eBooks and use various eBook products. In our collection management we can remain alert to the improvements in this still-developing book technology.

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Managing Information: Lessons for the 21st Century

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Abstract

In an age where students are expected to demonstrate their familiarity with a topic through assessments other than a term paper, Information Literacy becomes more than learning traditional library skills. Library instruction typically involves showing students how to find peer reviewed articles for an academic paper. However, students are writing fewer papers and now demonstrating their competence through their use of a growing array of social media, including discussion boards, mashups, and Skype. Acceptable sources have moved from merely published peer-reviewed scholarly documents to the new primary documents of blogs, tweets and even Facebook, as well as a growing number of creative commons publications and digital archives. In addition, the granularity of these info-bits make it increasingly difficult for students to find a context within which to draw the pieces together, and their false sense of expertise further complicates relearning inadequate search strategies. Consequently, students are entering a seemingly familiar environment that works far differently from their expectations.

Students rehearsed the routine of typing a few words into a search field and pressing enter thousands of times before arriving at college; but thinking about how they choose the terms they use, how items they find may be related to their topic, which are results are credible, or which database to use become novel experiences. Even when guided to specifically academic databases, gathering three sources for many becomes a scavenger hunt rather than a search for items with related content. Focusing on the question at hand provides the path through which each of these obstacles can be overcome.

Solutions to appropriately integrating the wider range of sources available begin with the recognition that there is a breadth of appropriate information available through the web. In order to access this content, students need to accurately describe what they need, recognize how individual sources fit together, and learn to choose the most appropriate source rather than the first one they encounter. A few examples illustrate this point: When contributing to a discussion board or writing a reflective journal, use of a blog from 9/11 survivors provides a valuable primary source. Tweets sent during the Arab spring illustrate the sense of chaos participants experienced. When Skyping, students need to find credible information in a timely fashion in order to support their opinions. Incorporating first hand observations from blogs can provide appropriate insight to more academic discussions, such as using blogs from a Veteran's forum in a literary discussion of "The Things They Carried." As assignments move away from the traditional academic paper, students will still need to find credible sources to support their ideas. Through focusing on methods to locate and evaluate the broader range of information on the web, students can gain a clearer sense of putting credible information into context to make their point on the web, through a paper, or in person.

Introduction

The beginning of a new century always gives one pause---to assess, speculate, and dream of what might be. Identified as a core competency in many institutional outcomes across the nation, students are expected to manage information through effectively navigating an informational landscape that is constantly evolving in complexity and depth. Typically, students trudge to the library for instruction in finding a few scholarly sources for a pending academic paper. Pedagogy has changed. Resources have changed, and students have changed. When academic assignments incorporate new technologies, library instruction can be broadened to include the intelligent use of the full range of material available through

the internet. In this context, one can approach the skills needed to effectively manage information within the full spectrum of emerging technologies, expanded publishing opportunities, and evolving pedagogical trends.

Over a decade ago, ACRL defined an informationally literate individual as one who could succeed in the following tasks:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (ACRL)

These criteria are conceptually broad. However, surveying literature engaging information literacy reveals that the overwhelming majority of publications focus on finding scholarly information that will be used in writing a term paper, and this experience is generally embedded with a freshman composition class.

Clearly there are a number of reasons to justify this focus. This course provides access to a large cohort of students, at a relatively analogous entry point in their academic career. Collaboration between English Composition faculty and librarians is quite common, productive, and students have a practical application in which to develop information management skills. However, it seems that one frequently encounters library instruction geared toward finding the several ubiquitous scholarly articles needed to write the term paper, or demonstrate competency through developing an annotated bibliography rather than lessons in evaluating the relevance of content or context. Have we come to grips with 21st century informational needs when instructing students to efficiently and effectively access the growing range of available materials through an increasingly sophisticated search machine? Exploring evolution in assignments, resources, and the means through which they are accessed, will provide students with appropriate guidance in meeting these demands.

Changing Assignments

Students are asked to demonstrate their competence through an increasingly complex and evolving array of social media and technology: discussion boards, mashups, blogs and web-pages. The future appears to continue this trend. A cursory survey of technologies identified by the new Media Consortium (NMC) underscore the evolution of technical tools that promise to facilitate communication, organize information, and integrate the user into an increasingly sophisticated network. The 2012 Horizon Report highlighted the imminent arrival of mobile apps and tablet computing, identified game based learning in a 2-3 year window, and forecasted an Internet of Things in the next 3-5 years. The previous year, E-books and mobiles were in the one year window, and augmented reality and game-based learning were predicted to make an impact in the next 2-3 years. In 2010, open content was pending, e-books were expected in a 2-3 year window, and gesture based computing was expected to be in use in a 4-5 year time frame. The 2009 report discussed the demands of computing in a mobile and cloud environment, the use of personal webs in the next 2-3 years, and semantic aware applications and smart objects were projected to have an impact within 4-5 years (Johnson). In 2008, grassroots video and collaborative webs were in the one-year window; data mashups were in the 3-4 year window, and collective intelligence were in the 4-5 year window. The year earlier, social networking and user created content were in the one year window; virtual worlds were 2-3 years, and emerging forms of publication were in the 4-5 year window (NMC).

While the timeframes may have been off, the underlying technology discussed has generally taken hold in educational settings. We see tablets everywhere and there are apps for everything. Course Management systems either supplement face-to-face meetings or provide self-contained learning environments. Textbooks are frequently linked to web resources that often take the place of traditional reserve materials,

and e-books are widely available. Within these environments, students demonstrate their familiarity with the content through publishing web-pages or blogs, contributing to discussion boards, or producing presentations. Clearly participating in these activities does not occur in an informational vacuum, but information management skills needs to prepare students for finding credible information that supports presentations, postings, and blog entries.

Resources are Different

Tablets, smartphones, and applications that enable these devices and the networks that connect them fundamentally changed our relationship to information---in producing it, the means by which we access it and the manner in which we consume it. The last decade brought a stunning shift in publishing, personal computing, and pedagogy. Wikipedia and google are frequently cited as the nemesis for falling reference transactions, but the advent of library web pages and FAQs, online full text periodicals, e-books, and course-related materials provide reasonable alternatives for personal interactions regarding hours of operation, photocopying print articles, accessing books, and completing assigned readings. Tyckoson characterizes this transition in the following manner:

Information that once was available only in expensive reference books within a library collection inside a library building is now available immediately, anywhere and everywhere, at no cost. Finding information has become fast, easy, and cheap. Unfortunately, reference collections remain slow, difficult, and expensive. (227-28)

However, students need to know the value of what is available as well as know how to actually access it, and be able to critically evaluate the results that match words typed into the search-box.

These transformations blur once familiar cues to the accuracy and relevance of informational sources. At one point, it was easy to equate format with quality, but this too has changed on both the print and the electronic side of the divide. Networks now deliver scholarly journals, books as well as google results and blog posts. When one uses a general search engine, a vast number of items that match a hastily construct search statement appear.

However, using library databases without critically reviewing the results can be equally problematic. When searching through newspaper databases, for example, one needs to know if the result is an opinion column, a news story, or a letter to the editor. Even the Peer-Review standard has some detractors. David Colquhoun concluded that scientific literature is being corrupted despite the use of peer review. He points out that the sheer number of publications draws the quality of publications into question: 1.3 million papers were published in almost 24000 journals in 2006 alone. Contemporary technology permits responses from both the Principle Investigator of the paper and the editor of the journal. While both types took issue with Colquhoun's evaluation of their work, neither discussed the underlying issue of how the workload of reviewing that number of publications is adequately monitored (Colquhoun).

The specificity of scholarly publications clearly presents an obstacle for undergraduates who lack the background to put specialized studies into larger contexts as well as the vocabulary to comprehend a highly specialized journal. In this context, it would be helpful to direct undergraduates to more general publications for background so they can engage more specialized articles with the context needed to understand the author's intent. Discovery tools provide access to discrete documents but still fail to place an article within a comprehensible context for the novice.

Quality materials are increasingly outside traditional peer-reviewed publisher models. Instructional materials more frequently consist of a text enveloped in an informational environment that amplifies the textbook, the Open Learning Initiative provides free access to classes from leading professors at prestigious universities (www.openculture.com), and online tutorials provide instruction on a number of topics (e.g., Khan Academy www.khanacademy.org). In addition, institutions are making their professors' works available through digital archives. Anne-Marie Deitering and Kate Gronemyer discussed the unique opportunities scholarly blogs provide for students to listen to experts discuss the creation of new knowledge.

Blogs provide access to an established community. In 2008 professor Noah Wardrip-Fruin experimented with his blog, Grand Text Auto (grandtextauto.org), to review his book, *Expressive Processing*. He concluded:

It makes sense to do a blog-based review because we have, in blogs, already-existing online communities that attract university-based experts, industry-based experts, and interested members of the public. The way we use blogs also already encourages discussion and questioning. (Deitering and Gronemyer 496)

Digital Archives provides another source of valuable information available through the internet to those that know how to locate these collections. The American Memory project from the Library of Congress strives to freely and openly provide access to those sources that document the American Experience (LoC). The Missouri Digital Newspaper Project provides access to the daily lives of those living in many Missouri cities through scanned images and text of local papers (State). Finally, StoryCorps is an initiative of the Folklife Center of the Library of Congress, and is one of the largest oral history projects, archiving more than 40,000 interviews (StoryCorps).

Consequently, authentic informational sources have moved from merely published peer-reviewed scholarly documents to the new primary documents of blogs, tweets and facebook, as well as a growing number of creative commons publications and digital archives. However, the granularity of these info-bits make it increasingly difficult for students to find a context within which to draw the pieces together, and their false sense of expertise further complicates relearning inadequate search strategies.

How Students use These Resources

Libraries regularly examine how collections are used for a number of reasons, and surveying citations provides an insight into how students search for information. Studies conducted in the late 1990s are particularly informative in documenting how users' behavior accommodated the transition from print to electronic access to academic material. These studies also provide insights into how those that use the library value various services and resources.

Leslie Kriebel and Leslie Lapham examined the bibliographies of 98 Social Science Honors Theses from 1999 to 2005 produced at Wellesley College. In the mid-1990s, print resources were primarily used. Comparing the sources they used in these theses revealed that students were increasingly turning from print resources to online journals as well as web resources. They concluded that ease of access was a prime motivation for this change of behavior (Kriebel and Lapham). Philip Davis and Suzanne Cohen examined resources cited in term papers in microeconomics between 1996 and 1999. This study revealed that the number of books used declined from 30% to 19% while newspaper citations increased from 7% to 19%. Web citations increased from 9% in 1995 to 21% in 1999. However, when the links were checked in 2000, only 18% of those cited in 1996 linked to the document, while 55% of the 1999 links were active a year later (Davis and Cohen).

Joanne Smyth examined 43,996 citations in 457 masters' theses and dissertations written between 1995 and 2008 at the University of New Brunswick in Psychology, History and Education to determine if access to journal issues in electronic format would skew students' research activities as well as the impact of free Web sources had on the materials students used. She found that there was no firm evidence that students ignored earlier materials in favor of electronic journals. She also found that faculty accepted other formats of information, especially in education. In Education dissertations, 80% used web sources in their bibliography, and 38% of the masters' theses used websites in their citations, although both types of treatises used web sites fewer than 4% of the total citations present. About a quarter of the treatises in History and Psychology dissertations used web sites for .53 to 1.99% of the citations, and less than 13% of Psychology masters treatises used web sources for .29% of their sources. She concluded that students used monographs with a wider range of publication years because they had easier access to older journal articles when backfiles of journal articles were added (Smyth).

