



## CHAPTER 3\*

# A Mobile-First Library Site Redesign

## How Designing for Mobile Provides a Better User Experience for All

*Nathan E. Carlson, Alec Sonsteby, and Jennifer DeJonghe*

### Introduction

After nearly a decade of neglect and half-starts, Metropolitan State University's website needed an update. The university began a web redesign project to launch a completely renovated, mobile-first website that would reflect Metropolitan State's mission to deliver a vibrant, urban education for the Minneapolis-St. Paul, Minnesota, area and beyond. Although a contracted third party conducted the design work for the university homepage, much of the subsequent development happened in house, and the full site migration is still in progress at the time of writing. The library's own web team recognized an opportunity to utilize their knowledge of information-seeking behavior and universal design to improve the site's user experience for mobile users. Working in partnership with the university's Web Presence area and web developers in the IT Services department, the library web team was able to craft a stand-alone library homepage, fully functional on a smartphone, but sophisticated enough to satisfy researchers on any platform.

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# The Mobile Landscape

## *Where Users Are*

Increasingly, library websites must take multi-device users into consideration and move toward mobile-first site designs. Librarians may still be tempted to assume that library websites are too complex, and library research too involved, to be comfortably navigated with smartphones or tablets. The reality is that an increasing number of users are visiting library sites on mobile devices, and they do more than just check for hours or get directions. Indeed, a growing volume of evidence demonstrates that end users engage in complex tasks on mobile devices. A comScore report from March 2016 noted that 94% of 18-to-24-year-olds in the United States own smartphones and that an increasing percentage of mobile users are consuming books and video, handling transactions, and conducting research online. The same report showed that 62% of respondents access health information on a mobile device, and 32% of respondents access career information on mobile devices (comScore, 2016). The reason that many librarians assume that mobile users cannot do research on their phones might be rooted in the idea that only quick tasks can be done on a small device. This attitude is somewhat supported by studies such as the one conducted by Millward Brown Digital, which found that if a task is quick (five minutes or less), 81% of users in all age categories prefer to complete it on a phone. It is important to note, however, that even for tasks that last 10 to 20 minutes, 43% of respondents still preferred using a smartphone to using a laptop computer or tablet (2014). ComScore also found that recently, consumers have been choosing mobile devices with screen sizes of 4.5 inches or larger, and mobile phones with smaller screens are on the decline (2016), while evidence from other studies reinforces the idea that the larger the screen, the more time its owner spends using it (Wroblewski, 2016).

Librarians, who often interact with patrons who are visiting the library in person, tend to hold a skewed view of “typical” information-seeking behavior since many in-person visitors engage in longer, desktop-centric transactions. However, it should not be assumed that all research tasks take more than five minutes. Many information seekers make use of databases and research tools in short bursts: in 2015, 61% of e-book use “events” at Metropolitan State were sessions lasting five minutes or less, according to unpublished usage statistics. Additionally, some users may state a preference for using a desktop for research, but their actual behavior may deviate from that, particularly if they are in a location where mobile might simply be the most convenient available option. It is imperative that libraries recognize the role played by mobile devices in the lives of their users and the overall complexity of their online behavior.

## ***Accessibility and Equality of Access***

Beyond recognizing the increased use of mobile devices, there are ethical reasons for concern regarding patrons who may not have the luxury of a choice of platform. In 2015, the Pew Research Center found that about 15% of the US population is considered to be “mobile-dependent,” with either no other online access or limited online access. Additionally, those who are more likely to be mobile-dependent are disproportionately likely to be of lower socioeconomic status or from a nonwhite population (Pew, 2015). Neglecting mobile-dependent users means disregarding a significant percentage of the library user population. Many of these patrons are already in a more vulnerable position when it comes to equal access to library resources. Other mobile-dependent users are those with specific types of disability, for whom natural user interface (NUI) devices (touch screens, haptic feedback devices, and the like) are more adapted to their needs (Henning, 2016). The first item in the ALA Library Code of Ethics states that librarians should “... provide the highest level of service to all library users through appropriate and usefully organized resources; equitable service policies; equitable access; and accurate, unbiased, and courteous responses to all requests” (American Library Association, 2008). A mobile-first site design is necessary for providing equal access across the multitude of device types, patron types, and abilities.

