Technology On Demand: Implementing Loanable Technology Services

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Technology on Demand: Implementing Loanable Technology Services

Introduction

In their 2004 article, *Born with the Chip*, Abram and Luther wrote that incoming college students “will profoundly impact both library service and culture.” They remarked that the new generation of college students entering academia have experiences and expectations that differ significantly from prior populations. These students require a range of digital tools that are configurable to immediate needs and hold the most relevance to the digital world they inhabit. They are often required to present projects that include material in a format other than a word document. Likewise, faculty increasingly expect multimodal projects that incorporate students’ research.

Yet it is rarely feasible for each campus department to acquire all of the technology needed to support those efforts or to require that each student purchase the equipment. Libraries are uniquely situated to meet this expanded need for tools to aid content creation in addition to content retrieval and consumption through programs which purchase and loan out digital-use devices and other technology. Developing in-house loanable technology has significant impacts on a variety of library public and technical services, including a library’s space use and allocation, cataloging and processing, and staff training. This article provides an overview of the loanable technology program at one academic library, including results from two sets of assessments that show the challenges, successes, and recommendations, especially focusing on the selection, processing, cataloging, circulation, maintenance, and promotion of the equipment.

The loanable technology program described in this study began as an outgrowth of a 2005 formal review exploring the creation of a “learning commons” space in the library, and supplemented by funding provided by the Division of Intercollegiate Athletics (DIA) to create a
more robust undergraduate student space. The planning process included surveys, focus groups, informal interviews and campus conversations with stakeholders to gather information on student needs (in particular technology needs) not being met with current resources. Analysis of the data led to the implementation of several new services and changes to existing services (as detailed below), including a restructuring of collections, spaces, and services in the Undergraduate Library, and the establishment of a loanable technology program.

Laptops and digital cameras formed the core of the initial loanable technology collection, which grew over time in response to assessment, student assignments, curricular changes, student requests, and other technology initiatives at the library, as detailed below. Today, the loanable technology collection includes a variety of items from laptops, to cameras, to USB drives, to digital audio and video recorders, to graphing/scientific calculators, to portable gaming devices like the Nintendo DS and Sony PSP.

Review of the literature

Although an increasing number of libraries provide laptop checkout and other loanable equipment, there is not a lot in the literature documenting the processes, experiences or assessments of these programs. Some articles provide a justification for loaning equipment, such as King (2010), who explains how community colleges can reinvent themselves in order to provide needed services and resources. She discusses the need for libraries to not only increase the availability of all types of digital content to student devices, but also to redirect funds in order to purchase digital devices to loan out to students, an important step especially for increasing equity among students who cannot afford the devices.
Much of the literature related to loanable technology addresses the experiences of loaning laptops at libraries, including the planning, policies, and considerations (Vaugn & Burnes, 2002; Allmang, 2003; Drew, 2003; Kwon and Soules, 2003; Williams, 2003; Dodd, 2007; Power 2007). Sharpe (2009) details the challenges of loaning laptops at the University of Houston’s Anderson Library. In addition to providing the process for preparing laptops for checkout, Sharpe shares adjustments to the checkout policy due to the workflow difficulties that were encountered at the desk, strategies for meeting the challenge of keeping up with charging batteries, and deterioration of the machines.

Although there are some articles that discuss methods used to assess considerations before implementing a program (Changchit et al, 2006; Elwood et al, 2006) only a few articles provide the assessment of their program and changes made as a result (Holden & Deng, 2005; Atlas et al, 2007; Feldman et al, 2008; Hsieh & Holden, 2008). Many other articles provide circulation and usage statistics that justify the popularity of the program. Feldman et al (2008) were able to find survey results on a few library websites regarding that library’s loanable laptop program. After their own literature review, they made the conclusion that users were pleased with laptop programs, yet their institution had received numerous complaints due to lost data, slowness and connections. They conducted a user satisfaction survey to learn of reasons for checking out a laptop, wait time for a laptop, time of day they used the laptop, how often they check out a laptop, problems they experienced, malfunctioning laptops, satisfaction with service and options for additional comments. As a result of the survey they were able to identify use patterns and key areas that needed to be improved. They provide each of the areas and solutions, such as adding in more wireless access nodes, contracting with a repair service, adding more laptops, and imaging solutions.
Hsieh & Holden (2008) conducted two web-based surveys to evaluate the needs and expectations that students had for the laptop lending service. They detail the history of their program and the reasons to assess the program. They also describe the difficulty in finding published literature related to the assessment of a laptop lending program. The surveys conducted by Hsieh & Holden occurred in 2005 and 2007, with the later survey having some refinement of questions with more context sensitive questions. Although the survey provided information related to why students use laptops and satisfaction levels, one of the important findings was that students did not use the laptops because they were not aware of them, which prompted the library to improve their marketing of the laptops.

