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Abstract

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Comments

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Get Out of Fines Free: Recruiting Student Usability Testers via Fine Waivers

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Abstract

St. John Fisher College's Access Services and Systems departments began a pilot project in which students with overdue fines tested usability of library websites in exchange for fine waivers. Circulation staff promoted the program and redeemed fine waiver vouchers at the Checkout Desk, while Systems staff administered testing and provided vouchers to participants. Staff evaluated the pilot to be a success, as qualitative data were collected to enable iterative changes to library websites, and users had a positive customer service experience. The piloted method may be applied in the future to assess other programs and services.

Introduction

Purpose

Like many academic libraries, St. John Fisher College's Lavery Library has explored a number of ways to effectively assess library sites and services, including a comprehensive assessment planning program (Hockenberry & Little, 2013). As part of this program, the library regularly employs web usability testing, which is a "process used to uncover interface problems and come up with possible solutions" (Emanuel, 2013, p. 215). In testing the usability of websites, we have explored methods of compensation, such as free food or gift cards, but struggled to recruit sufficient numbers of testers. Student assistants have filled that void, though they often prove to be "power users" of library services—they work here and use library sites daily, so they do not accurately represent what an average user would do when approaching our

sites. While the library conducts larger-scale usability tests when doing major changes to library web pages, we frequently rely on less data for day-to-day changes.

In 2014, an email on the ACRL College Libraries Section email list (COLLIB-L) presented an alternative incentive to recruit testers (Oliverio, 2014). Oliverio shared an initiative in which the library offers students an opportunity to review library pathfinders instead of paying overdue fines. As Library Systems needs to regularly examine how patrons use our resources and Access Services continuously evaluates its fine policies, this idea presented an exciting opportunity to offer patrons: not only would we more accurately represent the average user in our usability testing, we would incur goodwill and expose users to library resources they might not otherwise use. Students might become more invested in library success, and the library would demonstrate another way it is invested in the success of the students.

Lavery Library piloted a program in the Spring semester of 2015, in which students participated in a website usability test with a silent observer. In exchange, they received a voucher for a “get out of fines free” card. Students had the opportunity to manage fines positively and proactively, not punitively. This blended the interests of both Systems and Access Services departments, and developed a method by which we could assess and improve library services outside of our websites as well.

This incentivization method facilitates more *regular* testing to proactively identify where small-scale, iterative improvements can be made to our websites. In the process, the library would gather supporting data and test waters for larger-scale changes. This is especially important as the College selects and prepares for migration to a new content management system, and undergoes a site-wide redesign.

Literature review

Fines. The practice of charging overdue fines for late library materials has long been debated in academic and public libraries alike. A review of the literature shows an abundance of strongly-held opinions on the issue, although recent opinions lean toward reassessing whether fines are positive overall. Jessop (2011) considers fines as a necessary means to have materials returned. Others note that overdue fines *do* incentivize return (Bhatt, 2011; Leung, 2007; Sung & Tolppanen, 2013), though Bhatt's study deduced that the rate of fines may not be high enough to ensure prompt return.

Those opposing fines, or at least calling for a more moderate approach, frequently reflect upon themes of goodwill, library accessibility, and efficiency: Green (2008) posits that "more patrons might visit the library if they were not 'punished' with a fine" (p. 62). Reed, Blackburn, and Sifton (2014) report that Vancouver Island University Library stopped charging fines on most library materials and decreased the rate of remaining fines, stating they were "punitive", and noted goodwill and patron satisfaction as results (p. 277). Other academic libraries found similar results when revamping fine policies (Boyce, 2014; Mosley, 2004). Staff in charge of receiving payment of library fines also noted less negativity when fines were lessened or eliminated (Boyce, 2014; Mosley, 2004; Reed et al., 2014). Both Green (2008) and Plato (Jessop & Plato, 2011) suggest fines may actually be a barrier to access, and the American Library Association (1993) states that libraries utilizing fine policies must assess whether or not fines prevent accessibility. Like Lavery Library, some libraries do not even retain overdue fine monies (Boyce, 2014; Mosley, 2004) or see enough revenue from them to make a difference (Eberhart, 1999). This, coupled with considerations of staff time involved in handling fines (Leung, 2007; Mosley, 2004), begs the question of efficiency.