In 2008-2009, Doris Malkmus used an online survey to contact 627 academic historians to gauge their use of primary materials to capture a snapshot of the current use of online, published, and archival primary

sources used in new teaching methods. The responses revealed that that these sources augmented textbooks, but students encountered difficulties in using online archive materials because they were hard to find, and appreciated librarians and archivists help in locating, developing search skills and extended consultations. He also found evidence that these materials can be used in non-history courses as well. An environmental student class used archival resources form a local heritage society, and arranged for a short guide to be prepared to assist students in using the collection (Malkmus).

These studies confirm anecdotal observations. The more experienced researchers are able to use a variety of sources, even using older journal articles to access a broader range of monographs. Professors are turning to newly accessible resources as they become available and some trail blaze by using sources in unanticipated ways. Undergraduates tend to choose familiar web sources over academic journals, and chose to ignore monographic sources.

New Ways of Accessing Information

The method by which we access information has fundamentally changed since the early OPACs, evolving from individual catalogs and databases, through federated search engines, to more integrated discovery tools. Kieft characterizes the motivations for these changes in the following manner:

Thus, the library community adheres to its mission of providing information access and learning opportunities for all but asks in an “everything-is-miscellaneous” information universe about the value of its traditions of information organization. (347)

Within this chaos, the goal of these discovery systems is to provide the user with a “one-stop-shopping” experience of the google search engine (Buck and Nichols). However, can the backend search engine ever develop the sophistication to interpret a user’s informational need?

Guoying Liu provided a survey of the use of intelligent agent technology in a library environment. This technology can be employed to improve information services as well as enhance users’ access to information. Three projects were used to illustrate the promise of intelligent agents; UMDL, piloted by the University of Michigan to provide access to different multimedia formats; MALIBU, part of the Electronic Libraries Programme in the UK that is designed to provide access to both print and electronic recourse with a union framework; and DAFFODIL, whose goal is to enhance users’ support when searching and retrieving information in digital libraries (Liu).

Rather than searching for related information, professors can provide direct links to electronic sources from course management environments or web-based supplements. Such routes have their advantages. It appears easy to link to podcasts, screencasts, blogs and other learning objects that discovery tools may miss. In addition, when users measure convenience by the number of mouse clicks, having to enter change environments to look for information is perceived as an inconvenience. However, the developing channels through which instruction is delivered can provide an opportunity to use information literacy skills and critical thinking in evaluating which resource best meets an informational need, and one should avoid removing students from the search process altogether (Williams).

Assessments of their Needs and Skills

Undergraduates are at a disadvantage when they begin looking for unconventional sources of information because they lack the background to effectively describe what they seek or recognize when they find it. Expected to use technology to gather, manipulate and publish their assignments: students may need assistance learning the technical components of an assignment in addition to the informational content they need. In an age where students are expected to demonstrate their familiarity with a topic through assessments other than a term paper, Information Literacy becomes more than learning traditional library skills.

Library instruction typically involves showing students how to find peer reviewed articles for an academic paper. This research process has been described in a number of different ways by a number of authors. Dennis Isbell suggests three components: finding a topic and its focus, understanding the

differences between keyword and controlled vocabulary searching, and evaluating the merits of sources (Isble). Nevertheless, students continue to experience difficulties finding appropriate information to complete their assignments.

In 2007, Lisa Gurney and Janelle Wilkes created an online unit to improve applied science students use of journal articles. Students were provided with links to search strategies, instructions in formulating suitable key-word searches, and how to check if articles were peer reviewed. When surveyed, 82% of the 50 students surveyed said the material was helpful. However, only a third were able to find the required six journal articles. This study also found that students most often turned to web sites, while books were viewed as the least favorable resource. A quarter of the students found instructions difficult to follow, too much to read, or too time consuming, and a third did not understand journal content (Gurney and Wilkes).

Sonia Bodi concluded that students have several disadvantages when searching for information. They exhibit problems choosing and narrowing a topic, selecting a subject-heading search method, and evaluating the merits of their sources, web sites in particular. She concludes that they lack a background that enables them to deal with ambiguity, dead-ends and self-doubt inherent in research. In addition, a lack of patience creates anxiety, uncertainty and confusion, causing students to choose databases they are familiar with rather than those that contain more relevant information (Bodi). She characterizes their search experience in the following manner:

Instead, it appears that students search in a haphazard, unplanned way, happy to find whatever. In a sense they are trying to engage in the kind of serendipitous discovery that scholars do, only without having first established the context in which that sort of discovery is likely to happen. (110)

When students have not done appropriate preparation, they inadvertently find a “false focus” which can lead to shallow reasoning and errors in the assignment because they do not understand the question or are unable to accurately describe the needed information (Kennedy, Cole and Carter):

The use of online resources can be an area particularly vulnerable to false focus, because the patron is pushed to a narrow search strategy too soon in the search process in order to conform to an image both the user and the technology have of what an ideal search output should look like. (268)

Students are Different

Digital natives may demonstrate a certain demographic, but this designation does not indicate a uniform set of technical skills. While this generation may have grown up with the internet, their skills in harvesting and evaluating information in many cases are non-existent. Students exhibited a startling drop in literacy skills over the past 40 years. Rather than a new problem, Anne Behler found that academic libraries discussed similar concerns in the 1940s and 1950s, and suggests leisure-reading collections as a way to improve undergraduates literacy skills (Behler 135). Gloria Leckie concluded that students develop a coping strategy when searching for information rather than an information-seeking strategy when confronting the reality of students individually bringing class assignments to the reference desk (Leckie). They may also have a naïve understanding of what exactly is available on the internet.

Gordon Crovitz reported the shock Bob Woodward experienced when he learned that select journalism students at Yale thought they could find the details of the scandal merely through searching the internet. Steven Brill, the Yale professor who taught the journalism class, confirmed that every year almost every student thought they could discover the information used to expose the Watergate scandal through a search on Google (Crovitz). Such misplaced trust in the availability and accuracy of internet information clearly needs to be overcome before students recognize the importance of considering other sources. If students are happy cruising the web, what brings them into the library?

Ethelene Whitmire conducted a longitudinal study of 1,046 students during their first three years at University of Wisconsin-Madison. She found that students most likely came to the library to study, use the photocopiers and the computers. The library services most often used were circulation and reference,

although very few participated in reference consultations, attended instruction sessions, or used interlibrary-loan, and reference consistently declined during the three years of the study (Whitmire).

This finding should be of concern to academic librarians. ... Several factors may be associated with this decrease. The decline might reflect negative experiences with library staff of lack, of knowledge of what services library staff can provide. Other studies have found that students preferred to get library assistance from their peers or from faculty members. The decline in asking the librarians for help might also be attributed to undergraduates' library anxiety—that is, fear of appearing foolish. Previous research also suggests the quality of the reference interview may be a factor. Undergraduates in the Washington State University study cited reference assistance as one of the least satisfying library services. (389)

A few years earlier, Dawn Talbot and Gerard Lowell found undergraduates at UCSD primarily use the physical space of the library to study, and were disinterested in instructional programs (Talbot and Lowell). In 1994, Kenneth Berger and Richard Hines also found that undergraduates used the library to study and to access reserve material. However, they found that reference librarians were used more than any faculty, graduate students or university staff (Berger and Hines).

Conclusion

Lipow concludes that “[t]he Search engines have already won the competition” (310) but the picture is far more complex. Through surveying a number of various sources briefly considered here, it should be clear that technological advances will migrate to the classroom. Information will become more granular and occupy a broader range of formats. As it does, sources need to be more carefully scrutinized for reliability and authenticity regardless of the database used. More sophisticated discovery tools bring the promise of focusing a search, but whether the algorithm filters unwanted information or censors intellectual freedom has yet to be seen. Irrespective of the tools available, students must first be weaned of habits learned over thousands of searches in an electronic environment without needing to critically evaluate the results of their query.

Solutions to appropriately integrating the wider range of sources available on the web begin with the recognition that there is a breadth of appropriate information available through the web. In order to access this content, students need to accurately describe what they need, recognize how individual sources fit together, and learn to choose the most appropriate source rather than the first one they encounter. Given the complexity of available resources, the sophistication of discovery tools, and the reluctance or overconfidence of students, using every interaction as a teaching moment can acclimate undergraduates to the new environment. “We need to embrace instruction, whether provided in person or online, as the most effective marketing tool we have at our disposal (Palmer 576). “If students had successful library experiences during their early college years, they continued in these activities over time (Whitmire 384).

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Making Your Library (Pin)teresting! Using the Online Pinboard to Promote Library Resources

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Abstract

Pinterest is one of the latest social media tools available on the Internet. On a very basic level, it is a virtual bulletin board for organizing web site images. Since it is largely image- rather than text- based and is simple to use, it has great potential for promoting library resources and services to a wide range of library users. The visual aspect can support the needs of users with different learning styles, as well as individual faculty teaching styles. It can also be used as a means to highlight campus and local events, or serve as a teaching enhancement tool. At MCC-Longview Library, we utilize Pinterest to promote our services and resources to the Millennial generation of students as well as faculty and the general public. This session will cover the basics of setting up a Pinterest account and provide examples of some of the promotional and curriculum support applications that MCC-Longview Library has found to be particularly effective.

Give Them the Gift That Keeps On Giving – Providing Meaningful Tools for Student Employee Success

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Abstract

Student employees often make up a large portion of a library's employee pool. To ensure consistent customer service we must be able to rely on our students to provide the same professional atmosphere as our full-time staff. At Loras College, we have created a path for students to successfully bridge the divide between functioning as a college student and functioning as an employee. We strive to prepare them for future employment by providing them with as close to a real world work environment as possible. This process begins when they are interviewed and continues through training, evaluations and on-the-job guidance. While doing this, it is essential to keep in mind the reality that a college education is their top priority.

Our student employees are the "face of the library" and may be the only contact other students have with our services. We keep this in mind when planning for their overall achievement as library employees. Some of our tools for success includes online application forms, regular evaluations, job descriptions, a success manual, a procedures/ policies manual, a project sheet, a "who to call" list, call number flash cards, shelving sheets, themed meetings at the beginning of each semester, employee of the month recognition, substitute of the month recognition, a "what if" box, and more. None of this has been achieved without trial and error. The tools that have been particularly useful, those that were not ultimately successful, and ideas for the future will be shared.

We Built It, Why Didn't They Come?

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Abstract

Distance education is becoming ubiquitous within higher education -- more online courses, more students taking them and more faculty members teaching them. In response, many libraries have expanded their online holdings to make access and discovery more convenient for both local and distance users, and have created services for distance learners and teachers. Unfortunately, distance students and faculty may be unaware of these services and resources: if you build it, they might not come. This session will describe the multi-faceted approach taken by librarians at Kansas State University Libraries to bridge the gap between what has been built for the distance learning population and what that population uses.

