User Experience Librarians: User Advocates, User Researchers, Usability Evaluators, or All of the Above?

Craig M. MacDonald
Pratt Institute, School of Information and Library Science
144 West 14th Street, New York, NY 10011
cmacdona@pratt.edu

ABSTRACT
User Experience (UX) is gaining momentum as a critical success factor across all industries and sectors, including libraries. While usability studies of library websites and related digital interfaces are commonplace, UX is becoming an increasingly popular topic of discussion in the community and is emerging as a new specialization for library professionals. To better understand this phenomenon, this paper reports the results of a qualitative study involving interviews with 16 librarians who have "User Experience" in their official job titles. The results show that UX Librarians share a user-centered mindset and many common responsibilities, including user research, usability testing, and space/service assessments, but each individual UX Librarian is also somewhat unique in how they approach and describe their work. As a whole, the research sheds light on an emerging library specialization and provides a valuable snapshot of the current state of UX Librarianship.

Keywords
User Experience, Libraries, Librarianship.

INTRODUCTION
User Experience (UX) is an increasingly important area of focus across every industry, with rising consumer demand for usable, useful, and desirable technologies. With digital and virtual library services becoming commonplace, libraries are not immune to these developments and are challenged to not just provide services to their users but to do so in a way that is both engaging and pleasurable. Usability studies have been a staple of the library profession for several years, but it was only within the last decade that mentions of "user experience" began to emerge in the library literature (e.g., Reeb, D'Ignazio, & Law, 2006). A major turning point in the evolution of UX in libraries occurred in 2007 with, first, the launch of the Designing Better Libraries blog (http://dbl.lishost.org/) and, second, when Brian Mathews was named the User Experience Librarian at Georgia Tech Libraries (Mathews, 2007). These two unrelated developments marked the beginning of a critical conversation about improving library experiences beyond those in the digital realm. As an early proponent of taking a more experience-centered perspective to the library, Bell (2008) encouraged libraries to adopt a design thinking approach and "move beyond thinking of our primary product as just a commodity to which we offer access." Forrest (2009) expanded on this idea with the concept of the "experience library" as a place where "transactions are useful, service is helpful, but experience is memorable — and potentially transformative."

Since then, UX has become an increasingly popular discussion topic throughout the library community, with a particularly strong push in the academic library community (Walton, 2015). Some notable examples include Aaron Schmidt's User Experience Librarian column in Library Journal, the UX Caucus in the Special Libraries Association (SLA), a Holistic UX session at the 2013 Computers in Libraries conference, and an article on UX Thinking written by the president of the Library Information Technology Association (Vacek, 2014). More substantively, the past year has seen the launch of three venues explicitly dedicated to the discussion of UX in libraries: the Weave Journal of Library User Experience (launched in October 2014; http://weaveux.org/), the Designing for Digital conference (launched in February 2015 in conjunction with the Electronic Resources in Libraries conference; http://www.designingfordigital.com/), and the User Experience in Libraries conference (launched in March 2015; http://uxlib.org/).

Clearly, UX continues to gain momentum in the library world, likely leading many libraries to consider creating a position dedicated to improving library experiences. However, not every library may be ready to add a UX Librarian to their staff, especially if there are varying ideas about what UX Librarians bring to the table (Schmidt, 2011). Thus, it is an opportune time to delve more deeply into the role of the UX Librarian and better understand who they are and what they do, so that libraries can make more

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informed decisions about whether a UX Librarian would benefit their organization. To provide a more accurate and complete picture of UX Librarianship, this research will be presented in two parts. Part one (this paper) will outline the scope of UX Librarianship in terms of what UX Librarianship is, what UX Librarians do, who becomes a UX Librarian, and how they learn UX. Part two (forthcoming) will explore organizational factors around the introduction of UX Librarian positions, the challenges UX Librarians face when doing their work, and the benefits of having a UX Librarian on staff.