Alternative approaches to overdue fines are not abundant within the literature, although Mitchell and Smith (W. B. Mitchell & Smith, 2005) propose the use of prize incentives, and Leung (2007) suggests the use of courtesy notices. Public libraries have tried amnesty weeks (Eberhart, 1999), and academic libraries are following suit, particularly with “food for fines” programs (Clausen & Ryan, 2013). Lavery Library currently sends courtesy notices to users, and has hosted “food for fines” programs with student organizations in the past, but has not pursued other approaches until this pilot. Oliviero (2014) is the one of the first known to the authors to propose an exchange of a fine waiver for the review of pathfinders or other library resources.

Usability. The term *usability* is a general measure of how easily users can do what they need to do; the International Organization for Standardization (1998) defines usability as “the extent to which the product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.” Jakob Nielsen (2012) describes usability as “a quality attribute that assesses how easy user interfaces are to use”. Nielsen also defines *utility* as the related concept of whether an interface is functional: “does it do what the user needs?” *Accessibility* is another related concept regarding users with disabilities, and focuses on the elimination or reduction of technical barriers (World Wide Web Consortium, 2008). *User experience* is a broader term, gaining traction, which Usability.gov describes as encompassing usability, usefulness, desirability, findability, accessibility, and credibility (U.S. Department of Health and Human Services, n.d.).

Libraries, in examining their web presence, examine both the technical accessibility and a broader spectrum of usability using a variety of methods. Chen, Germain, and Yang (2009) found that 85% of Association of Research Libraries’ member institutions conducted web usability testing (p. 957), and 49% had formal usability policies, standards, or guidelines (p.

956). Emanuel (2013) assesses the characteristics and limitations of usability testing as a research methodology in libraries, and explores methods to mitigate these limitations. She emphasizes that as an evaluative technique, “data gathering in any format is valuable and can help information professionals make reasoned, data-driven decisions pertaining to interface development” (p. 213). Many libraries use these techniques to approach a decision point like a site redesign or the incorporation of a single search box (George, 2005; Swanson & Green, 2011).

As a usability test is by and large an *observational* research method, it can “identify behavior, actions, and so on that people may not think to report because they seem unimportant or irrelevant” (Connaway & Powell, 2010, p. 180). Krug (2010) says that usability testing “works because all sites have problems,” and “because most of the serious problems tend to be easy to find” (p. 16). Like other libraries seeking iterative improvements to their web presence (E. Mitchell, West, & Johns-Masten, 2015; Sonstebly & DeJonghe, 2013), we are interested in seeing what problems arise when real users try to use our site.

Methods

Participants

Participation in this pilot was completely voluntary. Library staff determined that, in order to limit potential for abuse and account for replacing lost or damaged materials, patrons would be eligible for the fine waiver program if:

- They were current students (faculty and staff do not receive fines);
- They had not already completed usability testing in the current academic year;
- They had *overdue* fines or no fines at all (“volunteers”); patrons with replacement fines would be excluded.

The exclusion of replacement fines was established in order to pay for lost or significantly damaged materials. \$10 or more in library fines result in holds on students' accounts, preventing students from registering for courses, checking grades, or accessing transcripts. In order to prevent conflict between Circulation staff and students approaching staff for last-minute usability testing, registration for usability testing ended a week before course registration for the succeeding semester.

Demographics and data

Concern about privacy of patron data encouraged the test administrators to collect only the data we could use for interpreting results. These data included:

- Academic program or major;
- Year of progress toward degree (i.e. freshman, sophomore, junior, senior, graduate).

Nothing personally identifiable like name, ID number, gender, sexual orientation, age, partnership status, race, or ethnicity, was collected. Data were obtained using screen capture and voice recording software, as well as a short face-to-face debriefing conversation.

The student name was collected and stored separately from the test data in order to prevent repeated tests within a single academic year. For the purpose of program evaluation, Circulation staff tracked forgiven fines as a dollar amount.