Central to these efforts was a survey designed to simultaneously educate distance patrons and faculty about the Libraries' services and resources and gauge their level of awareness and use of those services and resources. This survey was distributed to all Kansas State University (K-State) undergraduate and graduate students who had taken a distance course at K-State during the 2010-2011 academic year. It was also distributed to all of K-State's faculty who teach distance courses. The development and design of this survey will be described briefly and lessons for successful adoption of this method by other libraries will be highlighted. Significant attention will be given to the results of the survey, including both expected and unexpected responses. The Distance Education team expected for example, that many distance students were unaware of library services and resources, but the number of students who expressed no knowledge or use of distance-specific services and learning environments was shocking. The survey results revealed a need for intensive promotion and marketing of library services and resources for distance patrons and faculty.

The bulk of this paper will be spent discussing ways in which the Distance Education team has responded to the gaps identified by the survey, and how these measures could be implemented in other libraries. Many steps have been taken to promote the Libraries to distance learners and teachers, including the revision of distance student webpages, the creation and implementation of a toll-free help number, the creation of student and faculty flyers, and the organization of distance learning theme weeks for the Libraries' social media efforts. The Distance Education Team also met with representatives from the Graduate School and the Division of Continuing Education to share results and brainstorm new ways to reach out to this population. These and many other current activities are discussed in detail. The paper concludes with a discussion of other avenues for promotion and outreach to the distance learning population including liaison work with distance program coordinators, creation of specialized library programming and instruction for distance programs, and the centralization of services, resources and online collections.

If you build it they probably won't come -- not unless promotion is coordinated in a comprehensive, wide-reaching way. This paper equips academic librarians with the ideas and tools necessary to do that.

Introduction

The Association of College and Research Libraries' *Standards for Distance Learning Library Services* (2008) specifies that libraries should "regularly [survey] distance learning library users to monitor and assess both the appropriateness of their use of services and resources and the degree to which needs are being met and skills acquired." Although the standards do not define the term "regularly," their stated goal of ensuring that academic libraries meet the research and information needs of distance learners leaves little doubt that it is appropriate to conduct a survey whenever librarians charged with meeting the needs of distance learners are ignorant of those needs, as occurred at Kansas State University Libraries (KSUL) following a structural reorganization which took place in 2010.

In May 2011, KSUL's Instructional Design Librarian established a Distance Learning Team (hereafter referred to as *DLT*) comprised of representatives from KSUL's two largest public services departments: Faculty and Graduate Services (FGS) and Undergraduate and Community Services (UCS). Although *DLT* was anxious to begin improving services and marketing efforts, the team decided to minimize the likelihood of solving non-existent problems by heeding the ACRL *Standards*' call for a user survey. This paper describes the survey's goals and items, presents key results (including the development of the survey instrument as an educational tool), outlines some of the changes *DLT* subsequently initiated to bolster services and marketing, and discusses plans for future service improvements and assessments.

Background

Kansas State University is a land-grant university with annual enrollment of around 23,500 students. During the 2010-2011 academic year, 6,480 students took at least one distance education class (Kansas State University 9). A substantial portion (35.5%) of those students took no in-person classes (4). Many of the students who took distance courses were enrolled in one of the Division of Continuing Education's (DCE) distance programs. These include 9 Bachelor's degree completion programs, 5 Bachelor's minor programs, 22 Master's degree programs, 1 Ph.D. degree program, and 20 certificate programs.

KSUL provided few special services to distance learners prior to 2001. During the 1990s, the Division of Continuing Education used one of its own paraprofessionals to provide library services to distance learners. Other early distance learning services were described in a paper by Marcia Stockham and Beth Turtle, two librarians who focused part of their outreach on the distance student population. According to Stockham and Turtle (2004), when online resources began to proliferate, librarians and representatives from DCE reviewed their respective services for distance students and implemented changes to better meet student needs. Those changes included "new Web pages, electronic reserves, remote authentication using EzProxy, promotion of services to students in DCE orientation packets, and a virtual reference service" (332). Stockham and Turtle also sent a web-based survey to students and faculty enrolled in or teaching distance courses during the 2003 spring semester. The goals of their survey were to assess awareness and use of library services, to discover which of those services were most valued, and to learn what additional services were desired.

Stockham and Turtle concluded from survey responses that knowledge of library services had not spread by word of mouth and that students were not actively seeking out information about what the Libraries could do for them. They recognized that simply building services was not enough; active promotion was needed as well. Consequently, KSUL sent distance faculty a list of FAQs (with answers) about library services and posted the document on a distance learner library webpage. Subject librarians began e-mailing distance faculty to offer instructional support and to request that they promote library services to their students. They also began e-mailing distance students to inform them of what resources and services the Libraries could provide. In addition, KSUL began offering interlibrary services to all students and began shipping library materials to distance patrons. Because K-State Libraries responded robustly to the needs of distance learners, the Division of Continuing Education chose to phase out its library facilitator position.

In the years following these improvements, KSUL has made additional changes to better meet the needs of distance learners. These changes include: dramatically expanded breadth and depth of electronic

resources, significant reductions in interlibrary loan delivery time, implementation of an online chat service staffed during all of the reference and circulation desks' hours of operation, implementation of LibGuides, creation of a searchable database of frequently asked questions, and authoring of blog posts and tweets to educate patrons about services. Unfortunately, even as KSUL increased capacity to meet the needs of distance learners, its librarians slowly stopped marketing to distance faculty and students. This was due in part to the 2010 reorganization, but more so because of the assumption that library services and resources for distance students were at that point known and utilized by distance students.

After the Libraries' reorganization, many of the librarians who had been subject librarians for several years took new positions: some in the public services, but others in administration and the Scholarly Communication and Content Development departments. Librarians in the newly established UCS and FGS departments did not know what communications, if any, DCE was sending students and faculty. They also did not know if distance faculty were promoting library services or if distance students were using library services. Thus, the newly formed Distance Learning Team (hereafter referred to as the *DLT*) recognized the need to conduct a new user needs and awareness survey.

Literature Review

Recently, the Institute of Education Science's National Center for Educational Statistics reported that from the year 2000 to the year 2008, "the percentage of undergraduates enrolled in at least one distance education class expanded from 8 percent to 20 percent, and the percentage enrolled in a distance education degree program increased from 2 percent to 4 percent" (Radford 3). Not surprisingly, several academic libraries have recently conducted surveys designed to learn the information needs and preferences of distance learners and faculty. Nearly all of the surveys (Hensley and Miller; Kvenild and Bowles-Terry; Shell, et al.; Tipton; Shaffer, Finkelstein, and Lyden; Jerabek, McMain, Hardenbrook, and Kordinak; and Cooper and Dempsey) revealed that this population is relatively unaware of many of the library services available. Several researchers reported startling statistics, such as only 25% of the off-campus students reporting that they had visited the libraries' home page (Jerabek, McMain, Hardenbrook, and Kordinak). Many suggestions have been made to improve awareness and usage of library resources by the distance learning population and this paper is designed to add to that growing body of actionable possibilities.

Methods and Procedures

The DLT drafted several questions based on the surveys used by Stockham and Turtle and consulted with KSUL's Service Quality Librarian and with Stockham and Turtle to combine similar questions, refine terminology, and create additional questions. Ultimately, the team developed three separate surveys: a 10 question survey for distance undergraduate students, a 9 question survey for distance graduate students, and a 10 question survey for faculty and instructors teaching distance classes. After receiving IRB approval, the team arranged for DCE staff to e-mail the appropriate survey to all individuals who had either taken or taught a distance course during the 2010-2011 academic year. The team subdivided the undergraduate students and graduate students into two separate groups: those enrolled in distance degree programs and those enrolled in on-campus degree programs.

Both student surveys began with questions about demographics and academic status. After these initial questions, the student survey presented questions to ascertain the following information: (1) the number of distance courses they had completed requiring research for papers, reports or presentations; (2) the extent to which they used KSUL, other libraries, and free resources from the Internet; (3) whether they were aware of each of 13 library services/resources (see table 2) available to them; (4) whether they had used each of those 13 services/resources; (5) their level of satisfaction with KSUL services and resources for distance learners; (6) which three services/resources they perceive as most useful for their distance courses; and (7) whether they had any general comments to share. Each question also provided a box for submitting optional comments. The faculty survey was similar to the student survey in scope. However, rather than asking if faculty had used a service/resource, it asked whether they had suggested the service/resource to their students.

The response rates from the five groups who received the survey were all quite low (see table 1). Even though the data are not necessarily representative of the full population, DLT still received a significant number of surveys and found them useful for forming best guesses and for debunking potential assumptions about the population (e.g., they are all aware of our services).

Table 1

Number of Surveys Sent to each Targeted Population, Number Received, and Response Rates

Target Group	Population Size	Surveys Completed	Response Rate
Undergraduates enrolled in a distance learning degree program	2,104	99	4.7%
Undergraduates enrolled in an on-campus degree program	3,711	106	2.9%
Graduate students enrolled in a distance learning degree program	2,185	213	9.7%
Graduate students enrolled in an on-campus degree program	455	37	8.1%
Faculty and Instructors	338	89	26.3%

Findings

The analysis of the Distance Education (DE) survey results revealed several themes. The authors include direct quotes from respondents to illustrate their knowledge and usage of the libraries as well as their responses to the survey instrument itself as a promotional tool. The paper emphasizes results from off-campus graduate students and instructors since these two groups had the highest survey response rate.

Research at a Distance

The DLT collected data regarding student and instructor perceptions of research requirements in the courses they took or offered online for the previous academic year. An overwhelming majority of student respondents indicated they had taken three or more courses requiring research in the past two years. Unfortunately, their use of libraries and library services (including e-resources) did not coincide with their perceived research obligations as shown in Figure 1, which represents responses to two different questions: How many distance courses required research, and how often were libraries used in your research process on a one to five scale.

This is very likely due to an overall lack of awareness of library services and resources, as discussed in the next section. The majority of distance instructors reported that they required research components in at least one of their DE courses, but more than half of them rated student research skills as *poor* or *mediocre* (Figure 2). This indicates a disconnect between instructor expectation and student information literacy levels.

Awareness and Usage

Although the authors expected a high number of respondents to be unaware of the Libraries' services and resources available to remote users, the team was surprised by the percentages revealed through the survey. Table 2 below reflects the percentage of respondents within each academic status who indicated they **were not aware** of the service listed.

An alarming number of students at both the graduate and undergraduate level expressed little to no awareness or usage of any library resources or services. The vast majority of distance students indicated they rarely used library resources, and instead favored "free resources from the internet" to conduct their

research. Although some students indicated they use KSUL resources, most indicated they never used any library resources at K-State or their local libraries. The graph in Figure 3 indicates library usage among graduate students located off-campus.

Comments on the survey suggested that instructors' lack of awareness and KSUL's insufficient promotion of DE services were the main sources of the less-than-desirable knowledge and usage.