When searching for published articles that also provide information about loanable technology in addition to laptops, there are even fewer. Munson & Malia (2007) include some of the loanable equipment and packaging for it in their article, but the main focus of the article concerns details and changes their laptop lending program underwent, including number of laptops, loan period changes, space considerations, and difficulties with software and hardware for the laptops. They also detail their funding, security changes, procedures when an item is damaged, and their fine structure.

The inclusion of loanable technology in an academic library should also reflect the institution’s curriculum and support its courses. A search of the literature for information from that perspective is also limited. Numerous authors (Covington, 2004; Manness, 2004; Martinson, 2004; Jenkins et al, 2006) discuss the need for instruction that addresses the role of media literacy as students both use and produce materials in multimodal formats.
Methodology

A variety of observations, surveys, conversations with faculty and students, focus group interviews and investigation of technology needed for class work were made to determine the technology that would be appropriate to make available to students. The materials themselves were purchased in stages to first meet the most important student academic needs expressed in the assessment results.

Focus groups

In 2005 eight focus groups were conducted with students to get their feedback on what they wanted to see happen in the library (and a possible “learning commons” space) and to learn what tools they needed in order to accomplish their class projects. Groups who were contacted to be part of this were students from: Liberal Arts and Sciences Colleges, the Career Center Student Advisory Group, Housing/residence halls, students who were in the Undergraduate Library, the Student Union, CITES (Campus Information Technologies and Educational Services) Student Instructional Technology Advisory Board (SITAB), and the ULSAC (University Librarian Student Advisory Committee).

Four of the focus groups occurred in the library and four occurred outside of the library, at common areas of some of the residence halls. The goal was to hear from students who currently used the library and those who did not in order to get the widest perspectives and feedback about what services they would like to see in the space, as well as their ideas for design. Snacks were provided for those who participated at the Undergraduate library and pizza and soda were provided for meetings outside the library. The break down for the groups was as follows:

- Liberal Arts and Sciences, 9 students
• the Career Center Student Advisory Group, 6 students
• two groups from Housing, 6 students, 9 students
• students in the library, 7 students
• students in the Student Union, 6 students
• CITES SITAB 9 students
• ULSAC

Two individuals were present to oversee the focus groups: a librarian who took notes and displayed them on a large screen so the group could see what was said and an individual not affiliated with the library who conducted the focus group. Although subsequent questions were discussed, two initial questions related to technology included:

• What services would you want to be provided in a learning commons space in the library?
• What technologies would you want to be provided in a learning commons space in the library?

These were expanded on as the sessions progressed to get into more specifics in what students needed in the form of technologies, how they envisioned using them, and the support they would expect for their use at the library.

Web page survey

To get broader input from faculty and students around the campus, an anonymous web survey was developed and disseminated through the campus weekly announcement list. As an incentive for answering the survey, five individuals were randomly chosen to receive $20.00 gift certificates. In order to be entered in the drawing they had to provide an e-mail address.
The survey consisted of sixteen questions. A total of 624 surveys were completed and returned. Of the sixteen questions the following specifically pertained to technology:

- What additional services would you use if they were included in the library’s “Learning Commons”?
- What software do you need for your studies (or request students use)? (Check as many as apply)
- Do you ever ask for software assistance from the consultants in the CITES Labs?
- Do you work in a group for your studies (or require that students work on group projects)?
- Do you bring your own laptop to the library for your work?