Materials and Procedures

The guidelines for registering and conducting the tests were shared on Springshare's *LibGuides* platform. A registration form (using *Google Forms*) and a scheduling poll (using *Doodle*) were embedded into the LibGuide, and after registration, Systems staff confirmed appointments by email. Only minimal technologies were needed to conduct the tests. The physical technologies only involved a student assistant PC in the Systems Department office with an inexpensive (~\$9) microphone. Screen capture and audio were recorded using

Techsmith's *SnagIt* software; free alternatives such as Techsmith's *Jing* would be just as effective for these purposes.

In order to encourage usability testing participation, email blasts were sent to those with more than \$7 in overdue fines at the beginning of the pilot, which started a few weeks into the semester when patrons were more likely to have accrued overdue fines. A second email blast was targeted to students with fines two weeks before registration, instructing testers to email the Systems Department for scheduling. To further promote the pilot, a physical "Stapler Sign" was placed next to the Checkout Desk's stapler, a high traffic area. Beside this sign, a stack of business cards shared the LibGuide address to direct users to register. A digital parallel to the "Stapler Sign" was incorporated into a wall-mounted television's slideshow rotation and into a carousel image on the library homepage. At the time, as this was only a pilot, Circulation staff opted not to train student workers at the Checkout Desk to answer questions other than what was already printed on the physical sign or business cards. Instead, students directed questions to the Systems Department, citing their contact information on the business cards.

Lastly, paper fine-waiver vouchers were printed for Systems staff to hand out upon usability testing completion. These vouchers included "fine print" which detailed important information for the participant: participants could exchange the voucher for up to \$10 in overdue fines only one time. If a participant had \$7 in overdue fines and wanted to use the voucher, the entire voucher would be redeemed; he or she could not use the voucher's remaining funds again at a later date. The voucher was not redeemable for cash, and was not valid for replacement fines. The library would not waive fines in the case of a lost, stolen, or destroyed voucher. Lastly, a valid photo ID was needed to use the voucher so that Circulation staff could confirm the name on the voucher matched the person redeeming it.

The tests themselves began with a briefing in which the tester became acquainted with the test procedures and expectations. A Systems staff member, acting as proctor, then turned on a program to record audio and screen activity. The tests took a *protocol analysis*, or “thinking aloud,” approach to usability testing. Per Connaway and Powell (2010), “during a protocol analysis, the user verbalizes the decisions and behaviors that he or she is performing” (p. 85). In our case, this verbalization was captured by audio recording and proctor notes. A less invasive protocol analysis method would use only microphone and screen capture, potentially reducing the effect of a proctor’s presence on user behavior. However, we determined that while the introduction of a proctor could bias results, this was mitigated by the chance to triangulate user spoken feedback and visible observation. Additionally, the user would experience a human connection with behind-the-scenes library operations.

The user then completed a series of tasks, using pages on library websites which included:

- Homepage on campus CMS
- Research guides (LibGuides)
- Search interface (EBSCO Discovery Service)
- Link resolver (LinkSource)
- Interlibrary loan (ILLiad)
- Library account (Sierra)
- Individual databases (various vendors)

As testers encountered problems, they talked through them into the microphone, and noted links and services they had been unaware of before. If a user was frustrated, the proctor asked if she would like to move on to the next task. After tasks were completed, the tester and proctor had

debriefing discussions in which the user shared any thoughts about the process or their experience with library services. Systems staff could then share relevant anecdotes and data with other members of the library staff.

Once usability testing was completed, each participant received a voucher from Systems staff which noted the participants' name, the person that conducted the testing, and the expiration date of the voucher. The participant could then bring the voucher and valid photo ID to the Checkout Desk for one-time use at a time of his or her choosing, so long as that time was before the voucher's expiration date. When redeeming the voucher, Circulation staff would select the "Waive Charges" button in the library's integrated library system, for the amount of overdue fines the student had on his or her account (up to \$10). Circulation staff would include a note of "used fine voucher" in the Payment Note field. This process allowed for staff to easily separate out fines waived during usability testing from other waived fines. Circulation staff would then write the amount of fines waived on the back of the voucher and give the voucher to the Circulation Coordinator for recordkeeping and later review.