## ***A Multi-Device, Mobile-First Approach***

In a user experience (UX) framework, designers approach website organization by thinking about the interrelated journeys and tasks undertaken by users throughout their online environment (Greenberg, Carpendale, Marquardt, & Buxton, 2012). User journeys are discussed in detail later in this chapter; however, Paul Adams, a web developer who has worked for Google and Facebook, has also described how typical users are in fact multi-device users, navigating between a number of devices and screen sizes as they move throughout their day (2015). A user might very well begin working from a mobile device, switch to a desktop or laptop, and then transition back to mobile in the course of completing a single task. Thus, UX designers have moved from considering “mobile users” as a discrete group apart from “desktop users” and instead assume that both groups are moving between devices as a part of their user journey or story. Yet, as presented at a 2014 Event Apart conference, a mobile-first approach is still preferred when designing for multi-device users (Wroblewski, 2014). By designing for mobile first, and in particular for the smallest likely screen size, libraries can ensure that their sites present resources in the most usable and accessible manner. Since many sites designed for a desktop environment already suffer from clutter and an overly complex interface, designing for usability, accessibility, and simplicity on mobile delivers a better multi-device experience as well (Wroblewski, 2014).

Bad mobile design drives users away. In a 2012 study conducted by Google, 75% of US smartphone users surveyed preferred mobile-friendly sites, stayed on such sites longer, and returned to them more frequently. Conversely, 50% of users said that “even if they like a business, they will use them less often if the website isn’t mobile-friendly” (Fisch, 2012, para. 5). The same Google study found that website features that users consider to be mobile “unfriendly” include slow loading time, small buttons and links, difficult-to-use input fields, and having to pinch and zoom (2012). Moreover, search engines like Google are now penalizing the ranking for sites that users do not consider “mobile-friendly” (Schwartz, 2016). Websites that are not mobile-friendly thus lose traffic in two ways: from users who simply avoid using the sites and from users who never find unfriendly sites because search engines suppress them.

## ***Responsive Design***

The current recommended practice for designing for mobile is to use responsive web design (RWD), which is no less true for library websites (Tidal, 2015). In responsive web design, websites resize automatically based on the screen size of the device. This optimizes the experience for users whether they are viewing a site on a desktop, tablet, or smartphone. Given a multitude of mobile devices, from the smallest smartphones to large phones exceeding 5 inches, “phablets” of 5.5 inches and above, and full-sized tablets, all of which can shift from landscape to portrait mode, RWD has become not merely good practice but a necessity. This approach is preferable to creating a dedicated mobile site that is separate from a desktop site because a dedicated mobile site generally provides less content and a diminished experience for the user. A responsive site standardizes functionality across devices, an important consideration for multi-device users. Responsive web design is also preferable to the creation of mobile apps for institutions like libraries because of the effort and difficulty of maintenance and design consistency across multiple devices (Glassman & Shen, 2014).

# Understanding User Needs and Behaviors

## ***User Demographics and Device Use at Metropolitan State University***

Metropolitan State Library’s Google Analytics account currently reports an average of 23,356 unique monthly users. Just over 10% of those visitors accessed our site using a mobile device in 2015. While the total number of mobile users of the library website is still small as an overall percentage, that number has been rising steadily

over the years. Additionally, the Metropolitan State University Library may report lower mobile usage than other libraries because the site has only recently become mobile-friendly and because of differences in the university's user population.

Metropolitan State has 11,505 currently enrolled students, 43% of whom are students of color. The average student age is 32 (Metropolitan State University, 2016). While the university does not keep statistics on the number of students who are mobile-dependent, given the demographic profile of the university it can safely be assumed that many students fit this category. In any given term, around one-third of courses offered at Metropolitan State are offered online. Students enroll from across the Minneapolis-St. Paul Metropolitan Area, outstate Minnesota, and the world. Thus, by the time of graduation, 97% of students will have taken at least one online or hybrid course (2015 data). This suggests that even students who may not consider themselves "online students" are very likely going to navigate an online learning experience at some point, and analysis of their device use is especially important.