LITERATURE REVIEW

Defining User Experience

Creation of the term "User Experience" is often attributed to famed design researcher Don Norman, who held the title User Experience Architect while working at Apple Computer in the mid-1990s and was responsible for "work[ing] across the divisions, helping to harmonize the human interface and industrial design process" (Norman, Miller, & Henderson, 1995). At the time, the Human-Computer Interaction (HCI) discipline was predominated by a focus on the usability of user interfaces, typically measured by ease of learning and ease of use (Lindgaard & Parush, 2008). Interest in usability has continued, but massive technological advancements of last decade have driven a renewed focus on UX that implores designers to focus on creating pleasurable experiences rather than eliminating painful ones (Hassenzahl & Tractinsky, 2006).

While there is still no widely accepted definition of the term (Law et al., 2009), there is an emerging consensus that UX is determined by (a) the user's internal state (i.e., emotion), (b) the user's past experiences, (c) the user's goals and needs, and (d) the user's external context (Lallemand, Gronier, & Koenig, 2015). Because of this complexity, UX Design (or sometimes simply "Experience Design") is an adaptation of the traditional user-centered design process that requires multi-disciplinary collaboration between engineers, software developers, graphical and industrial designers, marketers, salespeople, and others, in order to create a harmonious and seamless experience for customers (Nielsen & Norman, n.d.). To do this work, a large and diverse professional UX community has emerged and includes people with a broad range of professional responsibilities (from conducting interviews and observations to creating wireframes and prototypes) but always with a concerted focus on matching user needs with business goals (UXPA, 2013). The vast majority of UX professionals work primarily with digital interfaces, though there is an emerging area called Service Design that also incorporates physical experiences and person-to-person interactions (Polaine, Løvlie, and Reason, 2013)

User Experience in Libraries

Libraries have a long and rich history of adopting and promoting a user-centered philosophy (Fidel, 2000), so it should come as no surprised that they have continued this legacy through the adoption of UX methods and tools. Initially, the primary connection between libraries and UX came in the form of usability studies of library interfaces, including the library home page (Stephan, Cheng, & Young, 2006), virtual reference services (Nilsen & Ross, 2009), mobile websites (Pendell & Bowman, 2012), and discovery tools (Condit Fagan, et al., 2012), among others. While usability studies are still common, there seems to be an emerging trend of adopting a broader set of UX tools and methods (e.g., Gallant & Wright, 2014).

Much of what is currently known about the role UX Librarians comes from an interview with Brian Mathews (Dorney 2009). Mathews, who is recognized by many as the first person to hold the official title of User Experience Librarian, described his role as "look[ing] at the big picture and then to help design a better overall experience for our users" (Dorney, 2009). He discussed leading projects that involved gathering feedback on student laptop usage, library furnishings, and the library's visual identity (notably, Mathews did not mention the library website in the interview). In July 2011, the Association of Research Libraries (ARL) released SPEC Kit 322 focused on Library User Experience, reporting that nearly all responding institutions were gathering data on user engagement though not all of them were referring to it as UX. The report presented the various ways academic libraries were implementing UX methods and identified surveys (especially the LibQual survey) as the most common method of collecting user feedback, followed by focus groups and usability tests. Apart from these two resources, though, not much is known about how exactly UX is applied in library settings (Bell, 2014).

METHODOLOGY

Cox and Corrall (2013) identified three common methods of studying new library specialties: content analysis of job descriptions, surveys of current practitioners, and case studies of individual institutions. However, UX is an emerging library specialization with few posted job descriptions and little knowledge about the exact roles and responsibilities. Instead, this study used semi-structured interviews in order to gain a richer understanding of the commonalities and differences in the lived work experiences of UX Librarians across a variety of contexts. This approach is not without precedent: a similar method was used to study academic reference librarians (Bronstein, 2011; Burns & Bossaller, 2012) and clinical librarians (Tan & Maggio, 2013), among others.