After each test, the Systems staff compiled notes into Word documents to be shared with the Library Web Team. After all tests were complete, Systems staff shared the recorded video from a sample test and reflected on the process.

Results

Participation

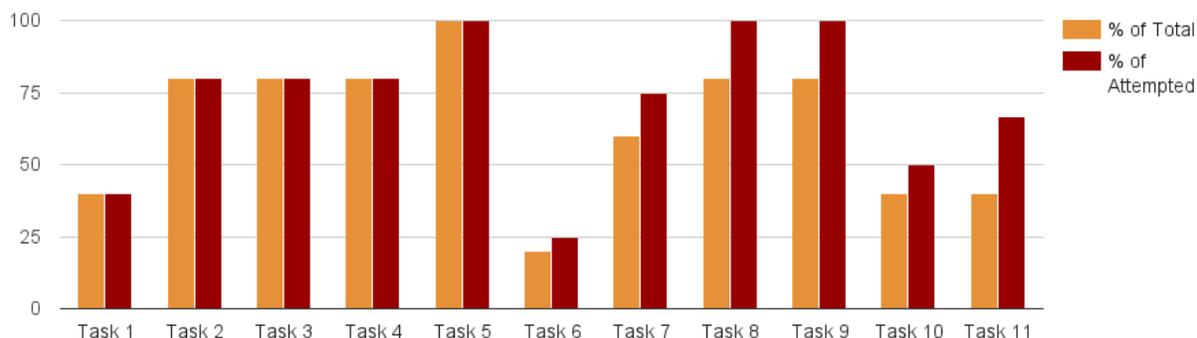
In the pilot semester, five patrons participated in the usability test program. These students were all upper-classmen, four being seniors and one a junior. This distribution is not proportionately unexpected, as the incentive of fine reduction would impact users with more checkouts. During the pilot period, library checkout statistics showed a skew toward upper

classmen, with seniors checking out more items (1,867) than freshmen and sophomores combined (626 and 1,026, respectively).

The patrons who elected to participate responded to three methods of outreach: three responded to the email blast, one to face-to-face interaction with Circulation staff, and one volunteered on the basis of the “Stapler Sign” marketing. None directly identified the webpage slideshow or LibGuide as impetus for participation. Circulation cleared \$37 in total overdue fines through testing.

Results from the tests

Table 1
Tasks and Percentage of Completion



Tasks

1. Find the full-text of this article:

Renold, C. (2000). Creating an online gerontology course: A bottom-up approach. *Gerontology & Geriatrics Education*, 20(4), 17–30. doi:10.1300/J021v20n04_04

2. Request this article through interlibrary loan:

Hong, S. J. (1990). The design of a testable parallel multiplier. *IEEE Transactions on Computers*, 39(3), 411–416. doi:10.1109/12.48874

3. Where would you look for research materials related to you major?
4. Which librarian can help you with an anthropology paper? How do you contact her?
5. Renew a book.
6. Where would you go to get a book for your course Physical Chemistry II, which the professor said is "on reserve?"
7. Find a video tutorial about searching effectively in databases.
8. Find a list of Education databases.
9. What are today's library hours?
10. How do you reserve a room in the library?
11. How long can you borrow a DVD?

Table 1 shows the tasks testers were asked to complete, as well as their rate of successful completion of each task. Participants showed particular difficulty with Question #10, regarding how to reserve a room in the library. To mitigate this problem, library staff brought the reservation link to the top of the Library Spaces page (it was previously embedded in a paragraph of text), and emphasized it through boldface and an icon. A link was also added to individual room calendars to make the option more findable.

Question #6, how to get a book on reserve, resulted in non-completion in the sense that testers (in their fourth year at the College) already knew to go to the Checkout Desk. Only one tester searched for the answer on the library website; everyone else said they would call or go to the desk directly.

The slideshow on the library homepage moved too fast for one user. Even though the user had his cursor on the image while reading and considering clicking, the slideshow cycled on to the next image before he could finish. When he finally clicked, it had moved to the next slide. Following the test, library staff reconfigured the slideshow to stop moving when a user holds the mouse cursor over it.