Informal interviews with faculty members

As part of the learning commons development process, faculty members from throughout the campus were consulted to learn ways the library could support students in their coursework. These conversations occurred through group meetings and through individual conversations. The main themes discussed were technology needed, partnerships that could be developed with a presence in the learning commons, types of spaces needed and the development of a robust online presence that pulls together all the technology and library services from throughout the campus.
Findings

Focus groups

Results from the eight focus groups were fairly consistent regarding technology that students wanted to either have within the permanent configuration of the library or that could be loaned out. Highly desired items included the following categories:

Group study rooms. Students detailed the characteristics desired for these rooms, including a marker board, smart board, some sort of computer projection and a table that would seat at least four people. Although they advocated for a permanent computer in those spaces, they felt that if there were adequate wireless and electrical outlets, as well as a way to have the laptop project on a screen that would be ok. Purposes for these rooms included for group study, TA office hour use, and student presentation practice space. Along with this discussion, students commented on the need for large screen computers for group work.

Laptops to check out. Students were even willing to put down a deposit in exchange for checking out a laptop for building use. More wireless capability and electrical outlets were also high on the list of upgrades that needed to occur in order to accommodate all the new technology.

Media editing equipment. Although students didn’t necessarily indicate that they wanted Macs because of the specialized software available, they did mention the various productivity and media editing software (mostly only available on Macs at the time) that they needed in order to produce and edit video, incorporate sound elements, and to create dynamic presentations.
Digital cameras and scanners to check out. Although the library had some scanners, they were attached to computers and students were reluctant to ask someone at one of those stations if they were almost finished so that they could use the scanner. Along with cameras and scanners to check out, students wanted to make sure that the library provided software on the library computers, and necessary cables that would allow them to work with these tools.

Mp3 players, digital recorders, and IPods. For most, the desire for the library to loan these items was not for the purpose of listening to music. Rather, students mentioned that these would be useful for them to download lectures that were on e-reserves or available from faculty course sites, as well as CDs that accompany textbooks. Additionally, students mentioned how they use them as digital recorders (e.g. for journalism classes). They also mentioned how these devices were useful for downloading clips (sound clips, speeches, open source music, etc.) that they could then add to presentations.

Web survey
Demographics. The breakdown of participants is provided in Table 1 below. Of the respondents 72% were undergraduates. Although the learning commons is heavily used by undergraduate students, the web survey sought responses from faculty and graduate students as well in order to learn of their aspirations for the space, services and technologies. Question 2 asked students to identify their majors. There were 518 responses, with nearly 200 majors named, with a preponderance in the arts and humanities.
Table 1: Question 1- Please identify your academic status

<table>
<thead>
<tr>
<th>Year in School</th>
<th>Number</th>
<th>% of total (n=624)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First year student</td>
<td>250</td>
<td>40%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>58</td>
<td>9%</td>
</tr>
<tr>
<td>Junior</td>
<td>70</td>
<td>11%</td>
</tr>
<tr>
<td>Senior</td>
<td>73</td>
<td>12%</td>
</tr>
<tr>
<td>Graduate student</td>
<td>127</td>
<td>20%</td>
</tr>
<tr>
<td>Faculty</td>
<td>16</td>
<td>3%</td>
</tr>
<tr>
<td>Staff</td>
<td>24</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>1%</td>
</tr>
</tbody>
</table>

Responses from questions pertaining to technology. Several of the questions on the survey provided options that could be selected, as well as write in options. Although the main purpose of the survey was not just technology related, there were options provided in some of the questions that had direct connections to the type of technology, as well as infrastructure and space the library would need to consider. Question 3 asked what the three main reasons were for choosing a particular library (of which there are over 30) on campus. Of the options provided, six percent of the responses indicated that respondents chose a library for the technology that was available, although eight percent of the responses were because of the wireless or electrical available for laptops. Responses to Question 4 regarding the services they used in the past year
at a library included email/internet 31%; printing 21%; scanning 5%; and software or computer access 11%.

Question 5 asked respondents to choose the additional services that they would like in the library “learning commons”. Most of the options provided directly related to technology. At the time of the survey the committees had not thought about the various types of loanable technology, other than laptops.

Table 2: Question 5 - What additional service would you use?