Procedure

While there are many people who perform some aspect of UX in library settings – indeed, one of the key points to remember is that all libraries "do" UX regardless of whether they have a UX Librarian on staff – this study focused on only those individuals whose primary professional role was explicitly related to (or described as) UX. To compile a list of potential research participants, a

search was conducted on the Web (for the phrase "user experience librarian"), LinkedIn (for librarians who had "user experience" in their job title or listed "user experience" as a skill or area of expertise), and Twitter (searches for individuals tweeting with the #libUX or #libraryUX hashtags). These searches yielded a preliminary list of 74 librarians and their associated contact information.

An initial goal of this research was to get an equal representation across all library types, but this proved difficult because there are few public librarians with a dedicated focus on UX. Instead, attention turned to getting a balanced representation of library types (small and mid-sized academic libraries, large academic libraries, public libraries, and library consortia[1]) and geographic areas (Northeast, South, Midwest, and Northwest). Following best practices, purposive sampling was used to identify an initial subset of 25 individuals who fit the population criteria and also represented varying levels of seniority within their organizations. A solicitation message was prepared and e-mailed to these individuals, which included an invitation to participate in an approximately 45-minute interview via telephone, Skype, or Google Hangouts. No remuneration was offered and all interviews were audio recorded and transcribed.

Participants

Interviews were conducted with 16 librarians, at which point the researcher determined that saturation had been reached and no further participants were needed. Due to the uniqueness of UX-related positions, precise job titles and geographic locations have been omitted to ensure the anonymity of the participants. However, it can be reported that all participants held job titles that included the term "User Experience." More specifically, eight participants had the exact title of "User Experience Librarian" and two participants held leadership positions in departments dedicated exclusively to UX. The remaining six participants held job titles combining UX with other library responsibilities, including web development, instruction, assessment, technical services, and marketing/outreach. As a whole, the participants were representative of different library types and geographic areas, as shown in Table 1.

RESULTS

Data analysis was conducted using the constant comparative method (Glaser & Strauss, 1967). The most common method for analyzing qualitative data, the method involved repeatedly reading through the data and grouping and regrouping individual pieces of data into categories until a coding scheme emerged. The coding scheme was then analyzed to identify common themes, which were then grouped to answer four broad questions:

[1] Though not a traditional library context, some library consortia employ User Experience Librarians and were thus deemed worthy of inclusion in the study.

	Academic (small or mid)	Academic (large)	Public	Consortia
Northeast	4	1	1	
South	2	3		1
Midwest	1	1		1
Northwest	1			

Table 1. Participant breakdown by library type (columns) and geographic area (rows).

- What is User Experience Librarianship?
- How do User Experience Librarians do their work?
- Who becomes a User Experience Librarian?
- How do User Experience Librarians learn UX?

For each question, the headings in italics are the main themes that emerged and italicized quotes are direct statements from participants that support each theme.

What is User Experience Librarianship?

Four themes captured the overall essence of UX Librarianship: UX is broadly defined and characterized by user-centered thinking, UX work is strongly informed by user research (both qualitative and quantitative), UX work encompasses both digital and physical interactions, and UX work includes usability testing but not "design."

UX is broadly defined and characterized by user-centered thinking

There was near-universal consensus (14 of 16 participants) that UX is defined broadly to encompass a user's entire experience with the library. Although usability testing of digital interfaces was a common responsibility (see below), participants were clear in emphasizing that it's "only part of [UX Librarianship] - what about the other services that people may not even be aware of?" (P-01). The common sentiment was that "the heart of UX is about user engagement" (P-09) and therefore the job of the UX Librarian is to "create a compelling experience" (P-10) by understanding and improving all of the various touch points users have with the library. UX Librarians are therefore responsible for "look[ing] at our different systems, both physical and digital, and try[ing] to work through it the way that the user would to understand what that experience is" (P-16). For one participant, this all-encompassing approach to UX was the most appealing aspect of the job:

"When I learned of the title of User Experience Librarian I was like, 'That! That's what I want to do!' because I like the idea of it being more encompassing and not just evaluating how we're doing but looking at the whole picture and making the experience better for people from when they walk in the door to when they leave, virtually or in reality." (P-08)

All of the participants thus expressed a strong user-centered ethos that informed every aspect of their work, with some even going so far as to describe their work as "not thinking as a librarian" (P-13). Thus, the UX Librarian's "core role is to help think about all the different places where our systems and services inter-connect or could inter-connect" (P-05).