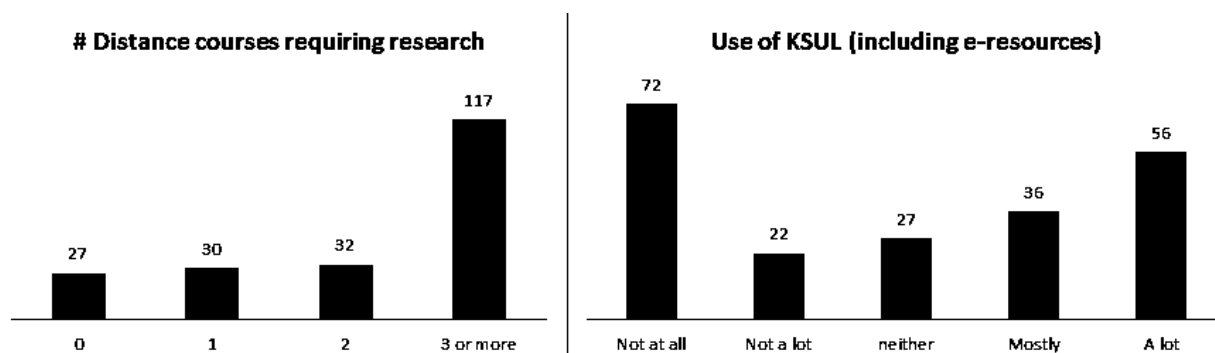


Fig. 1. Required research vs. library usage for off campus graduate students.

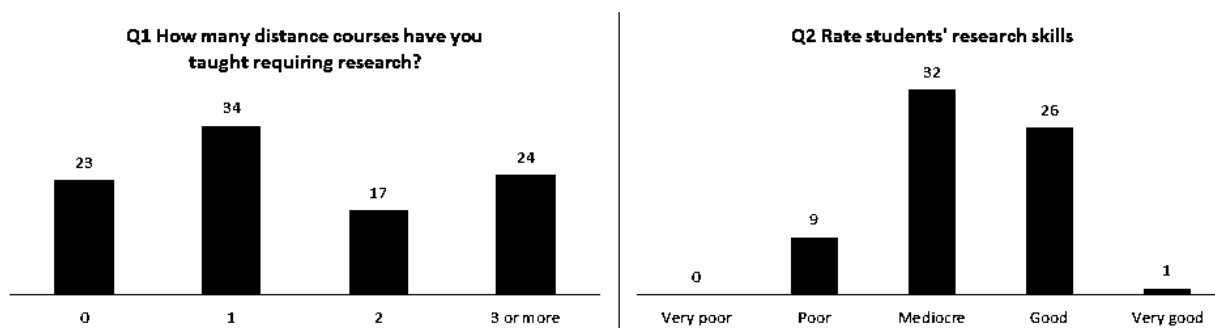


Fig. 2. Instructor research requirements and perceptions

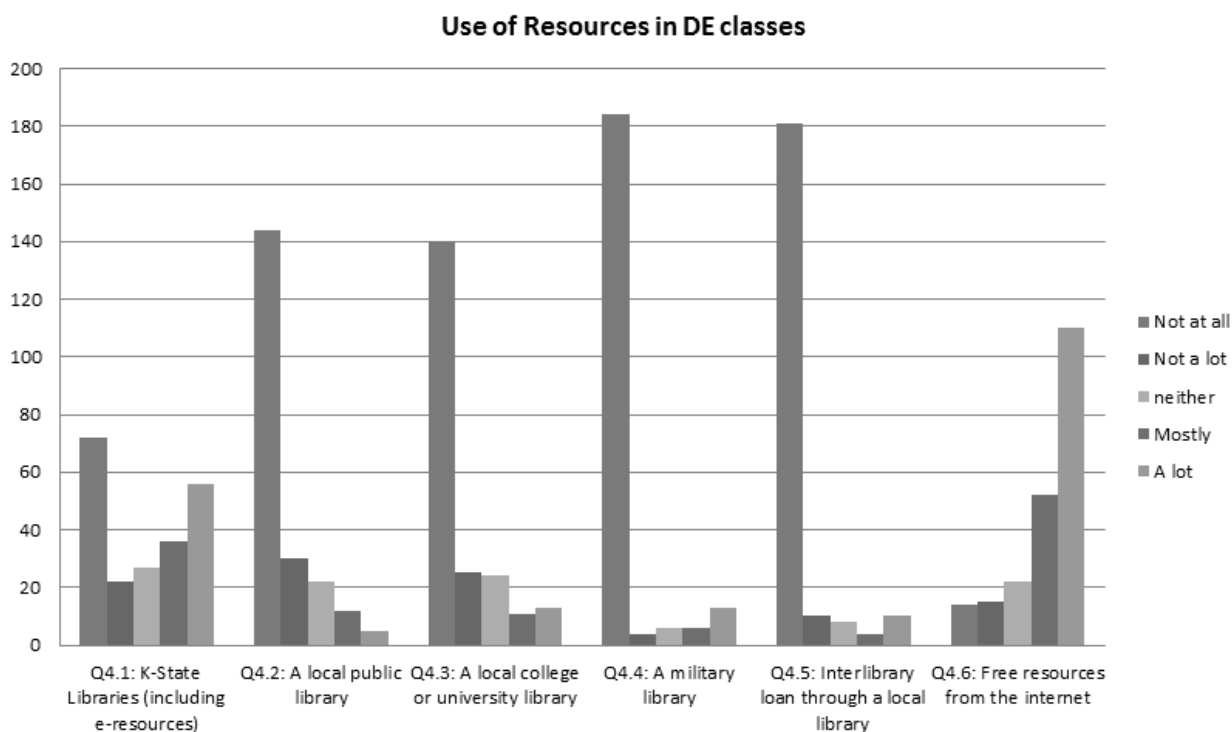


Fig. 3. Use of resources in DE classes for off-campus graduate students.

Student Perceptions of Value

On a more optimistic note, many of the students who indicated they did use KSUL resources found their experience to be highly valuable to their education. Several comments encouraged DLT efforts to help other distance students realize that the same opportunities exist for them, for example: “I am very pleased with the libraries – I simply could not pursue my degree without the fabulous support! Thank you very much!” and “Thank you – without your library services, I would not be able to get the same quality of education. You made a huge difference for me in getting the information that I’ve needed.” But the survey probed deeper to determine exactly which library services and resources proved most valuable for students (Figure 4).

Although all of the services and resources listed were marked as among the three most useful services by at least some of the students, team members felt there was a disconnect between some of the resources identified by students as most useful and the overall awareness of those services in the off-campus graduate population. For example, Refworks, K-State’s citation management tool, although identified as one of the top three most useful resources, was one of the resources distance graduate students were most unaware of on average.

This notion was further cemented in comments such as, “It would have been a great help if someone in the Distance Program had told me about the Library – and how to use it – at the beginning!” and “I was not even aware of the services offered to distance education students by the K-State library” and “I really wish I knew that I could get books delivered.” The disconnect further supports the need for better promotion of library resources to this population.

Faculty Perceptions and Promotion

Perhaps the most surprising finding from the survey was the number of distance teaching faculty who were unaware of what library resources were available to remote students. This was especially unexpected given that many of these same faculty members teach on-campus courses as well. While DLT found that many faculty members were not aware of certain library resources or their availability to distance students, many more were aware of the resources, but never encouraged their students to take advantage of them (Figure 5).

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Faculty and the online course management system are often the only links distance students have to a university and the services and resources provided therein. While DLT can’t force distance faculty to be library champions for their students, team members can help them to understand what is available and provide them data (such as that gleaned from this survey), regarding student need and desire to be provided with library information. In fact, many faculty indicated the same in the comments (e.g., “More advertisement of services”) and even provided some creative ideas for doing so, such as wording for syllabus inserts.

The student and faculty comments calling for more and better promotion of library services and resources, combined with the general lack of awareness and usage/encouragement, pointed to a definitive need for a concerted and multi-faceted promotional campaign to the distance population. They also illustrate the reasons why “we built it and they didn’t come.”

Table 2
Awareness of KSUL services and resources

Awareness		
Q#	Question	% NOT aware
Q1	K-State Libraries has web-based help pages, including a page specifically for distance learners	Faculty: 67% (66 of 98) Undergraduates, off campus: 55% (59 of 108) Graduate students, off campus: 44% (102 of 232)
Q2	There is a course in your K-State Online organizer called "Research Help at K-State Libraries"	Faculty: 43% Undergraduates, off campus: 20% Graduate students, off campus: 24%
Q3	The K-State Online course "Research Help @ K-State Libraries" has a page specifically for distance students	Faculty: 69% Undergraduates, off campus: 60% Graduate students, off campus: 44%
Q4	K-State Libraries can deliver its print materials (books, maps, journals) and physical media items (videos, music cds) to distance learners	Faculty: 41% Undergraduates, off campus: 68% Graduate students, off campus: 54%
Q5	If a distance learner needs a resource (book, article, video, cd, map, etc.) that K-State Libraries do not own, K-State Libraries will attempt to find it and deliver it	Faculty: 24% Undergraduates, off campus: 61% Graduate students, off campus: 45%
Q6	Distance learners can access K-State Libraries' databases from off campus using any computer connected to the Internet	Faculty: 3% Undergraduates, off campus: 26% Graduate students, off campus: 16%
Q7	Distance learners have access to full-text online journals (e-journals) through K-State Libraries	Faculty: 8% Undergraduates, off campus: 35% Graduate students, off campus: 19%
Q8	Distance learners can access K-State Libraries' e-books	Faculty: 28% Undergraduates, off campus: 56% Graduate students, off campus: 42%
Q9	Distance learners can access K-State Libraries' web-based subject and course guides	Faculty: 38% Undergraduates, off campus: 54% Graduate students, off campus: 49%
Q10	Distance learners can obtain immediate help from a librarian through online chat, telephone or email during K-State Libraries' service hours	Faculty: 21% Undergraduates, off campus: 42% Graduate students, off campus: 31%
Q11	Distance learners can arrange consultations with librarians for in-depth research assistance	Faculty: 39% Undergraduates, off campus: 58% Graduate students, off campus: 56%
Q12	Distance learners can use the online tool RefWorks to keep track of resources and automatically generate references cited lists	Faculty: 38% Undergraduates, off campus: 57% Graduate students, off campus: 52%
Q13	K-State Libraries has links to web-based citation guides	Faculty: 41% Undergraduates, off campus: 52% Graduate students, off campus: 50%