<table>
<thead>
<tr>
<th>What additional services would you use if they were included in the Undergrad Library &quot;learning commons&quot;? (Choose all you would use.)</th>
<th>Everyone</th>
<th>Undergrads</th>
<th>Grads</th>
<th>Faculty</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional space/resources for collaborative/group projects</td>
<td>276</td>
<td>13%</td>
<td>223</td>
<td>13%</td>
<td>46</td>
</tr>
<tr>
<td>ATLAS support</td>
<td>49</td>
<td>2%</td>
<td>34</td>
<td>2%</td>
<td>8</td>
</tr>
<tr>
<td>CITES account service and Help Desk presence</td>
<td>259</td>
<td>12%</td>
<td>185</td>
<td>11%</td>
<td>56</td>
</tr>
<tr>
<td>Educational Technologies presence; Compass support &amp;/or training</td>
<td>116</td>
<td>5%</td>
<td>75</td>
<td>4%</td>
<td>30</td>
</tr>
<tr>
<td>Laptops to check out</td>
<td>227</td>
<td>10%</td>
<td>162</td>
<td>10%</td>
<td>51</td>
</tr>
<tr>
<td>Media download to iPods</td>
<td>269</td>
<td>12%</td>
<td>221</td>
<td>13%</td>
<td>36</td>
</tr>
<tr>
<td>Multimedia production equipment and support</td>
<td>158</td>
<td>7%</td>
<td>99</td>
<td>6%</td>
<td>43</td>
</tr>
<tr>
<td>Pre-major advising</td>
<td>179</td>
<td>8%</td>
<td>169</td>
<td>10%</td>
<td>7</td>
</tr>
<tr>
<td>Projection rooms (spaces with equipment)</td>
<td>162</td>
<td>7%</td>
<td>110</td>
<td>7%</td>
<td>40</td>
</tr>
<tr>
<td>TA/faculty office hours (space)</td>
<td>255</td>
<td>12%</td>
<td>203</td>
<td>12%</td>
<td>47</td>
</tr>
<tr>
<td>Tutoring services</td>
<td>225</td>
<td>10%</td>
<td>196</td>
<td>12%</td>
<td>27</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>1%</td>
<td>6</td>
<td>0%</td>
<td>4</td>
</tr>
<tr>
<td>Total responses</td>
<td>2188</td>
<td>1683</td>
<td>395</td>
<td>43</td>
<td>67</td>
</tr>
</tbody>
</table>

Some of the write-in responses that were submitted for this question focused on the need for laptops, software, and tools to help with their course projects. “I like the idea of being able to
checkout laptops, but I would like to know what kind of software will be available in those laptops since different students of different majors use certain programs and laptops for their studies. Would the laptops be categorized for different majors, depending on the kind of programs each laptop contains or every laptop will have the same programs in them”; “I see a lot of 'microsoft' in the software you ask about, and not much alternative.”; “I think there should be more computers available because they are usually full and many people wait in line for them in between”; “Any technology and services that can help a student complete their assignments.”; “I don't want to have to go far for anything I might need or have forgotten at home”; “access to technology because of the evolving nature of classes in response to available electronic means (powerpoint, electronic reserves, etc.);“multimedia check-out (i.e. LCD projectors, tape recorders, microphones, and video cameras for class projects)”; “A copy/scanning place that is accessible and more contemporary”; “A room where students can make videos--video camera, simple editing equipment”.

Informal interviews with faculty

Conversations with faculty throughout the eight month planning process revealed that faculty either suggested or required that students use multimodal technology for their class projects. Although initial conversations indicated some interest in the use of technology in courses, there were changes over a several year period that had the most significant impact on the library’s loanable technology collection. A growing number of courses are affiliated with the Ethnography of the University Initiative which seeks to “infuse research into the undergraduate curriculum” (University of Illinois) and has elicited a number of web-based and interactive media projects. In 2005 a new course, Writing with Video, was first offered. This course serves as an option to fulfill the Advanced Composition requirement and was the first on campus to
utilize video as the medium for student writing. The course creators met with library faculty in 2007 to brainstorm ways the library could work to support students in these classes. These conversations served as a major impetus for the Macs and accompanying software that were added to the collection. The use of video as the medium for student writing was expanded in 2008 to include freshmen Rhetoric classes that provided students with the option of creating a multimodal project in lieu of one of their written papers. In addition there are numerous Art and Design courses where students need to produce and manipulate computer images, designs, and photography.