Notably, the two participants who did not prescribe to this broader definition of UX both worked for library consortia without physical locations, and therefore were only involved on digital projects and services.

UX work defined by research; qualitative methods preferred

All but one of the participants described the importance of collecting data from users to both inform and support their UX work. Participants discussed a wide range of research methods they employ to solicit user feedback, both formally and informally. For the latter, one participant described implementing a "Tell Us" campaign (to parallel an "Ask Us" campaign) in which the library encouraged its users to "tell us how we're doing and how we can do things better" (P-12). Another participant described a "flip chart feedback" method in which the librarian placed flip charts around the library with a question written on them and an attached marker so library users could quickly and easily provide their answers (P-08).

In terms of more formal research methods, two participants mentioned being responsible for administering the LibQual survey and four others cited developing homegrown surveys of their users. Otherwise, there was a general preference for qualitative research methods, particularly focus groups, interviews, and observations. Examples included focus groups with university faculty to uncover their concerns about library services (P-12), sitting at the circulation desk to observe in-person interactions with library staff (P-10), and on-site observations to learn how faculty conduct research (P-11). Overall, these research efforts were driven by a general desire to find out "what corner of the universe does the librarian reside in in people's consciousness?" (P-11). As this participant noted:

"Some of the richest data we get, and some of the most surprising things that we learn, come from the questions we didn't even know to ask until somebody mentions something and we start to investigate that and just say 'Tell us more about that.'" (P-11)

With this emphasis on collecting user feedback, it was somewhat surprising that only a handful of participants (4 of 16) reported having an explicit connection to general library assessment (though two additional participants mentioned selecting the title of "UX Librarian" rather than "Assessment Librarian" because the latter was too closely associated with statistics).

UX work encompasses both digital and physical interactions

A majority of the participants (10 of 16) described job responsibilities related to improving users' digital *and* physical interactions with the library. Of the remaining six participants, three had roles exclusively on the digital side (including, not surprisingly, both consortium participants), two had roles exclusively on the physical/services side, and one was doing entirely library outreach/instruction due to staff shortages.

For the participants whose role covered both digital and physical interactions, their exact responsibilities varied in both depth and scope, from leading both their library's website re-design project and their library spaces team (on the high end) to conducting usability studies and being a member of the library spaces team (in the middle) to collecting general user feedback about the library's website and services (on the low end). As one participants described the scope of their work:

"Virtually any aspect of the building or of a typical experience can come through our department, from urinals and hand dryers in the men's bathroom all the way up to 'we need to re-think the way we consider our collection development strategies.'" (P-03)

Of the 13 participants whose role covered digital interactions, all of them were involved with their library's website in some capacity. However, the nature and scope of their involvement varied from "handl[ing] most of the maintenance and upkeep" (P-02) of the website to "being the *de facto* web editor for our department" (P-08) to "managing our discovery service" (P-05) to simply creating LibGuides for various instructional purposes (P-15). Three participants also mentioned being heavily involved with library-wide website re-design projects (and one additional participant was hired for this purpose but had to put the project on hold after staff departures). Otherwise, a majority of the web-related UX work consisted of usability testing of web-based interfaces (as explained below).