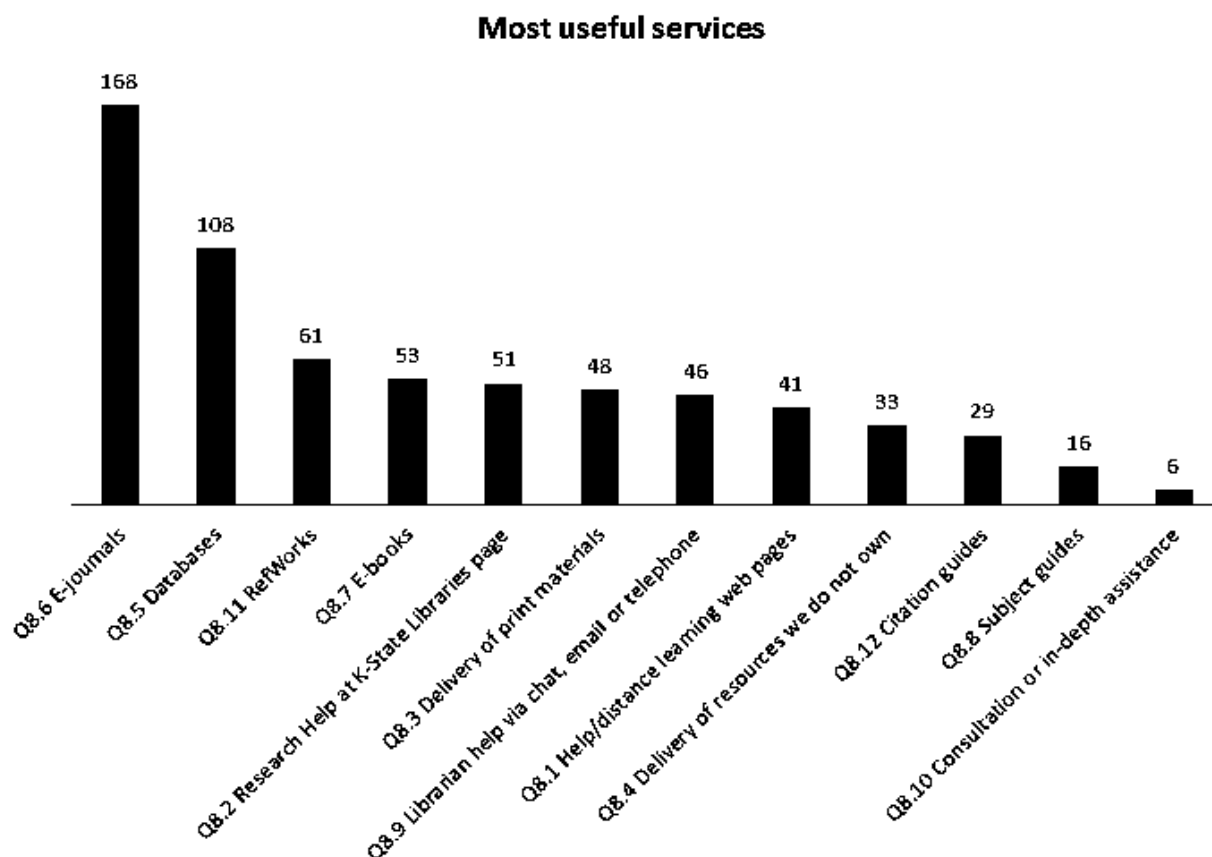


Fig. 4. Most useful services selected by off-campus graduate students, n=213

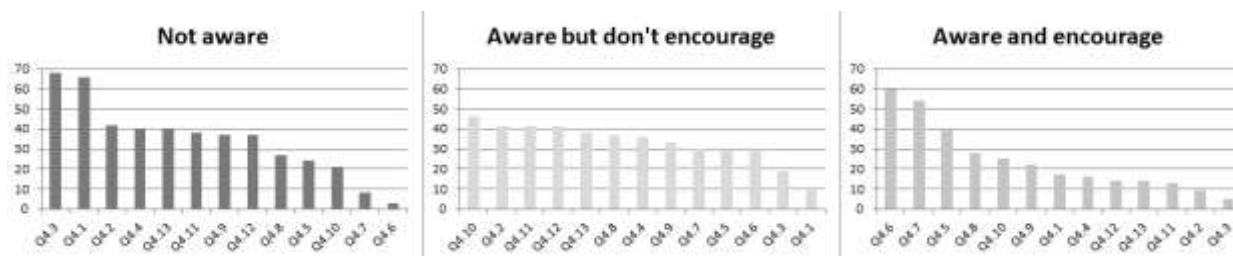


Fig. 5. Faculty promotion, n=89

Survey Instrument as Educational Tool

Although all three surveys were designed to be informative, the DLT was pleasantly surprised by the number of respondents who praised the survey instrument as an educational tool in and of itself; an aspect also noted by Stockham and Turtle. Many students indicated in the comments sections that though they didn't know about particular services and resources prior to the survey, the knowledge gained from the survey would lead to further exploration and use. One student commented, "This survey turns out to be a great education tool regarding services available through the library. I look forward to investigating these resources further." The faculty responded similarly. One faculty member even phoned the Instructional Design Librarian to proclaim that while she generally hates surveys, she found this one informative and requested a meeting for further collaboration in her course.

Taking Action

Based on our survey results, it was clear that K-State Libraries' services to distance learners be made more prominent and advertised them more effectively. To do so, the team has implemented a number of

initiatives. Members began by revamping the Distance Education web page, replacing outdated information and updating the layout. In conjunction with this improvement, the team edited the Frequently Asked Questions (FAQ) list, tagging a number of posts with a “distance education” tag and ensured that distance education students were considered in as many questions as possible. For example, the answer about how to make an appointment with a librarian now specifically notes that distance students can use our form to make a phone or e-mail appointment. The DLT added one final FAQ that consolidates all the information about distance student services (“Distance Students: What Library Services are Available to Them”). The team also implemented a toll-free number to make it easier for distance students to contact the help desk. This number will be included in all promotional materials targeted at the distance population.

The DLT used a number of different opportunities to promote services for Distance Education students and faculty. The Libraries’ Communications and Marketing Department does “theme weeks” on a Twitter feed, and DLT arranged to have a week for Distance Education services. The team also created two handouts highlighting services – one for distance education students, and one for faculty. Both handouts were created in a concise, bullet-point format to allow for quick reading. These handouts will be distributed to all distance education students and faculty in their welcome materials.

To enhance external promotion of services, the DLT collaborated with DCE and the Graduate School. Members of our team met with representatives from both, and reviewed the very outdated information about the Libraries that was present on their websites and provided new text for them to include. DCE encouraged DLT to create an article for the quarterly newsletter and to provide content to post in their social media (Facebook) feeds.

Team members were also able to take advantage of two important ways of becoming involved with online course management software at K-State entitled, K-State Online (KSOL). First, the DLT had a “librarian” role created within KSOL online classes, allowing librarians to be embedded in the class. The special librarian role, which does not allow librarians to view grades or other confidential information, alleviated concerns that some faculty members had about assigning an “instructor” role to librarians. DLT were also invited to contribute to a course called E-Learning Best Practices in KSOL. The course, created by our Information Technology Assistance Center (iTAC) is used by Distance Education teaching faculty and by iTAC instructional designers to help faculty create online courses. The team included videos, handouts, and information about library resources in this course.

Ideas for the Future

While DLT has already taken steps to improve promotion and marketing of library services and resources to distance faculty, instructors, and students, there is much more that can and should be done to ensure equitable provisioning of services to these populations. The team is convinced that the most effective and expedient way to boost students’ awareness and use of library services is to collaborate with the advisors and coordinators of each distance learning program. As Kvenild and Bowles-Terry noted, these individuals have knowledge of the distance learning curriculum and are gateways to gaining the attention of both faculty and students. They can also help identify faculty who would be receptive to working intensively with librarians to provide meaningful research experiences for their students. DLT plans to approach a small number of such faculty and offer to serve as embedded librarians for their courses. As embedded librarians, team members can develop tutorials, targeted LibGuides, and interactive quizzes; collaboratively monitor message boards; establish online office hours; and provide live instruction. Assessment is a vital component of this plan. If the team collects outcomes data such as information literacy skills improvement, DLT would then be able to make evidence-based appeals to other faculty.

Cooper and Dempsey’s study led them to conclude that librarians should target faculty who are preparing to convert an on-campus class to a distance format. DLT will develop a library toolkit for distance faculty consisting of assignment instructions, a statement for their syllabi that describes library services for students, and examples of LibGuides and tutorials created for other classes. DLT will consult with distance learning program coordinators to identify these faculty and send them the toolkit by e-mail. This

e-mail will include an invitation to consult with a librarian to develop research based assignments and an invitation to have a librarian become embedded in the course.

In addition to offering services to distance faculty, DLT plans to make a number of small but vital improvements to KSUL's electronic resources and informational pages. Many of KSUL's instructional pages are written with the assumption that the reader is on-campus and could easily visit the library. Our team will coordinate a comprehensive review of the website and promote wording that recognizes the needs and circumstances of all students. In conjunction with this initiative, team members will provide educational sessions to inform all content creators about the needs of distance learners. By advocating for distance learners, DLT hopes to create more enthusiasm for e-resources and the tools which make them easier to access. Similarly, the team will encourage efforts to digitize local collections and purchase electronic equivalents of print and microform holdings.

Perhaps most important of all these actions is our plan to assess how well KSUL is serving the needs of distance learners, faculty, and instructors. In the spring or summer of 2013, DLT will repeat this study using identical instruments. The team will be able to draw conclusions about the effectiveness of the changes initiated by comparing the data from the 2011 to the 2013 surveys. In addition to assessing awareness and use of library services and resources, DLT will collect as many syllabi for distance classes as possible and examine them to learn what information needs the faculty are creating for distance learners. The team will then identify which of those needs are the most likely to go unmet and address them. DLT will also start conducting regular surveys and focus groups with distance faculty and instructors to learn about the obstacles and barriers they experience in their efforts to promote use of library resources and services to their students. The team will look to the survey conducted by Kvenild and Bowles-Terry and Shaffer et al. for examples of such items. The results of these assessments will be used to identify opportunities for materials purchases, targeted hires, and service enhancements. DLT will also share the results with administrative staff to help ensure the needs of distance learners, faculty, and instructors never again recede into the background.

Conclusion

DLT survey results and surveys conducted eight years earlier by Stockham and Turtle demonstrate quite clearly that services and resources do not promote themselves. They also reveal that many distance learners, faculty, and instructors either do not endeavor to find out what libraries can do for them, or are unsuccessful in the attempt. If you build it, there is no guarantee that they will come, even if it is incredible. While promotion and marketing might entice more of them to come, a better strategy is to rethink the dynamics of the situation. Education involves much more than communicating facts, teaching skills, and introducing theoretical frameworks. It also includes challenges that create new needs and new motivations to explore, and the creation of environments to meet those needs. The environments should have entrances throughout the landscape, on libraries' pages, in online classes, in syllabi, and interwoven into the structure of assignments. Students and faculty will come if they know the landscape exists and expect it will help them.

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Give your Instruction a Boost of Creativity!

Benjamin Oberdick
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Abstract

Many people are under the impression that they are not creative, have no capacity to be creative, and cannot improve or increase their creativity. In this interactive presentation, the presenter will show that everyone has the capacity to be creative, and with a little time and effort, can increase and improve their professional and personal creativity.

This interactive workshop will begin by asking participants to self-assess their own creativity. We will then compare the results to a study that asked young people about their personal creativity. This discussion will launch us into a discussion of, and definition for, creativity.

Then, we will tackle some of the common barriers that hamper us from harnessing the creativity that exists inside us all: exhaustion, distraction, laziness and a lack of focus. By breaking through these barriers, we can learn how to enhance and strengthen our own personal and professional creativity. The presenter will break down the process of becoming more creative into simple concepts and ideas that anyone can follow and utilize to increase their own creativity: cultivating your curiosity and interests, promoting flow in your everyday life, protecting your creative energy, internalizing support structures, and applying your creative energy. Many of these steps will include engaging activities for the participants to complete, and which they can take home with them to use in the future, in order to boost their creativity; for example, we will brainstorm ideas for how to make an everyday, mundane activity, more fun, interesting, and exciting so that that activity is transformed into a more productive and creative time.

