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Building an Equipment Checkout System from Scratch

Bronwyn Dorhofer
University of Oregon

Molly Gunderson
Portland State University

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Introduction
This article will examine the practical methods the Portland State University (PSU) Library and University of Oregon Portland Library and Learning Commons implemented when developing equipment checkout systems to serve their patrons. Due to the inherent complexity of technology items and their unique lending rules, creating sound circulation policies which benefited patrons and worked well with the limitations of our integrated library systems (ILS) was of primary concern. In this document, we will describe our basic equipment lending workflows as well as highlight the basic factors to consider if launching a similar project.

The PSU Library’s focus will relate to lending a variety of technology equipment (laptops, iPads) available to a large student population, while UO Portland’s will relate to lending specialized kits with many components to specific patron groups.
Molly: The PSU Library began our equipment lending program five years ago with a small number of laptops. We began lending laptops as a pilot program in the summer of 2011, starting with 20 laptops and allowing them to circulate for two hours at a time. By the end of September, we had feedback from students that the two-hour checkout was not long enough and extended the loan period to three hours. We have added 30 more laptops since the pilot program began. In addition to laptops, we began adding other equipment items to our enhance our lending program and now circulate a number of different items: headphones, phone chargers, adapters, pocket projectors, Bluetooth keyboards, iPads, and scientific calculators. All of these items check out for three hours at a time, and only students can check them out. Audio/Visual (A/V) Services are handled separately by the Office of Information Technologies. We chose items that made sense to check out as a library and were common requests from students.

The amount of space needed for all the equipment was something we did not anticipate at first. To house all the equipment in the same area, we used a long wall behind the Circulation Desk that joins two sections of the department together. We now have three laptop storage carts along this wall. The storage carts are powered in order to recharge the laptops when they are not checked out. We have a smaller storage bin for our iPads. We had to add two additional power outlets to the wall in order to house all of the equipment. Smaller items such as pocket projectors, keyboards, and charging kits are kept in cubbies next to the storage carts. We found the best way to keep accessories like phone chargers and power cords organized was to place them in small mesh bags.

Bronwyn: At the University of Oregon Portland Library and Learning Commons and the supporting Allied Arts and Architecture (A&AA) Output Room (Portland, OR), we collaborated with School of Journalism Center (SOJC) faculty to develop an equipment lending program for graduate students enrolled in the newly-launched Multimedia Journalism (MMJ) program. MMJ students create original film and audio recordings using professional
Equipment widely used in the journalism trade such as multimedia camera kits, digital recording equipment and tripods. The Library’s supporting Output Room circulates this equipment to all qualifying MMJ students and acts as steward of the collection by housing, inventorying and circulating the kits to the Library’s patrons. While the Library does not directly own this collection, we are accountable for maintaining and safely securing the items.

The popularity of the MMJ program coupled with the SOJC department’s acquisition of new kits to meet patron demand has had an impact on Library staff. The complexity of the equipment kits and the limitations of the integrated library system (ILS) used at the time initially prevented the Library from offering the best levels of service possible when the lending program was launched in 2012.

Additionally, the unique loan rules of these Multimedia kits (72-hour check-out) coupled with their numerous parts created confusion at the circulation desk if a missing or damaged component was discovered. These complications combined with Library staff’s lack of general knowledge about how the kits were used during assignments and lectures prevented us from assisting MMJ patrons in the most beneficial manner possible.
In June of 2014, we launched a new ILS (Ex Libris) which enabled us to analyze our current lending policies for this collection and rework it from scratch. After interviewing MMJ faculty and students about their user needs, we were able to work within the limitations of our new ILS to streamline the circulation process to benefit patrons and Library staff.

**Challenges**

**Molly:** The PSU Library is a busy place and our equipment circulates heavily. The biggest challenge we have is remembering to inspect the equipment when it comes back. Often while we are checking in the laptops, we have a line of people waiting. We quickly inspect the equipment for missing or damaged parts. We check the laptops to see that the student has logged off so that the next person can log in easily. Fortunately, we have had minimal damage to our laptops, despite the heavy circulation. The Library Technologies department is responsible for maintaining the equipment. The technology student employees clean and reimage the laptops weekly.

Circulation employees provide basic troubleshooting help if a student is having problems with the equipment. Because our student employees use the laptops and computer equipment themselves, they can help with basic issues. If a laptop is having trouble logging on, we will often simply switch one laptop for another and diagnose the problem once the student is on their way with a functioning laptop. During peak hours of the day, the Reference Desk is staffed with a student employee from Library Technologies who can answer questions and help with computer and laptop issues.

We also debated about having waivers at the desk for the laptops and decided that for our library it would not work. Having patrons sign waivers was too disruptive to the workflow at the desk, and we did not want to keep track of thousands of papers with patron information attached. Instead, we placed our waiver at the point where students log in. By logging in, the students agree to the following terms: laptops are not to leave the building, students are responsible for the laptops at all times, files need to be saved, and overdue charges are $20 per hour.