Of the 12 participants whose role covered the library's physical spaces and/or services, three mainly gathered general user feedback about the library and nine discussed being involved with a project aimed at improving users' physical interactions with the library. Of the ten projects mentioned (one participant was involved in two projects), six were tied to a specific library space and included: a remodel of the library's study rooms (P-10), a re-design of the reference department into a collaborative learning space (P-12), the design of a new research commons (P-03), a renovation of the library's first floor (P-09), the design of a new information commons outside of the library (P-11), and the design of a new library learning commons (P-13). In each case the UX Librarian reported being directly responsible for considering the design and layout of the space from the users' perspective, which typically started by trying to "understand what [the users] experienced as they went through our spaces and found spaces to get things

accomplished and interacted with different service points" (P-09). As another participant explained, studying library spaces can be complicated:

"[We] developed a process of both observation but also photographic evidence to see how furniture moved around in the space over time...[so we] reset the furniture each week and then watched it migrate around the space and out of the spaces and into other spaces. Now with all that evidence we're going to be...bringing students together to talk about what we learned and get their ideas on how we might add things or subtract things from the space." (P-12)

The other four projects were not tied to specific library spaces but still had a direct impact on users' physical interaction with the library. One project focused broadly on all the "touch-points through the library and to understand where our pressure points are" and was still in the data collection phase (P-16). In another project, the UX Librarian did not set out specifically to study the library space but in the course of doing library assessment research learned that students in wheelchairs had difficulty opening the bathroom door because it was too heavy (P-01). Another participant discussed a multi-stage project to introduce a new touch-screen kiosk placed near the library entrance to help visitors orient themselves to the building (P-06). Finally, one participant described an extensive project aimed improving wayfinding within the library that began with a diary study and culminated in a brand new library-wide signage system (P-03).

UX work includes usability testing but not "design"

Because UX Librarians conceptualize their roles more as user researchers, it is not surprising that most participants (12 of 16) conducted usability testing and typically presented it as just another method they use to understand their users' experience with the library. The only difference, it seemed, was the extent to which usability testing was a part of the UX Librarian's responsibilities. For some participants, particularly those at smaller institutions, usability tests can be a hard sell because they are perceived as time- and resource-intensive by upper management. Other participants described robust procedures and protocols for conducting usability tests on a regular basis:

"There's one [usability method] we call a 'raw test' where we have some stakeholders who are involved in the development of the site or care about it one way or the other. We'll line up a half-dozen participants and we'll ask them some questions and we'll show what is on their screen over WebEx over the course of a morning and then over lunch have a discussion about it." (P-14)

Three participants mentioned recording test sessions (using Camtasia or Morae) because, as one participant noted, "I can show those video clips to stakeholders and they're just astounded" (P-10). Otherwise, participants expressed a general preference for more informal guerilla-style usability tests in which "we set up a table in the lobby of [the library] and encourage people to spend a few minutes with us, and we buy them a coffee from our coffee shop" (P-03). Also worth noting is that usability testing was usually done for the main library website though some participants mentioned testing other interfaces, including a new ticketing system for technical services (P-08), a study room reservation system (P-10), an institutional repository (P-10), and a new library kiosk (P-06).

Of the four participants who did not explicitly mention usability testing as part of their responsibilities, one was in upper management and not directly involved in any specific UX projects while another had just recently rejoined their library's web team (which they described as "in flux" due to the departure of the library's web manager/webmaster). The other two participants said they were not directly involved with the web, though one remarked that they "share the data [they collect] with people who are [involved with the web]" (P-01) and the other had done usability testing at a previous job.

Despite the prevalence of usability testing, and despite being closely aligned philosophically with the UX profession, just seven participants explicitly mentioned using design-oriented UX methods. Further, there was very little overlap in the type and popularity of these methods: card sorting was the most common method (four participants) but other methods were mentioned by just one or two participants, including sketching (2), digital prototyping (2), paper prototyping (2), web analytics (2), competitive analysis (1), and personas/scenarios (1). This general de-emphasis of design-related activities would suggest that UX Librarians might be better classified as UX *researchers* rather than UX *designers*; as one participant described: "I'm not actually a designer, so I can identify the problem [but] I don't always know how to fix it" (P-08).