## ***User Surveys***

The intuitive way to understand user needs is to simply ask those users what their needs are. However, many usability experts caution against conducting surveys or focus groups, as users are notoriously bad at accurately reporting their behavior, and even worse at predicting what they will do in the future (Nielsen, 2001). In other words, what users say they do, and what they actually do, often diverge widely. Web design books such as *Rocket Surgery Made Easy* instead urge designers to rely primarily on usability testing, where one can observe user behavior in action and let actions and experiences, not stated preferences, guide web design (Krug, 2010). Despite their limited value, surveys provided the library team with some guidance during the early phases of the redesign, especially before the team had formed a working prototype with which to begin usability testing. At Metropolitan State University, the library web team conducted two surveys as part of the web redesign process. The first survey targeted library staff only, while the second (created and distributed with the help of the Web Presence area), focused on a broad spectrum of library patrons. In the survey of library staff, the questions centered on tasks that staff had observed end users struggling with when attempting to use the library website. The assumption was that many of the phone calls, instant messages, and in-person visits to service points in the library reflect usability faults with the website. While this assumption is an obvious oversimplification, it provided some useful starting points from which the library web team could begin the process of site design. In the survey that went out to end users, the questions asked about the reasons respondents visited the library website, the types of devices used, and their overall satisfaction with the site for performing various tasks. (See appendix 3A. User Survey.)

Both surveys conducted as part of this process were created using the free version of SurveyMonkey. The staff survey link was sent via e-mail, and the survey of end users was shared via e-mail and linked on the website and through social media. The 257 respondents for the broader survey were likely not representative of the user base as a whole as there would be a self-selection bias. Nevertheless, the survey instrument was free and yielded useful information.

## ***User Personas and Job Stories***

While surveys hint at which features users may want on the library's homepage, and analytics confirm actual traffic patterns, neither of these tools reveal information about types of functionality that users do not yet know that they want or that does not yet exist. Furthermore, the usual model of presenting every library tool at the same time often obscures the most common functions and overwhelms users. The creation of personas and job stories allowed the web team to personalize the experience of the library's users, explaining how they "will use, experience value in using, and continue to use" the site (Lichaw, 2016, p. 70).

The library web team had two user personas developed by graduate students as part of a course project in the technical communications program at the university. The personas were designed to represent two different types of students that staff commonly see at the library, one being a tech-savvy mobile user who is a first-generation immigrant, and the other an older returning adult student who also uses mobile but in a different way, focusing on transactions rather than social engagement. The web team uses personas both to help visualize the library's end users and to establish context for scenario mapping or creating job stories. While the personas represent fictional users, they assist the team in staying grounded in the practical realities end users face, in identifying "pain points" where users get stuck trying to meet their needs, and in maintaining a higher level of empathy.

With personas established, the development team created job stories that illustrate the tasks users need to accomplish. The team identified a job, broke down that job into its constituent tasks, and described how each persona might complete these tasks on the current site, which helped to illuminate the causality and motivations for the tasks. Finally, the team brainstormed changes to the current system that would improve the job and satisfy the user context. For instance, one job that students face is finding time in a busy schedule for studying. The sub-tasks might include finding out when the library is open, reserving a study room in the library, or finding study materials quickly. One of the personas, "Joe," has a smartphone and a laptop computer and works full-time during the day. Joe encounters the complicated tasks of finding the library's hours, reserving a study room, or using his smartphone to navigate the website. These tasks were irritatingly difficult on the previous, mobile-unfriendly website. The development team might implement such solutions as listing the current hours on the homepage or

creating mobile-friendly study room booking and course reserves modules. By putting themselves in Joe’s shoes, the team could identify the quickest and most direct “path” for a user navigating the site. The user journey maps were created on a whiteboard with colored markers. Boxes represented tasks, and arrows illustrated the user’s course of action. The team photographed the maps and referred to them throughout later design phases.

## Pre-Design Phase

### *Collaboration*

A key part of the web design work done at the Metropolitan State University Library is based on a collaborative model and team-based approach, both within the library and between the library and external departments. Since its inception, the library web team has been comprised of a mix of librarians and library staff from both public services and technical services. The web team has a team charter and a “usability guiding document,” written collaboratively and reviewed annually as a way to foster a shared philosophy of user-centered web design. The charter specifies that no particular skill set is required to join the team and that members need only to be enthusiastic and dedicated to improving the library web presence. Group work and meetings are often done in a flexible work space (a simple room with a table and a stand-up computer or a smart conference room), and work is documented in a wiki on PBworks that is shared with the entire library department.