In addition, several departments on campus provided examples of their technology programs and options for loaning technology, such as the College of Education’s Education Instructional Technology Center, the School of Art and Design, and ATLAS (Applied Technologies for Learning in the Arts and Sciences).

**Loanable technology purchased**

Based on this input, items were prioritized and recommended for purchase, although some were deferred for a couple of years due to budget issues. Some of the tools were made available for checkout and some of the technology was located in a permanent set up in the library or through software installed on library iMacs. Items were purchased and processed in the following priority order:

- Laptops
- Digital Cameras
- Graphic and Scientific Calculators
- Digital Recorders
• Hand held devices such as Mp3 players
• Macs for media production
• GPS units
• Microphones
• Scanners
• Hard drives
• Portable projector
• Projector equipped room

Gaming collection

The loanable technology collection was supplemented in 2006 with initial purchases from the separate library Gaming Initiative, with a steady growth in purchases beginning in 2009. The video game collection includes accessories (such as guitars for Guitar hero) and consoles (such as the Nintendo DS) and has similar needs for the types of circulation and cataloging procedures developed for loanable technology. Processing these materials in a similar manner made for fewer procedures for students and staff to have to learn, and expedited making gaming materials ready for circulation.

Recent assessment

In 2009 assessment of the loanable technology program began, which includes tracking circulation statistics, ongoing discussions with faculty to ascertain if there are additional tools that students need for their class projects, and questions asked of each student on the form they use to check out the equipment.
Statistics for loanable technology

Table 3 shows circulations by technology type. Results of circulation reports indicate that laptops and storage media, such as USB flash drives and external hard-drives, are the most heavily circulated items. Digital video cameras showed steady increase from 28 circulations in the Fall 2010 semester to 103 circulations in the Spring 2010 semester. Further, loanable gaming resources showed sustained popularity for both Fall and Spring semesters. Calculators are also a popular technology loan item, appearing in the top five most circulated technology types in both the Fall and Spring semesters. The miscellaneous technology type, listed below, includes dry erase board accessories, USB microphone, tripod, cassette players, and a variety of cables.

Table 3 – Circulation of Loanable Technology Fall 2009 and Spring 2010 semesters

<table>
<thead>
<tr>
<th>Technology Type</th>
<th>Sum Charges Fall 2009</th>
<th>Sum Charges Spring 2010</th>
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</thead>
<tbody>
<tr>
<td>Laptop and Accessories</td>
<td>7904</td>
<td>9029</td>
</tr>
<tr>
<td>Storage</td>
<td>225</td>
<td>340</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>239</td>
<td>179</td>
</tr>
<tr>
<td>Game Console and Gaming Accessories</td>
<td>226</td>
<td>217</td>
</tr>
<tr>
<td>Calculator</td>
<td>84</td>
<td>139</td>
</tr>
<tr>
<td>Digital Video Camera</td>
<td>28</td>
<td>103</td>
</tr>
<tr>
<td>MP3 Player</td>
<td>42</td>
<td>35</td>
</tr>
<tr>
<td>Voice Recorder</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Digital Camera</td>
<td>5</td>
<td>38</td>
</tr>
<tr>
<td>Portable DVD player</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>GPS Device</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>
Questions asked on the loanable technology check-out form

In order to get a better understanding of how the technology is used to support classwork the following questions are asked of students as they fill out the loanable technology form they are asked:

1. Is this for a class?
2. Which class?
3. What other technology should the library have?

These questions have only recently been added to the technology loan form. After one month, collected data about class use (Questions 1 and 2) indicate that voice recorders and digital video cameras are borrowed for class use more than any other technology type. About 50% of the time that these item types are checked out, students report specifically using them for a class.

The majority of classes that require digital video cameras include: education courses, rhetoric, and a number of students in a general studies course – GS101. The general studies course is designed to help first-year students choose a major. The heavy course use by GS101 of loanable technology demonstrates the support that a Library provides to students in the campus general curricula.