How do User Experience Librarians do their work?

In terms of doing UX work in a library setting, three themes emerged: UX is combined with other traditional library responsibilities, UX roles exist in various places in the organizational hierarchy, and UX Librarians tend to function as internal consultants with little decision-making authority.

UX is combined with other traditional library responsibilities

All participants reported having other library responsibilities in addition to their UX role. For the vast majority of participants (14 of 16) these responsibilities were more traditional library roles; the remaining two participants had combined roles in UX and assessment. By far the most common of the traditional responsibilities (11 participants) was traditional reference and instruction work, from providing support at the reference desk and via online chat, telephone, e-mail to teaching technology-related classes and conducting information literacy sessions. Other responsibilities included acting as departmental liaisons (5 participants), serving on library-wide committees (3

participants), and specific technical work (1 participant). Two participants also had management responsibilities.

Although one of the participants mentioned performing these roles as a way of informing their work (e.g., P-03: "I think it keeps me honest [and] helps me see things first on the front lines that our researchers are expecting, and seeing, and experiencing."), other participants – particularly those in smaller organizations – took on these responsibilities more out of necessity:

"[My boss] would really like it to be more of a position where I could be spending more like 60 percent of the time on UX, but the reality dictates that people come into the library and need help, so the research, reference, etc., takes precedence most often." (P-16)

This concern about balancing UX and non-UX responsibilities was usually driven by organizational circumstances and will be explored further in part two of this research (forthcoming).

UX roles exist in various places in organizational hierarchy

One potential reason why UX roles were often combined with traditional library roles is that "there's no natural home [in the library] for UX yet" (P-12). In this research, it was notable that a majority of participants (12 of 16) were the sole individual with UX-related job responsibilities in their organization. Six participants were embedded in another department (four in public services or its equivalent, one in technical services, one in member services) and therefore working directly alongside research, reference, and/or instruction librarians while the other six participants worked directly for the dean or director. Overall, six of these participants were on a staff of eight or fewer full-time professional staff members.

The remaining four participants were located in dedicated UX departments within their organizations but each of these departments had its own unique structure: one participant was head of a UX department that also included a web developer, an assessment coordinator, and student and graduate assistants; one participant was a member of a UX department that also included a server administrator and was led by an assistant director (who also headed the reference department); one participant was the only full-time member of the UX department but managed two student workers; and, one participant was head of a department and managed nine staff members across four units (including assessment, outreach/user education, user spaces, and web/mobile services).

UX Librarians work as internal consultants with little decision-making authority

Regardless of the organizational structure, all of the participants described their role as a kind of internal consultant who is "there to help any department within the library that needs help at any given time" (P-10). As one participant explained:

"We go out to other units [in the library] and offer our assistance and any expertise we'd been able to garner over the last few years and just simply offer to help them in sort of very practical grounded work…[in terms of] 'We're here to help with a project you're working on.'" (P-12)

While working in a consulting role typically means taking on a wide variety of projects – one participant reported that they "say yes to everything that people ask us [to do]" (P-06) – it also means the UX Librarian has limited authority to implement changes, which can sometimes be frustrating:

"You're serving in an advisory capacity, right? So I'm not actually empowered to make those changes… I [only] get to do the research [and] say 'this is where the problems are, these are what I'd recommend as changes.'" (P-09)

As a result, many participants described a big part of their job as figuring out the right person to give the data to and hoping that "if you give them the data they'll figure out what to do with it" (P-01). Many of the participants stressed how developing strong communication skills is "absolutely critical to the work that [they] do" (P-03) because implementing recommendations often requires buy-in and support at all levels of the library. As one participant explained, it typically comes down to tailoring the message for the audience:

"If we can make the numbers say what we want them to say, then [my supervisor] is more likely to go with it. For other people it is more the 'touchy feelies'…for some people it's all about the students, some people it's all about the design, some people it's all about making things easier, some people it's all about what the data says. It really just kind of depends on the individual person." (P-16)