All participants used the library's discovery service search box, which searches for articles, books, and other research materials, in order to find policy and service information. They usually came up short, as the information they needed was on the library's website, not in its databases. To remedy this, library staff added "canned" keyword searches to the discovery service, displaying in a "Did You Mean?" fashion when a user searches for topics such as hours, interlibrary loan, and renewals.

Table 2 Results of Question 1: Finding Full Text of a Known Item			
Tester #	Found Full Text (Y/N)	Steps taken (clicks, searches, limiters applied post-search) ¹	# of Restarts ²
1	N	5	4
2	N	6	1
3	Y	8	3
4	Y	10	3
5	N	3	1

¹ Clicks of a link, limiters applied pre- or post-search, or typing search terms into a box were each considered a step.

² Restarts included switching database systems or starting a new search string.

All participants had some degree of difficulty with finding full text from a citation, which was the first question in our test. Table 2 shows, for each participant, the number of “steps” (clicks, searches, or applied limiters) and “restarts” (either deleting existing search terms and starting from scratch, or trying a different search system) between starting at the library homepage and either reaching full text or giving up. Only two of five participants reached full text without conceding defeat. Those that succeeded averaged nine clicks to get to full text, and restarted their search methodology an average of three times. These results may reflect a lack of user experience with known item searching. They may also show inadequacy of library discovery service searching when users search naturally: two patrons pasted a full citation into the search and did not retrieve results. This generally works in Google, but did not work in the search system.

Other problematic observations merit more consideration when a full-scale site redesign happens in 2016. In particular, participants identified problems with inconsistent branding and important links being hidden behind dropdown menus. A participant also identified another local library's website as a favorite, and library staff will consider that example when redesigning in 2016.

Discussion

Logistical considerations

Because this was the first time Lavery Library ran the pilot, unanticipated staffing problems arose. When patrons signed up for a time slot using Doodle, Systems staff were notified via e-mail. For most participants, Systems staff could email a confirmation, but one participant arrived immediately after scheduling a usability testing session. This caught Systems staff off-guard. To prevent this from happening, Systems staff closed the Doodle poll and instructed participants to schedule a session via email.

Similarly, although closing registration for usability testing the week before course registration was thought to be ideal when the pilot began, staff ended up turning several potential participants away. This left the library with less data, and frustrated many interested patrons with overdue fines to pay out-of-pocket.

Next steps

After evaluating the data collected through usability testing and the time requirements for staff at the end of the spring 2015 semester, it was decided that the pilot project would continue in the 2015-16 academic year. However, some adjustments were necessary.

Given the amount of time required for successful usability testing, as well as the amount of time required to track fines through the pilot, involved staff agreed to limit the number of testing slots in the fall to 20. If trends continued, this cap would accommodate for the testers that

we turned away during course registration week, but would still be manageable. Staff agreed to recruit through course registration week, as long as testers were made aware that only times convenient for both the tester and staff member would be available.

In the 2015-2016 academic year, the College will select and migrate to a new content management system. The recruitment method presented in the pilot will feed into a broader spectrum of user interface test activities. These will include:

- Qualitative assessments of mockups and wireframe layouts
- Menu option text and arrangement, through card sorting techniques
- Continued protocol analysis to identify problems with the new interface

Although the usability for fines pilot was not intended to assess information literacy skills of our students, the Library Web Team (of which many librarians and staff are part) remarked on the possibility of evaluating the persistence of information literacy in a student's academic career through usability testing results, as considered in Castonguay (2008) and Krueger, Ray, and Knight (2004). This opportunity will be reevaluated once the usability for fines pilot is more established and the College has finished its content management system migration and site-wide redesign.

Conclusion

The usability for fines pilot program was considered to be a success by staff and patrons alike, and Lavery Library will continue to integrate testing data into its assessment program. Offering an option for patrons to proactively manage fines through this program meets the usability testing needs of Systems staff and the fine management needs of Circulation staff. It is recommended that other libraries with like needs and policies consider implementing a similar model as a way to elicit goodwill and provide users with the best possible online experience.

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