Metropolitan State University staff operate within a complex union environment, with a total of five unions and a number of university departments scattered across multiple physical campuses. The ownership and governance of the university website is a frequent source of formal and informal debate, and ongoing friction over whether the website should be “housed” in the Marketing department, the IT Services department, or elsewhere has slowed development of the university’s site redesign process. Librarians sit on the university-wide Web Advisory Committee and strive to enhance the university’s approach to web presence and to push for broader discussion about digital issues.

The web redesign team for the university consists of members from the IT Services department (ITS) as well as the Web Presence Director, who currently works outside of ITS in a department that also includes Marketing and Publications. The Web Presence team and ITS connect with frequent scrum meetings, short, daily meetings intended to drive development teams forward toward a common goal. Library staff have separate meetings at less frequent intervals and meet together with the university web redesign team about twice a month.

As is the case at many institutions of higher education, the library often struggles to maintain control over the library website content and to maintain that con-

trol during and through times of institutional change and staff turnover within other departments. As a result, the library web team has pursued, through the use of frequent meetings and communications, close working relationships with individuals in external departments who can work with, and advocate for, the librarians. Because the library recognizes and appreciates the talented developers, strategists, and UX professionals in the other departments, those staff are, in turn, more willing to work with us. And the library often has resources to contribute, whether it be people to share in the work, hardware for usability testing, or budgetary room to share in the cost of software licenses. The collaborative library's toolkit therefore should include humility, gratitude, and altruism.

### ***Collaboration Tools***

While frequent in-person meetings between the library and external departments are logistically difficult, in between the regular meetings librarians frequently collaborate and communicate with each other, and external departments, using a variety of online tools. While working on the site content, librarians frequently chatted with ITS developers and the Web Presence Director using Skype for Business and Facebook Messenger. Additionally, a Basecamp 3 collaborative space was established for sharing materials and files with the full team. In some cases, the collaboration tools used were simply what was most convenient at the time, with no sense that use would be ongoing or permanent. Moving from one communication and collaboration tool to another has been of little concern. The particular tool used is the least important aspect of team collaboration—an underlying philosophy of rapid and transparent communication powers the success of cross-functional teams.

## **Site Design and Testing**

The university's broader web redesign plan originally included collaboration with, and ultimately a homepage design from, a local web development firm selected through an RFP process. Because this plan and timeline changed (the project ran over budget and the development firm did not design the entire university site), the library web team developed a timeline of its own. With a highly complex site and the liberty of time due to the content migration delay, the library web team embraced an iterative design philosophy. This included a cyclical process, informed by competitor design analysis, usability testing, wireframing, card sorting, and mock-up. Many design projects employ these steps in succession, moving from analysis to card sorts to wireframing to usability testing to final design (Rosenfeld, Morville, & Arango, 2015; Morville, 2014). While this methodology can shorten a site's time-to-launch, hastening the process can cause a design team



to overlook moments of serendipitous discovery and chance findings. Providing structure while allowing space for spontaneity can result in a richer design.

## ***Usability Testing***

In response to feedback that the last website redesign at Metropolitan State University had launched with insufficient input from actual users, the library web team felt that a successful library webpage should incorporate observations of user behavior into the design cycle. The library has a practice of conducting usability tests at a minimum of once per semester. Mobile behavior has been harder to capture because it involves new strategies and equipment that disrupt old models of usability testing. In some forms of mobile usability testing, the team provides a mobile device that is preloaded with capturing software to be used by test participants. However, purchasing a piece of hardware in a state university requires the intervention and approval of several departments, including the library, Purchasing, ITS, and Accounts Payable departments. The library web team could not undertake this process every 14 months or so to keep up with the latest phone and software releases, in addition to managing the complexity of sharing a single device tied to an individual with a cross-functional web team. Furthermore, having test subjects use phones and operating systems they are not familiar with can be disorienting for them (Cerejo, 2016). Despite these complications, with the university launching a mobile-first site the web team could no longer ignore the importance of capturing user behavior on mobile devices. The team adopted a practice of mobile testing where users are observed using their own devices, which are positioned below a document camera. The camera records the test and projects it on a screen behind the participant for the observers to see.