Responses on the forms indicate that voice recorders are used over 50% of the time for a course. Courses that students are enrolled in that require voice recorders include: linguistics, language classes, and business courses. Other items in the loanable technology pool are being used in courses such as statistics, math, and economics.
Not all of the loanable technology that is checked out is utilized specifically for courses. The aggregate numbers indicate that about half of the time the loanable technology is not being checked out specifically for a course. This shows that the library is also providing students with access to technology that they can make use of outside of the traditional curricula. The impact of such use is in need of further inquiry.

Responses to Question 3 indicate that the highest demand for additional items that the library should purchase is for specific types of calculators. It is valuable to note that the suggestions for additional calculators were made by borrowers who checked out a calculator that was available, potentially indicating that students may use the calculator type that is available, but may actually prefer another model entirely. In many of these instances students will include the exact model number of a graphing calculator.

Responses on the forms are compiled and added to various word documents for later use for justification for the types of technology needed to support classes. If a particular course seems to be heavily utilizing specific technology, this affords librarians the opportunity to contact the appropriate faculty, inquire about the assignment and begin a dialogue to discover if there are additional ways the library can help support the students and the course.

Again, it should be noted that these are initial trends collected over one month in the Fall 2010 semester (54 responses) and more data collected over the next year will give librarians and administrators a more generalized and well-rounded picture of course needs.

Cataloging and processing of loanable technology

A special cataloging template was developed in collaboration with staff and librarians from other units for adding loanable technology to the collection. Since shelf location is not a manner
is which technology items are found, there was not a need to assign call numbers. All items were
made searchable in the catalog with a special item type, to facilitate marketing the collection, and
to allow patrons to determine which items are currently available.

Loanable technology frequently contains multiple items. These may include USB cables
to connect devices to computers, installation discs, operating manuals, and batteries. When
cataloged, the number of items included in the technology set are noted. The integrated library
system used at the University of Illinois provides an option to specify the number of items that
comprise a unit. The number of items are added on the checkout form. All items of the loanable
technology are photographed and this photograph is included in the checkout bag which allows
for easy identification of items during checkout and check-in by both staff and patrons.

Most items require specialized packaging. For smaller items like the iPod Nano or the
handheld GPS devices, processing includes the use of a clear plastic enveloping pouch. For
larger items like the higher end digital Cameras or the portable DVD players, a larger bag is
used. Usually these bags are black attaché type. Attached to each bag is a barcode of the item,
which represents all of the contents in the bag. Libraries that wish to start a loanable technology
programs will also want to consider the accompanying costs of technologies beyond the
purchase, such as: the protective cases, ordering extra batteries, and flash media storage, to name
a few “hidden costs.”

Web page documentation

A technology web page
(http://www.library.illinois.edu/ugl/about/LoanableTechnology/technology.html) was created to
pull together all of the technology items in the library to provide users an easy place to learn
about what is available. After a piece of loanable equipment is cataloged, processed and
available for checkout, the technology web page is updated to reflect additions. The web page
also includes live links to the library catalog so that patrons can check on the availability of an
item.

Training needs

A combination of about 30 full and part time staff provide circulation services for this collection,
including individuals with a variety of facility with technology. A two-phase training program
was developed to meet these varying needs. The first part of training develops an initial
familiarity with loanable technology. Within service provision, staff learn the components of
various technology, including what certain items look like. This initial orientation, also delves
into the functionality of each item, including charging batteries, refreshing hard drives, taking
pictures with cameras, troubleshooting wireless connections, etc.

Cross training is an important aspect of the process. Staff who had previously only held
circulation duties at the desk began taking on responsibilities for technology processing. Some of
these staff members also incorporated basic level cataloging of technology into their duties and
responsibilities. In part, this was supported by cross training of staff from the cataloging
departments, who also helped develop the technology loan template.

Ongoing training reviews procedures, use of items, and is an opportunity for staff to
discuss best practices and to suggest changes in policy or procedure based on their experiences
working with the collection.

Circulation policies and procedures
Laptops and other items which were designated as building-use only leveraged the existing circulation policies and procedures for class reserves. This allowed for expedited circulation of high use items like laptops. A separate circulation procedure was designed for loanable technology items which physically leave the building, and for in building use items which had multiple parts or components which needed to be tracked.