During the internalizing support structures portion of the workshop, we will talk about the importance of knowing yourself inside and out; participants will be asked to name their most obvious characteristic (how their best friend would describe them) and then think of the opposite of that trait. Participants will then brainstorm ways to strengthen that opposite trait and will share their thoughts in small groups.

Participants will also be asked to think about their own instruction during this interactive session. During a discussion of the importance and value of breaking things down to their most basic elements, participants will be asked to close their eyes and think about what's really important for their students to learn from their class, course, or lesson. They will be asked to make a mental scene or movie about what this looks like. Then, they will open their eyes and describe what they pictured to one of their neighbors.

By participating in these, as well as other, engaging activities, participants will learn how to improve and harness their personal and professional creativity and also take away valuable tips and techniques to improve the creativity they display in the classroom.

Size Doesn't Matter: Use Responsive Design to Fit On Any Screen

Roy Degler
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Abstract

From smartphones to tablets, our patrons are accessing our sites from a large variety of devices. Is your website ready? Learn how to design and build an appealing functional website that responds and adapts to the patron's demands.

Libraries frequently built completely separate mobile websites that offered a simplified subset of the full site. In addition to reduced content, the library was left with two websites to maintain.

Using Responsive Web Design techniques, this presentation focuses on transforming your website so that a single design will adapt and respond to the user's device. Explore using Foundation, a CSS framework, to craft an appealing functional design to meet our patron's needs.

If You Build It, They Will Come: A First-Year Assessment of a Newly-Built Academic Library

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Abstract

The University of Oklahoma-Tulsa campus, embracing a mission of community engagement and outreach, includes academic programs in medicine and the health sciences that run in tandem with graduate programs in social work, architecture and urban planning, organizational dynamics, telecommunications, and library and information sciences. It is a unique setting, and our students – all commuters and many ‘returning learners’—have unique requirements of their library.

The new Schusterman Library building at OU-Tulsa opened in 2011, and was designed with information literacy education and customer service as core operational priorities. This paper will focus on the first year of operation in this new state-of-the-art facility and how services and programs are being assessed for their effectiveness with our student users. This process paper includes:

The Knowledge Commons: Because we envision libraries as collaborative community spaces, the nerve center of the library is the Knowledge Commons. Equipped with both PCs and iMacs, this open space encourages student engagement and interaction. Servicing the Commons is a team of seven graduate assistants. Collectively, they staff the “AskHere” desk and offer the first line of reference assistance – through a blend of traditional desk time, chat reference, and roaming reference models – and they are backed by the collective experience of our reference librarians and on-site writing tutors. This unique peer-to-peer reference service encourages an informal atmosphere in which students feel comfortable asking for on-the-spot assistance.

The Arts & Information Gallery: The 900 square foot digital Arts & Information Gallery, equipped with five plasma screens, furthers information literacy education through its varying multimedia exhibits. The first exhibit focused on the history of OU-Tulsa, while the second was a traveling exhibit from the National Library of Medicine. The third exhibit, OU-Tulsa Reads, engaged the campus community through interviewing students, staff and faculty about inspiring books. A 20x20 event (talks accompanied by 20 slides, each showing for only 20 seconds), was held last October to introduce the campus to the Gallery, allowing participants to present on fun, wide-ranging topics.

Study Spaces: Compared with the previous facility, the Schusterman Library more than doubles the available seating, offering many different options for students. A new quiet reading room provides a comfortable environment for independent scholars or for students who need to work together in relative silence. Study carrels are a good option for individual students, while large tables, casual seating areas, and two custom-built student conference rooms offer spaces for group work.

Our paper will include two very distinct voices with different points of view – One is that of the library director who oversaw the four-year project of building the new library; the other is that of a library school graduate student who works as part of the team in the Knowledge Commons. The authors discuss in detail how the larger planning effort meets the day-to-day expectations and needs of our student clientele are of primary importance in this overall assessment effort, and how our assessments will guide the library in its future planning efforts.

Introduction

The University of Oklahoma-Tulsa (OU-Tulsa) campus does not fit any particular mold. A commuter campus with a student population hovering just under 1,700, OU-Tulsa has enjoyed a decade of rapid growth and a successful mission of community engagement. Serving primarily graduate and professional program students, the OU-Tulsa mission of community engagement has manifested itself in most every academic discipline on campus. OU-Tulsa includes graduate-level academic programs in library and information studies, organizational dynamics, human relations, telecommunications, and public administration. These run in tandem with professional health sciences degree programs including public health, nursing, pharmacy, physician assistants, allied health, and the School of Community Medicine.

Currently a two-year clinical program, but being redesigned into a full four-year medical school (starting in Fall 2015), the School of Community Medicine forms a kind of touchstone for the entire campus. Embracing the philosophy that you cannot treat the individual without considering the broader public health concerns of the community, this new school will focus on giving MDs a baseline education in public health and social medicine, with an emphasis on finding ways of reducing health disparities in urban populations.

This mission has informed the efforts of the other academic programs as well. The Architecture and Urban Design program looks to uncover ways of improving the public good through thoughtful application of design principles in urban settings, with better access to public services a major consideration. The Social Work students work alongside our medical students to teach each other how to address the health needs of underinsured populations better. Most every academic program on campus has some community outreach component directed at improving the lives of the citizens of Tulsa, whether it is finding ways to introduce early childhood education for low literacy populations or using advanced medical informatics technologies to support the concept of medical homes and improve health record access for practitioners in the region.

Construction began on the Schusterman Library in October 2009. This new 22,000 square foot facility was to be the last major construction item on the 60-acre midtown campus and would more than double the size of the previous library facility. Plans for the new library included many features that had not existed in the prior space.

These features included a new Knowledge Commons (see fig. 1), an integrated student work environment on the first floor of the two-story building that included computer workstations on large desks, an AskHere desk (see fig. 2) staffed primarily by graduate students from the School of Library and Information Studies, a writing services center staffed by professional writing tutors, offices for the professional reference and education services librarians, and large study tables and casual seating areas.

Another new space, The Arts & Information Gallery (see fig. 3), is a 900 square foot area on the first floor adjacent to the main entryway. The Gallery was established to serve both as a center of community outreach, by displaying various exhibits of general community interest as well as showcasing the scholarship and research efforts of OU-Tulsa's own faculty and students. With an elaborate audio-visual display, including five large-screen plasma monitors, sound system, and sound dampening walls, the Gallery has successfully hosted an exhibit (see fig. 4) on the history of the campus, a traveling exhibit from the National Library of Medicine about contemporary African-American surgeons, a celebration of the book called "OU-Tulsa Reads," a photography exhibit examining world cultures, and a whimsical look at zombies.

Lastly, with the inclusion of compact mobile shelving to contain the print collection in a limited footprint, large areas of the library were able to be set aside for student study spaces. These spaces include two student conference rooms on the first floor, equipped with whiteboards and plasma monitors, and a large quiet reading room on the second floor with comfortable seating areas (see fig. 5). Study carrels line the windows on the second floor for independent students, while large tables with chairs occupy the middle of the floor for group work. With this new facility, student seating in the library has more than doubled, from 100 seats at the old site, to over 210 seats in Schusterman Library.



Fig. 1. Knowledge Commons.



Fig. 2. AskHere desk.



Fig. 3. Arts & Information Gallery.



Fig. 4. Arts & Information Gallery exhibit.

In our first year in this new space, we have noticed many student behaviors and characteristics. Our primary clientele at OU-Tulsa is the student user, and all of our students are commuters, meaning that they often look for study spaces when not in class. A strong percentage of our students are also returning learners, and over three quarters of the student population is female. Many of our students have families—children and sometimes spouses or significant others—and the overwhelming majority of our students are currently employed, meaning that they have busy work lives and personal lives, in addition to the time they need to devote to their studies. This makes the library valuable as a place as well as a service—The Schusterman Library is often a place to find quiet and solitude in order to focus on scholarship, or a place for small groups of students to convene to work on their projects. In the 2011 student satisfaction survey (OU-Tulsa Student Satisfaction Survey) the library had the highest satisfaction rating of any service unit on campus.

This paper will include two very distinct voices with different points of view—one is that of the library director who oversaw the four-year project of building the new library; the other is that of a library school graduate student who works as part of the team in the Knowledge Commons.



Fig. 5. Quiet reading room.

Literature Review

An evaluation of the library literature on design analysis as part of a post-occupancy study reveals very few peer institutional analyses for comparison. Systematic post-occupancy evaluations have consisted primarily of user-based studies, often conducted as surveys, and examining only relatively rigidly considered design elements such as lighting, furnishings, ambient noise, heating and cooling (James and Stewart). Only more recently has a new dynamic emerged, where libraries have been considered as learning spaces and where space design is examined for how spaces are being used as a consideration of form rather than function (Joint Information Systems Committee). A more anthropological approach to the post-occupancy

study would need to include observational research with an approach that is qualitative rather than quantitative in nature (Latimer). Because space planning for the Schusterman Library was designed around a combination of services and information literacy principles, the observational method was employed by the authors to provide this first-pass analysis as a pilot study and guide the next steps for a more thorough post-occupancy evaluation (Neal, Ruth E., et al.).

About Us

Megan Donald was hired in July of 2010 during the planning phase of the new Commons. Newly enrolled in the University of Oklahoma's School of Library and Information Studies, she brought with her fresh ideas and a willingness to innovate. Previous to this she earned a law degree with a focus on public policy. From these academic endeavors she fosters an interest in medical and health law research.

Stewart Brower began work as the library director in October 2007, by which time much of the campus building plan was wrapping up with the final item being the new library building. Planning efforts, begun before his hire, were continued and changed under his direction. His background includes over 20 years of service in health sciences libraries, with an emphasis on information literacy education and web services. This is his first directorship.

Discussion

To most accurately represent the points of view of the two authors, these sections will be presented in their first-person, individual voices.

Knowledge Commons - A graduate assistant's point of view

When I joined the Library, eleven months before the move into the new building, the concept of the Knowledge Commons was still gestating in the minds and vocabulary of the graduate assistants. Charged with developing a brand, we were a group of graduate assistants envisioning a technology-infused and customer-service driven commons that would encourage student collaboration. This goal of student collaboration within and across academic disciplines is also reflected in the ever-evolving AskHere team; while most graduate assistants hail from the School of Library and Information Studies, at times the team has included students from such diverse programs as telecommunications and organizational dynamics. Looking back, it is clear that our successful collaboration during the initial planning effort was a microcosm of what we hoped to achieve, and in fact are achieving, in the Knowledge Commons.

The success of the Knowledge Commons lies in the peer-to-peer reference model. Engaging directly with a fellow student allows for a more candid interaction, during which the student feels comfortable admitting any research or technological shortcomings. On two occasions students have divulged their

concerns over possible plagiarism in their papers—a candid confession unlikely to occur between a student and a traditional librarian perceived as standing on the faculty side of the academic division. During these interactions I was able to refer the students directly to our on-site writing tutors. Without the level of comfort and camaraderie peer-to-peer reference provides, these concerns would likely not be expressed.