There are a number of methods for usability testing, but the library web team employs a model adapted from the book *Rocket Surgery Made Easy* by Steve Krug (2010), which espouses a strategy of conducting frequent, simple, and inexpensive usability tests. Following this model, participants are recruited from the main library study area on the day of the testing, invited to help with improving the library's website, and offered an incentive of a gift card for five dollars from the university's bookstore. The participant is then shown into a separate room where the library web team has set up a laptop and a second screen that mirrors what is on the laptop. One member of the team reads through a script and guides the participant through a predetermined set of tasks (see appendix 3B. Test Script) while other team members observe and record notes about the participants' movements as seen on the second screen. Participants are encouraged to talk through their thoughts and actions in order to provide additional context for their on-screen behavior. After the test concludes, the team debriefs by comparing notes and impressions. Later, the team organizes the different sets of notes into a shared document and lists any action items resulting from the test results. For the homepage design

project, the library web team sought and obtained formal approval of its usability testing from the university's Human Subjects Review Board (HSRB). While this approval was unlikely to be necessary, since the results from usability testing are for internal use, the web team pursued it as an extra precaution to cover the potential use of data in future publication.

## **Wireframing**

Because coding an entire prototype in HTML and CSS within the university's content management system would have been time-consuming and effort-intensive, the web team first sketched on paper and whiteboard, then used prototyping software, to create simple wireframe models. The web team, following Rosenfeld, Morville, and Arango, needed a way to represent conceptual architecture in an interactive way (2015). Wireframes, mock-up sites with minimal styling and functionality, served as a way to test the site's layout and architecture without fully coding details that may still have been in flux.

The web team embraced a form of rapid prototyping based on wireframing software Axure. Axure's drag-and-drop graphical layout editor allowed the team to quickly develop wireframes, make iterative changes, incorporate team feedback, and share a testable site with the university web developers and test participants, all within a matter of hours. This process was so convenient, in fact, that the team was able to record feedback from one usability test participant, modify the prototype, and test these changes with the next participants within the same testing session. The Axure interface also enabled the team to create a responsive layout that displays correctly on various device widths, a crucial detail for testing on participant-provided devices.

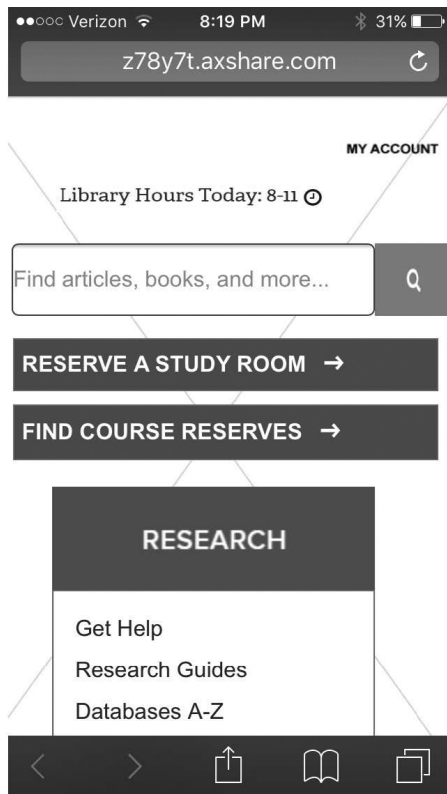
The team conducted two rounds of wireframing and tested them each with users: an A/B test (figure 3.1), followed later by a test with a functional mock-up (figure 3.2). The first round became an A/B test because one member of the development team was certain that users would prefer links listed in a drop-down menu, supported by the theory that users dislike scrolling to find content. Other members of the team looked at competitor designs and found few drop-down menus but lots of content boxes, lists of links, or other content set off from the rest of the page by a contrasting box, suggesting a general movement away from drop-down menus. For the A/B test, then, the web team constructed a wireframe with each format and asked participants to accomplish tasks using first version A, then version B, or vice versa. Test participants overwhelmingly preferred the content boxes, and, more importantly, accomplished the tasks more quickly with that model.