The circulation process for loanable technology takes longer than the regular book checkout process. A separate work station was dedicated to technology loans in 2009, based on experiences indicating that the high traffic at the regular circulation desk led to student assistants frequently skipping steps in the charge/discharge procedure for loanable technology items (such as verifying the number of pieces that came with an item). Additionally, the separate desk provided an opportunity to clarify with patrons what the policies, expectations, and value of each item was, in order to improve patron handling and care for the collection. Feedback from patrons who were billed for lost or incompletely returned items indicated that patrons, particularly undergraduate students, were not aware of the replacement costs for items, or of their obligation to accurately track all the pieces that came with each piece of loanable technology.

At the technology desk there are forms for each item that all library patrons must complete for technology which is allowed to leave the building. The technology loan form is an agreement that the library patron completes stating that they are responsible for bring this technology back to the library in the same condition it was checked out, including all the parts. Fine and replacement cost information is also included on the form. The library and patron each get a copy of this form, which is then consulted when the item is returned. The patron agreements are only kept on file until after the equipment has been returned in proper condition. Feedback (such as suggestions) that may have been recorded on the form is then compiled.
Examples of feedback could be related to condition of the item and if adjustments or repairs were needed.

Reserved Loanable Technology

A process for reserving media items in advance was implemented in the Fall semester of 2010. This was in response to patron request. Technology reservations follow the same procedure for other reservations. The library uses a “short-loan” process for reserving items for faculty and graduate students to show videos in class. This is the same process that is now used to reserve technology. Much in the same way that technology items need to be marketed to incoming and returning students – this new feature (one of reservations) will need to be marketed to students. Additionally – the staff of the circulation desk “pull” the short loans for technology items. The process of getting technology reservations ready is incorporated into the same process used when staff pull videos and other media for bookings in the early morning hours.

Successes and Challenges of the Program

As this program evolves there will be an ongoing assessment to discover what improvements should be made to the program. Even without that type of assessment, there are various successes and challenges that have already been identified, as described below.

Successes

Findability and equitable access. One of the useful changes made to the loanable technology program was the webpage annotations for each item and links to the catalog record. This allows patrons to learn about technology online. This is useful for staff as well, since many users ask
about services through online reference services, and by phone. The material is also in the
catalog, so that students can search for individual items specifically to see when they are
available.

Baseline for future assessments. The library has been able to build on the original assessment
techniques and incorporate them as it expands into offering more robust technology services.
Students and others have provided very specific feedback on what they need in terms of loanable
technology for their work, and this information informs both the purchase of the original
equipment, as well as what areas to investigate when measuring the actual uses the equipment is
then put to. These assessments suggest that the next phase to assess in libraries will be the
customization of technology, as well as the library as a space where students can experiment
with incorporating new technologies into their academic work without having to make costly
purchases.

Determining program boundaries. An additional benefit of creating this program is the
knowledge gained from understanding what the library can reasonably provide. Although the
original goal was to have items that students needed in order to assist them with their projects,
after several items were not returned, discussions ensued to determine limits on which items to
provide. High cost items need to be considered carefully before purchase, since, due to complex
campus financial policies, the library does not directly receive reimbursements for lost items. An
example of this is a portable projector that was made available to assist students in their
presentations, which was subsequently not returned. The library did not receive reimbursement
for this item, which has affected current decisions on whether to purchase this high cost, yet in demand, item again.

**Student engagement successes.** The program described has direct relevance to the library’s service philosophy of not only supporting the traditional research, learning and academic needs of students, but also embracing the role of students as creators of content. The technology has been used either individually or collaboratively to interface with other social media being used in multimedia projects, and has also contributed to leisure and recreational uses (such as for student organizations) that speak to other student needs and potential connections to build with the library.

**Challenges**

**Billing and replacement issues.** As noted above, the challenges in circulating loanable technology items include the structures of cost recovery in the library. If an item is lost, the student’s account is billed. When paid, this money does not find its way back to the originating library which leveled the fund and as such, replenishing loanable technology resources is a yearly budget exercise where funds are not committed in an assigned budget line. Without a replacement fee the library has to think critically about whether or not to replace the equipment, and how to sustain the program knowing that the average shelf life of most of the equipment is 3-4 years under the best conditions.