The home base of the graduate assistant-staffed Knowledge Commons is the AskHere desk, an open and spacious desk that allows for interactive reference instruction. Many of the questions I field are technology ones. Since the AskHere desk sits at the focal point of four rows of computers, any student needing computer help naturally approaches it, or in some way catches the attention of the graduate assistant staffing it. Frequently the student's question will concern word processing or printing, but the simplicity of the initial question belies the opportunity it provides to inquire about any other research needs. Through these interactions I casually connect with the student, asking about their paper topic and research progress.

Ever-present complimentary coffee also lubricates the initial contact with students, creating a casual and informal atmosphere. While checking out rotation books and refilling her coffee, a student in the physician assistant program recently regaled me with the story of her first time assisting with a birth. This informal atmosphere even extends to the back wall of the Knowledge Commons where the writing center and two professional librarians' offices are located. With doors that are always open, some students needing more comprehensive instruction choose to bypass the AskHere desk and consult directly with a writing tutor or librarian.

It has been quite interesting to witness the transformation of the students' role within the Knowledge Commons. During the first summer and fall semesters of operation, it was not uncommon for students to approach the AskHere desk and timidly inquire if there was someplace they could talk quietly with their study group. These students still perceived the academic library in its archaic form, as a formal place for quiet solitary study, not as a collaborative, busy, and sometimes slightly noisy environment. But now the commons culture is fairly established and students feel comfortable collaborating and discussing, oftentimes in small groups gathered around a computer.

Knowledge Commons - A library director's point of view

As much as anything, the vision of the Knowledge Commons was to provide a service point where students would be able to work on and complete their projects from beginning to end, and with any level of assistance they might require. That means we provide the equipment, the space, and the expertise needed to help the student with any project, "cradle to grave" as it were.

To that end, I originally saw the AskHere Desk as being a sort of one-stop service point, as much to set appointments for the librarians and the writing center staff as to answer questions. In truth, I think the Graduate Assistants who work the AskHere Desk probably spend as much time helping students with the rather complex pay-to-print service we have as they do any of those other things. But students do come to the Commons in good number, and the services we provide definitely get used.

When the Commons is busy, it is very busy. When it is quiet, it is very quiet. The workload varies considerably through the semester. This can be frustrating for the GAs, but what is very clear is that the students who come to the Commons routinely have begun to rely on having a peer expert nearby who can provide some insight or assistance, no matter what the problem might be. Additionally, the writing services office is a resounding success, and being able to offer those services throughout the day, all semester long, is of exceptional value to many of our learners, particularly to those for whom English is a second language. Writing services seems to have no downtime that I can see.

Arts & Information Gallery - A graduate assistant's point of view

Not only do I have the experience of being a visitor to the Gallery, but I also have the unique experience of planning, developing, and promoting an exhibit. The graduate assistants all worked together to develop a fun exhibit exploring zombies in popular culture, which was featured in the Gallery for the month of

May. While this exhibit was much less educational and scholarly than the previous ones, it still required an enormous amount of planning, coordinating, and researching. As such, I know just how much work goes into planning an exhibit and it is a bit disheartening to see the Gallery so frequently devoid of visitors.

Nevertheless, the Gallery presents a unique opportunity for students to engage with the school's faculty and administrators on a different, more personal level. This became very evident during the "OU-Tulsa Reads" exhibit, which featured video interviews of faculty members discussing books that were particularly influential in their lives. Hearing my own library school professor discussing her favorite book forced me to see her in a new light. Recently, a student approached me asking about the month of June's exhibit, which is a cultural exhibit featuring an OU-Tulsa professor's photographs from around the world. Being a former student of this professor, she was completely unaware, and in awe, of his extracurricular pursuits.

Even though there is a lack of daily visitors to the Gallery, there is usually no shortage when it comes to programming. Two *20 By 20* events, quick presentations by students, faculty, and staff on fun topics, were successful enough to leave standing room only. Furthermore, the programming in conjunction with the "OU-Tulsa Reads" exhibit was also very well-received; students, faculty, and staff came together to hear a local Oklahoma author's escapades into the world of literati. One exhibit program also had the unintended effect of providing outreach to the local public libraries. During a program on library emergency preparedness, connected to the zombie exhibit, a large portion of attendees hailed from public libraries.

I do feel, however, that students aren't exactly sure how to claim the space as "theirs." As it is now, the Gallery is not particularly amenable to students desiring individual study or collaboration. It remains an eye-catching space that briefly attracts walk-through visitors, but has not become a destination. Perhaps the name doesn't suit it—students seem unsure what exactly an 'Arts and Information Gallery' comprises, and where they fit within that. But with a continued focus on multimedia exhibits relevant to students and faculty, in conjunction with interesting programming, the Gallery will eventually become a destination within the library.

Arts & Information Gallery - A library director's point of view

I was unsure how effective the Gallery would be as a space and as a service to the community. Interestingly, I think it has been a considerable success as a service, although as a space I believe we are still finding out how best to maximize its value.

The first right move with the Gallery was to hire a new librarian and give her full ownership of the space. We hired a librarian fresh from the library school program here on campus, one who has continued to have big ideas for the space and has continually grown a program of interesting exhibits that resonate with our visitors. Our second exhibit, "Opening Doors," was a traveling exhibit from the National Library of Medicine that we supplemented with digitized local content. Focusing on the history of African-American physicians in the Tulsa area, this exhibit brought in one comment I found particularly noteworthy:

"These physicians paved my way. Thanks to OU for such a wonderful exhibit."

More recently, an exhibit on cultural photography seems to have captured the imagination of many new visitors; our guestbook is flush with their glowing comments. Additionally, several events we have hosted in the Gallery, including two *20 By 20* lightning talks with OU-Tulsa faculty, students and staff, have been very successful.

As a space, though, it is frustrating to see the Gallery empty some of the time. Occasional walk-through visitors notwithstanding, I would like to see the Library develop more interactive content for this space. I think looking at seating for the Gallery may be important—The bench seating we currently have is somewhat limiting, and tables with chairs might entice more students to use it as a regular study space.

Study Spaces - A graduate assistant's point of view

The most popular workspaces, from my vantage point at the AskHere desk, are the computer stations in the Knowledge Commons. These desks are spacious enough to provide room for a personal laptop, in addition to the desktop computer and an assortment of books and articles. It is quite common to see students researching on the desktop and typing a paper on their laptop, with plenty of elbow room to spare. The spaciousness and higher backdrop on the desks allow students to collaborate without disturbing others in the Commons, or alternatively, provides the solitary student with more privacy. Since this is a commuter campus and there are no dorms to retire to, our 'regulars' have their preferred workstations and will use them for a good portion of the day, leaving only for classes and meals.

Next in popularity and use, the study rooms provide students another opportunity for collaboration. During the final weeks of the semester, as study groups convene to prepare for finals, there is heavy demand for these rooms. For the graduate assistants it has become a bit challenging trying to prevent certain students from monopolizing the study rooms. As such, the large tables outside the study rooms frequently serve as overflow group spaces. Still, during these peak demand times, some students leave the library in frustration when they learn the rooms have been booked for the day.

The soft-seating study spaces on the first floor, consisting of couches and comfortable chairs, are not used as much as their counterparts in the second floor's quiet reading room. I suspect this is due to a lack of electrical outlets for their laptops in the more central spaces, as well as a desire to escape the talking and typing in the Knowledge Commons. The upstairs quiet reading room offers a calming study atmosphere more akin to an old world library; students can be found quietly typing on their laptops, perusing the newspaper, or just relaxing. Most surprising to me is that even with all the various study spaces the library harbors, the traditional carrels tucked away on the second floor, hidden by the stacks, are still popular with students.

Study Spaces - A library director's point of view

One of the hardest things to assess, in my mind, is the use of study spaces. We know from student surveys that group study rooms are at a premium on this campus, and even introducing only the two rooms we could afford for the new building seems somewhat ineffectual. The two rooms are reserved at the AskHere Desk and receive routine use. One surprise to me was that the whiteboards get so much use and the LCD monitors are used very little—With our 'wired' student population, I really thought it would be the other way around.

I do believe that an appropriate balance has been struck between 'busy' study spaces on the first floor and 'quiet' study spaces on the second floor. When we get complaints about noise, it's almost always a second floor user that complains. Thankfully such complaints are few and far between. More recently, some students have suggested adding computers to the second floor, which would likely disrupt this serenity. I'm loathe to pursue it, but we may look to add some more isolated computer workstations on the first floor for those students who feel too exposed when using the Commons.

What is harder to assess is the use of space by the quiet, individual studiers. I occasionally see students at the carrels on the second floor, or at a table, or crashed into a large couch. It is difficult to know if they are getting what they need. You have to assume on some level that what they want is to be left alone, and the fact that we don't necessarily notice them would seem to suggest that it is working for them. But it would be nice to know that all of our students are getting the kind of study space they need. All the furniture planning for the library was with the understanding that we should have as many different and distinct types of space as we could in order to try to meet the needs of every learner. I think we've succeeded in that, but I'm not sure we will ever truly know for certain.

Conclusions

Through these two perspectives of graduate assistant and library director, it is clear that the Schusterman Library has been an overall success during its first year of operation. The forward-thinking Knowledge Commons, multimedia-infused Arts and Information Gallery, and availability of plentiful and varied

study spaces, allow the library to further its priorities of information literacy education and customer service. Megan's and Stewart's perceptions of the use of the library are very much in sync, although they may differ in their ideas of what the library should do going forward.

Early anecdotal and quantitative evidence also indicate the new library has been a success overall. However more data is needed to fully assess the library's impact on the campus. To this end, an official library assessment team comprised of two librarians, a staff member, and two graduate assistants has convened. Data is being collected about the interactions occurring at the AskHere and Reception desks, writing center, and instruction and reference sessions. Harvesting statistics about literature searches, interlibrary loan, website usage, and gate count numbers further round out this picture. Qualitative data is being gleaned from interview vignettes with students and faculty, as well as the Arts and Information Gallery's guest book. Ultimately, insights from this ongoing assessment will be compiled into an annual report.

On one Friday late this spring, the Schusterman Library closed its doors and embarked on a day-long retreat at a local resort. Complete with gourmet dining and free time to enjoy the facility's amenities, this retreat provided a rare opportunity for all library employees—faculty, staff, and graduate assistants—to come together and discuss where the library has been, and more importantly, where it is going. Guided by a human resources coach, the day started with reminiscing on the library's modest beginnings and concluded with break-out groups discussing the effectiveness of current services and brainstorming future services. This day offered a chance to assess, as a team and as individuals, the effectiveness of the library. We hope now to make it an annual event, one that encourages the library to continuously look for ways to improve, and to continue to share all of our own individual points of view.

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Copyright and Intellectual Property: Teaching Creatively

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Abstract

It is critical for college students to know about intellectual property and copyright and the proper use of images, text, audio and graphics in the digital world, but most undergraduate students have little understanding of what copyright involves and why we want them to learn about it. When invited to present a session to all business and IT freshmen our challenge was to create a presentation that would increase their knowledge of copyright in an engaging, interactive package. We will share our experience working with teaching faculty to plan and implement a program focused on teaching IT undergraduates about digital responsibilities and rights using library 2.0 instruction tools, including Clicker, Prezi, LibGuide, SlideShare, and BlackBoard. The success of the effectiveness of this session has been reflected in student evaluations and their final projects. Teaching plans, session outlines and links to online class materials will be shared. Future plans for expanding this instruction to other majors; reinforcing the concepts introduced in this session through out the major and creating online modules or games as supplementary self-instruction materials will be discussed.