After the A/B test, a new mockup was created that used the content boxes and added full homepage functionality, including a more refined layout, input boxes, and clickable links. This second round of wireframing not only confirmed

the results of the card sort (discussed below), but also revealed the comfort level that users have with the new site. For example, when test participants were asked to locate a link to a study-room booking tool, two users began to reserve study rooms for themselves during the test. Another user had trouble locating the library's hours, listed at the top of the page, and instead scrolled all the way to the bottom where she expected to find them, suggesting that scrolling is not a barrier for users.

### FIGURE 3.1

Wireframe A/B test made in Axure.



### FIGURE 3.2

Functional homepage design wireframe made in Axure, displayed on iPhone.



The wireframe results influenced not just the final design, but intermediate design steps as well. Clarity on the question of scrolling versus drop-down menus persuaded the team to include more links and information broken out on a longer homepage (which takes more time to scroll through), rather than hidden in menus. Many test participants indicated that instead of using links or a site-specific search function, they would use Google to find the Metropolitan State library informa-

tion they wanted and bypass the homepage navigation entirely, an attitude that spawned a fruitful subproject to improve the library's search engine optimization and Google search result rank. Finally, as Rosenfeld et al., point out, a wireframe "helps clarify the grouping of content components, their order, and group priority" (2015, p. 407). This, combined with feedback on the A/B wireframes, led the web team to rethink the labels and link names used in the card-sorting activities.

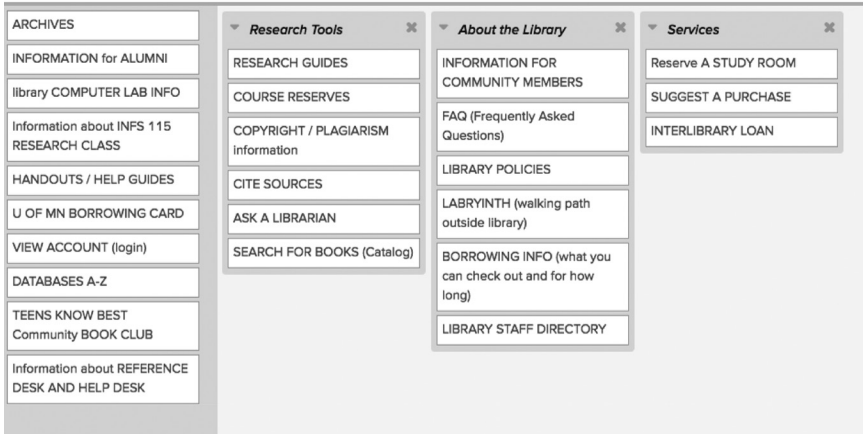
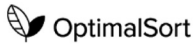
## ***Card Sorting***

Concurrent with the wireframing and usability testing, the library conducted card-sorting sessions both physically, with notecards and pens, and digitally, using a program called Optimal Sort, which is part of Optimal Workshop (figure 3.3). Participants took prelabeled cards representing existing content pages and arranged them by type, then named the new categories using whatever language seemed appropriate. For the physical card sort, two populations participated: library staff, and a classroom of undergraduate information studies students. Staff are expert users, and the information studies students were moderate to expert users since they had spent most of a semester using the library website. The library web team did not intentionally seek out expert users, but used a population that was readily available. Thus, the team had to consider that the users who participated were atypical users and factor that into their discussion of the results. In the digital card sort, the library web team created the digital "cards" but again allowed the participants to name the categories themselves. The advantage of the digital card sort was that the library was able to solicit participants via e-mail and social media who were remote to the library, including students at local community colleges who were not enrolled at Metropolitan State University and thus had no familiarity with the old website. The advantage of the physical card sort came from observing the participants, watching their facial expressions, and noting the time it took to complete the task. In some cases, participants articulated confusion over language used for particular cards, which we noted for follow up testing in other forms of study, for example, usability testing.