**Limitations in quantity and types of equipment.** Faculty in departments that cannot provide technology either because of cost or other roadblocks have started recommending the library’s loanable technology collection to their students. With increasing reliance on technology in many
courses, librarians will need to expand their consultations with faculty in order to document the
technology use and requirements related to courses. For example, in Fall 2009 the freshmen
Rhetoric program created a custom e-book as the course text. This e-book includes many
multimedia features such as embedded videos, links to web pages from the library and
elsewhere, and the ability for students to take personal notes throughout. The use of such texts
raises questions for libraries with regard to what software they provide on their computers and
what mechanisms they provide for students to view and use these e-texts both in the library and
via loanable technology. The library is investigating what would be needed in order to loan out
iPads to support this increasing need for students to be able to download e-books and course
related texts.

With the lack of information technology resources in a decentralized campus
environment, the academic library must find a balance among delivering resources to students, as
well as other campus members. If the library hopes to sustain this program it will need to have
an ongoing budget line as well as a collection development policy and replacement policy.

Support issues. Another challenge is that library IT is not staffed to provide support of items
except for loanable laptops. Library staff have had to learn how to check each incoming item for
any needed maintenance. This requires them to participate in ongoing training and to tolerate a
degree of uncertainty, since often, new technology comes in and staff are not immediately aware
of how each item operates. Essentially, this is a challenge of staying up to date with training and
the rapid rate of growth with the library technology loan pool. Additional challenges are faced
by reference staff who may be approached by students for assistance in saving and manipulating
video and audio files they have created using the loanable technology. The wide variety of equipment available can make it difficult to provide simple solutions to their questions.

**Ensuring availability.** A common question at the technology loan desk regards renewing the equipment. Current policy is to not renew items from our technology loan pool. Students who have started using the technology resources would like to have more time with the technology they have. In an effort to protect the greatest use of the collection, the library is implementing a three-day waiting period after items are returned. This is an important step in the process as there can be large numbers of students seeking to use the same equipment for the same assignment during the same time period. The reservation program that has just begun may also help ensure greater access for those wishing to use loanable technology items.

**Marketing the program.** Currently students learn about the loanable technology program either by inquiry, word of mouth, the library website, Twitter feed, blog, large posters, displays, and through instruction and new student orientation. The next step to explore is how to effectively market this program more broadly and especially to the classes that are requiring multimodal projects while not creating expectations that cannot be met regarding the availability of the equipment.

**Conclusion**

The loanable technology program has had a mix of successes and missteps in its 5 year history, but has found significant evidence to support the need for a loanable technology program to support student’s academic needs. Since the workplaces of the future will require technology
fluency, the library, by offering opportunities for engagement with technologies that assist with developing presentation and multimodal projects, is preparing a generation of individuals who have experience with a multiplicity of high tech tools.

Future directions for the program may include the incorporation of iPads. The iPad runs Apple’s iOS mobile operating system and offers an increased level of customization. It is configurable with after-purchase software components. The library can develop mobile software applications or load third-party developer applications. For example, the iTunes App Store hosts a variety of freely available educational applications. This increased customization of loanable technology is a new and exciting opportunity for technology access in libraries. The significance of such customization may lead to a variety of library tools ranging from in-building orientation applications to campus-wide exploration. The tools that are loaned in the future will serve a diverse set of functions and create increasing learning opportunities that were previously not available to students.

The library also needs to understand the experience of the student while using library loaned technology resources. Field research (or ethnographic methods) may help the library understand the narrative of use – interviewing, observation, or focus groups may be the way forward for piecing together a narrative of use. These represent areas for further study.

The library administration understands that these are necessary tools for completing assignments, but what is the story to be told of that use? A possible and desired next step in the technology loan program would be to decide on a type of technology to study and a specific course which uses that technology. An example would be working with a program (such as the business school or linguistics program) that requires the use of voice recorders to study how they are used.
As this program develops it is uncertain what lies ahead. In the future will the library be a provider of other resources to supplement technology; a place to go for support and instruction in using those tools and the recognized Student Technology Hub? For libraries to remain relevant they must be proactive to the needs of their students and the role of technology on their campuses. As Abram and Luther (2004) implored “They are coming. We had better be ready.”

References