Billing is another challenge with heavily circulating equipment. We charge $20 for each hour the laptop or iPad is overdue with a maximum fine of $200. Overdue charges can rack up quickly. The replacement costs of $1,500 and $600 respectively are to deter theft of the equipment. We do have a petition process if students feel they were charged unfairly or if extenuating circumstances arise. We have not had to replace lost or stolen laptops, but iPads have proven to be more desirable.

An example of the old tagging system used by the UO Portland Output Room. Item parts and descriptions were minimal, which often confused patrons and staff when multiple kits were in use or a replacement part needed to be ordered.
Bronwyn: The Output Room is a busy service point which not only circulates equipment but also supports the large-format printing and scanning needs of UO Portland patrons. Output Room students are trained on all of the duties relating to supporting the printing needs of patrons, as well as lending the various MMJ equipment kits.

The limitations of our previous ILS made it difficult to create detailed item records which would allow Library student assistants to quickly verify if parts were missing or damaged based on how item inventory was configured within the system. Kits were often circulated without staff realizing that parts were missing or damaged, which created problems for MMJ students conducting off-site projects. Added complications arose when it came time to bill patrons for missing pieces, and all we had were the most basic of spreadsheets to log parts and accessories for re-ordering and follow-up. Comparing the inventory from the item record to the tagging system wasn't very streamlined, and our old tagging system wasn't always clear about the various components. Training students was often difficult because of all of the parts to track, which varied widely from kit-to-kit.

iPads
Molly: We did not have as much success with the iPads lending program as we did with the laptops. During our initial launch, the half of iPads were allowed to leave the library for a one week loan. The other half were three hour loans. The one week loan period iPads were far more popular, but we had a difficult time getting them back in a timely manner. We made the decision to keep them all at the three hour loan period and made them library use only. After that decision was made, the iPads did not circulate much at all. We knew that students preferred the laptops because they are much more conducive to writing papers and working on projects. The only time we saw heavy circulation of iPads was when the laptops were all checked out.

A typical UO Portland tech kit is very complicated and has many components which can be difficult to track or recognize as missing or damaged.
Even with the addition of two keyboards for the iPads, the circulation numbers continued to be low. Though we have not done a formal survey of what students are using the iPads for, anecdotal evidence tells us that students use iPads for browsing the internet and checking in on social media platforms, and not using them for coursework. We are considering using the iPads differently in the future. The most likely scenario is that we will loan the iPads in batches to support a class or group project. We have done this a few times, and it seems like the best academic use of the iPads.

**Accessible Laptops**

**Molly:** In the summer of 2014, we added an additional five laptops for students with accessibility issues, by partnering with the Disability Resource Center (DRC). Having these laptops available aligns with the mission of the DRC to remove student barriers to access in all aspects of their learning experience, and the library is pleased to be able to help support this service. The five computers are equipped with Job Access With Speech (JAWS), Dragon Naturally Speaking (speech-to-text) and Kurzweil 3000 (speech-to-text and literacy tools). Because the software requires a bit more training and support, we allow students to leave the library with the laptops in case they need to go to the DRC for assistance. The accessibility laptops do not circulate heavily but have a few dedicated users.

**Partnerships**

**Molly:** Our equipment lending program could not exist without the help of our Library Technologies team and the staff of the Disability Resource Center. Building partnerships both internally in the library and with external departments on campus are vital to the success of an equipment lending program. Portland State University manages audio/visual equipment separately through the Office of Information Technologies. However, we do allow A/Vs services to use our ILS for ease of checking out equipment. The math department gave us 25 scientific calculators in 2013 for students to check out and they continue to donate 5–10 more each year as calculators need replacing.
**Bronwyn:** After interviewing affiliated MMJ faculty and students, we established the key areas in need of improvement when circulating journalism equipment. Wish list items included: a better internal tracking mechanism for lost or damaged parts, clearer labeling, improved Library staff training and flexible lending policies customized for this unique collection.

Journalism faculty and students familiar with our kits were instrumental to these changes, as were the students employed by the Output Room, who worked directly with the MMJ students and were familiar with their common questions and concerns. After considering these requests, I then created a specific item location in Alma to house this particular collection and created unique loan rules which met the requirements of the department.

We hired a talented student worker, Hana Hiratsuka, to design our new labels which are eye-catching and easy to read. With the assistance of our Journalism department and Digital Media Production Specialist Chris Cosler and Hana, we overhauled our inventory documentation as well as our item labels, making them color-coded and instantly recognizable to student workers and MMJ students.

**Marketing**

**Molly:** At PSU, we marketed our laptop lending program by putting information and graphics on our digital signage located at various points on the first floor of library. We also placed flyers at the Circulation Desk. In addition, we posted a news item on our web page and posted about the lending program on social media. Though our laptop lending program has grown exponentially over the years, we still remind students about the equipment they can check out. We talk about it at orientation sessions each fall. The library has a large whiteboard at the front entrance where we write messages to the students throughout the term. We often use the whiteboard to remind students that they can check out laptops and phone chargers at the Circulation Desk.