From the card-sorting activities, the library web team gleaned information that helped with the overall mapping of the site and the site architecture. The team got a sense for how end users logically clustered activities and information together, often in ways that deviated from the expectations of librarians. For example, most end users sorted "Interlibrary Loan / Article Delivery" into categories called "Research" whereas library staff often placed it into a generic "Services" category. Card sorting also revealed what page content students deemed unimportant. Pages of library policies, information about specific programs, and the staff directory were left unsorted or put into a category called Other. The response to the card-sorting activity was positive overall, and participants reported that they enjoyed completing the activity.

**FIGURE 3.3**

Screenshot of digital card sort in Optimal Workshop.



## Challenges and Future Directions

Metropolitan State University faces a considerable challenge due to the lack of time and resources dedicated to web development and usability testing. No one library staff member has been assigned the development, maintenance, and evaluation of the website as a primary duty. Web design consists of work that the team of staff and librarians do when they can fit it into their schedules and often at the expense of other, primary duties.

The way patrons approach websites has changed rapidly in the past ten years as mobile device use has exploded and device types continue to proliferate. Given that environment, the lack of dedicated resources and support for professional development opportunities at Metropolitan State University has made it difficult to keep pace. This makes continued collaboration with staff outside of the library (such as with ITS) imperative. Many levels of university administration continue to exhibit twin blind spots in understanding the role of technology in students' lives and in understanding their obligation to provide a true digital campus. This perception gap results in organizational decisions that hinder the work of web developers, librarians, and staff.

It is the desire of the university's Web Presence Director, as well as the library web team, to avoid any further "redesigns" and to move forward with a philosophy of continuous improvement. Once the library site redesign goes live, the next steps will center on continued usability testing to fine-tune a user-centered expe-

rience for patrons. There is much that still can be improved, but with a mobile-first foundation in place, the site can be adjusted and improved in smaller, incremental steps. Such steps will include targeted usability testing that focuses more specifically on users with disabilities to ensure that the design is as universally usable as intended. Additionally, the librarians intend to pursue a slightly more formal process of usability testing. While the light, “pop-up” style of usability testing has a number of advantages already described, the results are difficult to share in a way that is meaningful for people outside of the web team. Polished-looking, shareable results can help garner buy-in from decision-makers at the university, which is especially important when results could point to a need for investment in additional personnel and resources. Sharing results also illustrates to administrators the amount of behind-the-scenes work that goes into designing a good website. Finally, the impact of watching and listening to an end user as he or she struggles to accomplish tasks cannot be overstated and goes a long way toward convincing stakeholders of the importance of a highly usable website. Thus, a process using screen-recording and annotation software will be pursued. These recorded sessions will be presented in staff meetings or shared over e-mail both within the library and to the broader university community.

As the site design becomes more established, the library can broaden and deepen testing by creating additional user personas and more nuanced user journeys. For example, the team can probe the question of whether certain users engage in forms of quicker research on a phone and then transition to a desktop or laptop for longer tasks and discuss how that might inform our design. End users demonstrate complex behavior, using the library in a multitude of ways on a multitude of devices in the course of their day and in their academic career. The library can facilitate their successful navigation of this environment using personas, user journey mapping, and usability testing and meet that complexity with simplicity in site design.

## Acknowledgments

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## APPENDIX 3A

## Metropolitan State Library Homepage Redesign, User Survey

1. Are you a(n):
  - a. Undergraduate Student
  - b. Graduate Student
  - c. Faculty/Staff
  - d. Alumni
  - e. Community Member
  - f. Other (please specify)  
[checkbox, with Other being open, multi select]
  
2. During the school year, I use the Library website:
  - a. Daily
  - b. Weekly
  - c. Monthly
  - d. Once a semester
  - e. Never
  - f. Other (please specify)  
[Radio button, with Other being open, limit to one selection]
  
3. From what location do you usually access the Library website?
  - a. Library
  - b. From another location on campus (Saint Paul, Minneapolis, Midway or Brooklyn Park)
  - c. Work
  - d. Home
  - e. I don't usually visit the Library website
  - f. Other (please specify)  
[Radio button, with Other being open, limit to one selection]
  