Setting the Stage

Marymount University is a private, Catholic, co-educational University located in Arlington, Virginia, a close-in suburb of Washington, D.C. It has a total enrollment of about 3600 students which includes over 2300 undergraduates and just over 1200 graduate students. Four hundred students are typically enrolled in some type of Business Administration program and another 100 students are in Information Technology. There were a number of factors that came together to support the creation and presentation of this program of copyright instruction to students.

The Library has a mandate to provide copyright education on campus and is involved in a variety of copyright education programs across the campus. Because of the provisions of the Digital Millennium Copyright Act of 1998, Marymount University reviewed and updated its policies and procedures related to copyright and the way it handled complaints of copyright infringement (“Digital”). The Library also established a program to educate its community about copyright law and promote compliance with the provisions of the new law. As in many colleges and universities of the same size, Marymount assigned copyright education on campus to the Dean of the Library and Learning Services. The Library staff, especially members of the Library’s Copyright Team, is actively engaged in promoting copyright awareness and education across campus.

Initially, the Library focused on promoting copyright awareness on campus rather than providing any education or training. We made sure the information relating to campus policies and procedures were on the University’s website and in various official publications for students. The Library created, and continues to maintain, information about copyright on the Marymount University website. The “Copyright” page includes the text of the University Copyright Policy; links to Copyright Law; information links to the Library of Congress’ Copyright Office and links to a variety of tutorials from other universities. The Library also provides information on copyright for the “Student Handbook” (25) which is produced and distributed to both undergraduate and graduate students by the University Student Affairs Office. The information in the “Student Handbook” focuses on explaining to students the intellectual property rights they have for the works they create while they are students; providing general information on copyright at Marymount; and describing restrictions on downloading and file sharing of various digital media (25).

Strengthening the Library's role in providing copyright education to students was a major revision of the University's Liberal Arts Core that took place in 2009. It established information literacy as one of the fundamental competencies, required of all undergraduate students ("University"). Based on the Association of College and Research Library's Information Literacy Competency Standards, the revised Core states that all Marymount students will demonstrate that they can:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

Recently, an Academic Integrity Task Force of the University, which included a member from the Library, created an online, interactive Academic Integrity Tutorial that all Undergraduates must complete as a part of a required course. The tutorial focuses on plagiarism and proper attribution and citation of ideas and information used in papers and projects.

At Marymount, the instruction on the economic, legal and social issues related to the use of information mentioned in the Core has historically focused on issues of attribution, plagiarism and correct citing and more recently on illegal downloading as reflected in the copyright education material in the "Student Handbook" and Academic Integrity Tutorial mentioned above. Very little information has been given to students about the proper use of images, text, audio and graphics in the digital world.

The Library is also involved in educating the faculty about copyright. As part of its liaison program, Librarians create LibGuides for faculty for each academic department ("Faculty"). Each Guide has a page that includes guidelines on fair use of all types of copyrighted material in the classroom and another on using videos in face-to face and online instruction. In addition, the Library has held a number of Faculty Workshops focusing on various issues that surround copyright and fair use in the classroom.

Being non-teaching faculty presents the librarians at Marymount with a wide range of opportunities to communicate with teaching faculty and build partnerships that often develop into instructional opportunities. This program grew out of one of those opportunities. While there was some basic copyright education already taking place on campus, the invitation for the Library to work closely with the Information Technology faculty came in the Spring of 2010 after the chair of Department of Information Technology attended one of our faculty workshops on copyright and using multimedia in the classroom legally. That presentation included a discussion of the importance of teaching the students to develop safe, legal practices regarding use of images and a variety of media they can carry into the work place. The department chair broached the possibility of collaborating and providing instruction for IT and Business majors during the Question and Answer section of the presentation.

Selecting Learning Objectives and Instruction Methods

Decisions regarding the content and delivery of library instruction session were largely shaped by various discussions with the teaching faculty and by the various guidelines and statements from the American Library Association's Association for College and Research Library ("ACRL"). The initial interactions and conversations with faculty illustrate how following the ACRL's principle that an effective instruction program "continuously seeks out opportunities to collaborate with academic programs already in place or under development in order to foster positive relationships across campus" can result in effective instructional collaborations ("Characteristics").

The interactive model of instruction we selected is supported by several guidelines established by the ACRL Instruction Section's recently revised "Guidelines for Instruction Programs in Academic Libraries". In the section on *Identification of Modes of Instruction*, it recommends that:

Instruction occurs in different modes and by using a variety of methods. The modes that are selected should be consistent with the goals of information literacy instruction. Learning styles should be considered and multiple modes should be incorporated, whenever possible. Instruction should employ active learning strategies and techniques that require learners to develop critical thinking skills in concert with information literacy skills. Planning such active learning strategies and techniques should be carried out collaboratively with faculty to increase overall student engagement and to extend opportunities for a more reflective approach to information retrieval, evaluation, and use.

The section on *Pedagogy* in the ACRL “Characteristics” also supports many of the choices we made. It advises that pedagogy for an information literacy program:

- Takes into account diverse teaching and learning styles.
- Incorporates and uses relevant and appropriate information technology and other [media resources](#) to support pedagogy.
- Contextualizes information literacy within ongoing coursework appropriate to the academic program and course level.

Because we were working with images and multi-media projects we also reviewed the “ACRL Visual Literacy Competency Standards for Higher Education”. It also establishes as a performance indicator that a visually literate student “understands many of the ethical, legal, social, and economic issues surrounding the creation and use of images and visual media, and accesses and uses visual materials ethically” and also “follows ethical and legal best practices when accessing, using, and creating images” (“ACRL”). The “ACRL Visual Literacy Competency Standards for Higher Education” continues with a well-defined set of learning objectives in support of these indicators that can be taught and used to assess the students:

- develops familiarity with concepts and issues of intellectual property, copyright, and fair use as they apply to image content
- Tracks copyright and use restrictions when images are reproduced, altered, converted to different formats, or disseminated to new contexts
- States rights and attribution information when disseminating personally created images”.
- Cites images and visual media in papers, presentations, and projects.
- Gives attribution to image creators in citations and credit statements to acknowledge authorship and author rights
- Includes source information in citations and credit statements so visual materials can be reliably found and accessed by other scholars and researchers
- Cites visual materials using an appropriate documentation style

Developing the Session

The Librarian Liaison to the IT Department followed up on this initial interest and met with the chair of the IT program to explain what the Library could offer to the teaching faculty and the types of library instruction that could help students in their research and study. The chair, a former librarian, was fully aware of the importance of the library instruction and the value of library resources. Therefore, the chair recommended to her colleagues that they add library instruction to the syllabi of a beginning level IT class that is required of all Information Technology and Business majors and IT 110, Information Technology in the Global Age. The sessions would introduce the students to basic resources, strategies and evaluation techniques for finding information as well as including one session that focuses on copyright and intellectual property. The specific project that the Library focuses the copyright instruction on requires learners to create some type of multi-media presentation on a country other than the United States.

Library Instruction began in the spring semester of 2011. The copyright session has been team-taught by one of Librarians on the Copyright Team and the librarian who is the liaison to IT program. All other

Library Instruction in the course is delivered by the IT liaison librarian. The team-teaching model evolved naturally because we shared an office and had complementary skill sets and experience. The IT liaison has a Masters in Computer Science and experience with technology, all types of social media, and library 2.0 instructional tools. While he had experience teaching IT and computer science classes, he had little experience teaching one-shot library instruction classes in an academic library. The librarian from the Copyright Team has years of teaching one-shot sessions and is quite knowledgeable about copyright, though she had little experience using social media and 2.0 tools for instruction. We brought the best of both worlds to this project. We worked together to develop learning objectives and create the class and the various components of instruction. We evaluate, assess, and revise it each semester based on feedback from students, faculty feedback, and our own evaluation of the experience. Most sessions are team-taught by us with each of us being responsible for pre-determined content, though occasionally scheduling conflicts and/or other obligations necessitate that only one of us teaches a session.

Approximately 4 sections of IT 110 are taught each semester, with approximately half of the sections being taught by adjuncts. Total enrollment is @100 students and one section is taught in the summer, for a total of 9 sessions a year which reach over 225 students.

Session Outline

The current learning objectives for IT 110, which were refined and focused over the past three semesters, are:

Students will

- know the difference between attribution and copyright
- be aware of the basics of copyright law
- be able to name some of the four factors that govern fair use
- know some avenues for finding “legal” images/music

We are lucky because almost all of our sessions are 75 minutes long and 95% of them take place in a computer lab. This allows us to plan for a variety of learning experiences and to adjust our instruction to accommodate a variety of learning styles. We use a range of teaching modalities including lecture; clickers; LibGuide; videos; Prezi; and a final hands-on learning exercise.

Our presentations are always interactive and we attempt to lecture as little as possible. In general, sessions always include an ice breaker activity and an end of class review quiz which both use clickers (Flatness, *IT 110: Ice Breaker*), a review of intellectual property and copyright basics using Prezi (Yang), introductions to exceptions and fair use, demonstrations and discussions of examples of questionable practices from YouTube and websites, a review of a LibGuide we created which includes material presented in class as well as links to various “Legal” sites (Flatness and Wang, “IT 110: Copyright”), and a final posting of a “legal” image to the class BlackBoard site. We review and revise our presentation every semester, updating the images/videos we show and including examples from breaking news stories. For example, last semester we used examples from Pinterest. We end with a session evaluation that allows students to give us immediate feedback and suggestions for improvement.

Outcomes and Experience

Reception to our presentations from students has been generally very good. In the end of session evaluations, 99% of the students say the information we presented was very useful or useful for completing their assignment and 95% rate the sessions as excellent to very good as a learning experience.

We assume that the professors are satisfied with both our presentation and that they receive positive student feedback in their own course evaluations. They keep asking us back and offer very few ideas for changes they think we should make.

Future plans

We have several goals for our copyright instruction. We want to work with the department chair and individual faculty members to ensure that the shared syllabi for all sections of IT 110 have a learning objective that includes copyright knowledge. We would also like to see the rubric for grading the project we focus on include assessing the student's ability to demonstrate their understanding of the legal use of images and multi-media material.

We would like to expand the instruction to other majors/programs at the University, especially programs whose curriculum includes an emphasis on teaching students to create multi-media projects that will be used in professional settings. At Marymount that includes such programs as Graphic Design, Communication, Nursing and Education. More students need to be made aware that practices that are protected as fair use in a formal classroom setting, do not usually have the same protections out in the "real world."

We want to continue to work with IT majors and certain business majors, such as marketing, in upper division courses so they will develop a richer, more sophisticated understanding of copyright and intellectual property use and protection in their future professional environments. We hope to work with instructors teaching upper division, writing-intensive courses to reinforce information introduced in these initial sessions. And further in the future we would like to incorporate this content into appropriate graduate and certificate programs as well.

As we expand the presentation of this information, we know we will need to develop learning objects and technology-based modes for delivery of our content including online tutorials or games as supplementary self-instruction materials and the use of Skype or GoToMeeting for the University's expanding distance programs.

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