The UO Portland’s improved tech equipment labels make it easy to account for components and to identify missing pieces.
Bronwyn: The UO Portland markets the specialized MMJ tech equipment kits during student and faculty orientations throughout the academic year. We also promote the kits via our monthly MailChimp newsletter which UO Portland librarians write and send to all UO Portland Journalism students via listserv. Journalism faculty also internally promote this collection to their students throughout the academic year, and update and maintain the collection as needed. This collection is suppressed from public view through our OPAC and is not bookable.

Recommendations:
Molly: To begin an equipment lending program, we recommend that you first consider if you have the infrastructure to support such an endeavor.

Do you have enough space for laptops and peripheral devices?
Is there technology support in the department or in the library?
Is there a plan for maintaining the equipment regularly?
Will your library be able to replace broken or damaged equipment quickly?
What is the plan for future purchases as equipment becomes outdated?

In addition, think about how you will roll out the equipment lending program. It is best to start out with a small fleet of laptops and a few other items, that way you can easily judge how the equipment is used and the popularity of the items. By calling it a “pilot program,” the library has the flexibility to make policy changes. It is important to listen to patron feedback. The students are the ones actually using the equipment and making their recommended changes (within reason) will ensure that the equipment is checked out.

Example lending policy (PSU):
• Ensure each laptop is inspected PRIOR TO CHECK-IN for the following:
  • Laptop is signed off from user account to Ctrl+Alt+Del screen.
  • Laptop has no potential damage or warning lights.
  • Laptop is powered on.
  • Wireless switch is turned to the ON position.
• After check-in, each laptop is placed in the cart and plugged into power.
• Report each problem laptop with a Technology Repair slip and place in cart with slip visible.
  • Power off and remove the battery if necessary, especially with liquid damage.
• Send all laptop user support issues to the 2nd-floor support desk when the desk is open.
  • Send early morning and after hours application support to the 1st-floor lab.
  • For hardware issues, provide a different laptop and use the Technology Repair slip process. Collect user info for follow-up if necessary.
• At closing, continue to ensure all laptops are secured inside the locked carts.

Bronwyn: After overhauling our MMJ equipment lending program in 2014, we came up with a Best Practices document to share with other libraries considering a similar program.
Suggested Best Practices for Launching an Equipment Lending Program at an Academic Institution

Here are a few tips on how the UO Portland and PSU Libraries established an effective equipment lending program which satisfies the needs of patrons, affiliated departments and Library staff.

Talk to Faculty and Students
An informal discussion with students and faculty about how they used the equipment collections inspired us to re-analyze our current loan rules and to adjust lending times and renewal options.

Good questions to ask: What do students want? What about faculty and staff? Is the demand for the equipment greater than what the Library has been able to offer in the past? How can the Library better serve the needs of students and faculty with existing loan rules? What would you like to see from the Library?

Discuss Item Policies
Do your current loan rules realistically align with the demands of the program you are aiming to support? What is working well and what isn’t? How will you bill or replace equipment components that are lost or in need of repair? Who will pay for replacement parts?

Make Your ILS Work for You
Be aware of the limitations of your ILS and suggest ways you can work around them in order to satisfy the requirements of the program you are supporting. Be creative! It is often possible to adhere to established rules of lending while serving unique programming goals.

Clearly Label Equipment Kits
Clearly labeling equipment kits with attractive color-coded tags make training, storing and organization much more effective. Don’t have much in the way of design skills? Outsource. Ask a talented student or staff member to help you create a label that is visually interesting and easy to read.

Conduct Regular Equipment Inventories
Regular item inventories help you to stay organized and to readily identify components in need of replacement or billing. Work with involved departments to establish an amortization schedule, so obsolete equipment is replaced every few years so students have access to equipment relevant to their needs.

Offer Consistent Training to Your Student Staff and Colleagues
Placing an emphasis on training Library student assistants and staff on the various kit components and how they are used in academic programs will help to reduce errors and minimize confusion at the circulation desk. Be sure to share this information with the department you are supporting, so you are all on the same page regarding various poli-
cies such as equipment replacement. This training combined with up-to-date inventory documentation and clear labeling will make your job much easier.

**Place an Emphasis on Accountability**
Consider implementing an electronic or paper release form for patrons to sign which establishes policy agreements in the case of damage, theft or loss of expensive items. We’ve found that these forms help to reinforce library policies and put the patrons at ease when a checkout occurs. Be sure to collaborate with your affiliated department so you can agree on terms in case something needs to be replaced or purchased.

**Conclusion**
We’ve learned a lot from this process in the last few years, and hope our experience can help others who are planning a similar equipment checkout system. Please feel free to email us if you have any questions, or would like more information.

*Portland State University photographs courtesy of Molly Gunderson.*

*UO Portland photographs courtesy of Chris Cosler, Digital Media Production Specialist, University of Oregon Portland Library & Learning Commons; ccosler@uoregon.edu.*