4. What is the **most common** reason you use the Library website?
  - a. Finding resources related to research or course requirements
  - b. Checking my library account, renewing items
  - c. Getting directions or hours for visiting the library in person
  - d. Seeking assistance from a librarian, via phone, chat, or reference desk
  - e. Get information on citing sources (APA or MLA)
  - f. Getting e-reserves associated with a class
  - g. Other (please specify)  
[Radio button, with Other being open, limit to one selection]

5. When you visit the Library website, how often do you do the following:
- Find items physically in the library building, such as books, DVDs, and other items
  - Renew checked-out items
  - Access e-reserves
  - Request materials from other libraries using Interlibrary Loan
  - Use the library One Search (search box), to research topics
  - Use the Library's databases (such as Academic Search Premier, Lexis-Nexis, etc.) to locate an article from a journal, magazine or newspaper on a specific topic
  - Access e-books
  - Check library hours
  - Find contact information for Library staff
  - Ask questions (Ask a Librarian chat or email)
  - Get help with citing sources and formatting a bibliography (such as APA or MLA)
  - Use tutorials and guides related to academic papers or technology
  - Find a specific electronic magazine or journal by name
  - Use electronic encyclopedias/ e-reference
- [Scale Headings: often, sometimes, rarely, never, did not know I could do this]**
6. Which statement best reflects your experience when navigating the Library website?
- I am always able to find the services, databases or resources I look for.
  - I am usually able to find the services, databases or resources I look for.
  - I have difficulty finding the services, databases or resources I look for.
  - I am unable to find the services, databases or resources I look for.
  - Other (please specify)
- [Radio button, with Other being open, limit to one selection]**
7. Would you be willing to participate in a face-to-face study to improve the usability of the Library website?
- Yes
  - No
  - Other (please specify)
- If "Yes," please provide your full name and email address.
- [Radio button, with Other being open, limit to one selection]**
8. Are there any other services or features you would like to see added to the Library website?
- [Open-Ended Question]**



## APPENDIX 3B

# Metropolitan State Library Homepage Redesign, Test Script: Wireframe 2

### *Introduction*

Hi, [participant name], my name is [your name], and I'm going to be walking you through this session.

You've already heard a little bit about this, but let me explain more about why we've asked you to come here today: We're testing the Metropolitan State University Library's website to see what it's like for students and library patrons to use it.

I want to make it clear right away that we're testing the site, not you. You cannot do anything wrong here. You may quit your participation at any time and it won't affect your relationship with me, or anyone else at Metropolitan State University.

We want to hear exactly what you think, so please don't worry that you're going to hurt our feelings. We want to improve the Library's website, so we need to know honestly what you think.

As we go along, I'm going to ask you to think out loud, to tell me what's going through your mind. This will help us.

If you have questions, just ask. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them, but I will try to answer any questions you still have when we're done.

Do you have any questions before we begin?

### *Background Information Questions*

Before we look at the site, I'd like to ask you just a few quick questions. First, how long have you been a student at Metro State?

Good. About how many hours a day would you say you spend using the Internet, including email?

Have you used the Library's website before? [If yes] how often? On what kind of device (desktop, phone, tablet)? [If no] Why not?

OK, great. Now we can start looking at the library website.

## Usability Test

1. [Start at library homepage.] You're on the way to meet your study group at the library, but you heard the library was closed. How would you check to see if the library is open? How would you find the hours for tomorrow? [desired response: finds hours]
2. You were supposed to book a room for your study group, but you forgot until now. Where would you go to book a room? [desired response: finds link to study room booking]
3. You are supposed to research for a paper, but you have never done this before. Where would you go to get started with your research? [desired info: student finds Library Guides or OneSearch]
4. This page is totally confusing! How would you get help? [desired: student clicks chat widget or get help]
5. You have had a book checked out for weeks and it's overdue! Where would you go to renew it? [desired info: student clicks My Account or Checkouts and Renewals]
6. If you wanted to get a copy of a book or journal article that Metro library doesn't have, what would you do? [desired info: finds interlibrary loan link]
7. How long can you check out a DVD from the Metro Library? [desired info: finds policies or checkouts and renewals]
8. Can you think of other reasons you might check the library website? How would you find that here?
9. Any other comments on this page?

Thank you, that was extremely helpful. Do you have any questions for us, now that we are done?

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