So, while some participants would prefer "a webby-like 'Let's just roll stuff out' kind of approach" (P-02) to their work, they often need to adjust their expectations to account for practical realities:

"I find myself scaling down my hopes and dreams sometimes...Originally I was like 'oh, I want to usability test the website' and then I was like, 'or maybe I'll usability test the three sections I have access to change.'" (P-08)

In this regard, successfully implementing this consultancy-based model was largely dependent on the participants' ability to understand and navigate their library's culture:

"It's one thing for the particular technique of 'how to do this one usability test' but how do you do that within an organization and pay for it and get people lined up? And how do you do it again? And how do you get reports out and how do you get the reports read and acted upon? All that organizational stuff is just as important or more important within this type of environment." (P-14)

A deeper exploration of these organizational challenges, including strategies for overcoming them, will be presented in part two of this research.

Who becomes a User Experience Librarian?

Reflecting the emerging nature of UX Librarianship, all of the participants described themselves as the first person to hold the position in their organization. It is therefore not surprising that there is no common set of characteristics that define the type of person who becomes a UX Librarian. Instead, three broad themes emerged: the educational backgrounds of UX Librarians are varied, many UX Librarians have prior library experience, and there are multiple pathways to become a UX Librarian.

Educational backgrounds are varied

A defining characteristic of the participants is the variety of their educational backgrounds. While all participants held a master's degree in LIS or its equivalent, the 16 participants represented 14 different LIS programs from all over the United States, with just two programs (University of North Carolina-Chapel Hill and University of Michigan) mentioned by more than one participant. This variety also extended to undergraduate education: five participants held undergraduate degrees in English, but the rest of the participants held undergraduate degrees in a wide range of disciplines, including history, politics, graphic design, film/media, music, science, anthropology, engineering, and education. Four participants also held a master's degree in another area, all of which were in the humanities.

Many have previous library experience (in a variety of roles)

Another defining characteristic of the participants is that many of them (12 of 16) had previous library experience prior to becoming a UX Librarian. However, the type of library experience varied greatly; sample positions included teen librarian at a public library (P-03), reference librarian at a community college (P-04), library assistant (P-09), branch manager for a public library (P-10), government information specialist (P-12), systems librarian (P-14), library webmaster/web manager (P-11), and library media specialist at a high school (P-15). Of the four participants who had no prior library experience, three were in their first positions after graduating from library school while one had previous experience working for a library vendor.

Interestingly, just half of the participants mentioned having significant professional experience outside of libraries. But, again, there were few commonalities: two cited experience in project management, three had experience with design, two referenced previous work in customer service, and programming, IT support, and teaching were mentioned by one participant each.

Multiple pathways to UX Librarianship

There was an almost even split in terms of how participants became a UX Librarian, with seven participants being new hires from outside the organization and nine participants being internal hires. But even within those two broad categories there were unique aspects to how each participant became a UX Librarian.

For example, one participant (new hire) was prompted to apply for their position via a message on Twitter. Another new hire described a process in which they became "interested in doing something more user experience-focused" (P-02) during library school and started searching for UX Librarian positions. Another new hire cited a combination of hard work and serendipity:

"Basically [the job] kind of fell…not into my lap, I mean it took a long time to find a job, but once my manager here saw that I had a diverse background [they] thought, 'OK, here's somebody who can look at this stuff in maybe a different way, or have the skills to create and design and think artistically.'" (P-16)

For the internal hires, a consistent theme was the importance of the organization's leadership in creating the role of UX Librarian. In one case, the process was fairly straightforward and, in fact, very supportive:

"I hit up on the User Experience stuff and I was like, 'This! This is what I want to do!' And [my boss] basically said, 'Great, we need one of those.'" (P-08)

By contrast, another participant described a much more circuitous path prompted by staff turnover:

"…I was appointed to co-chair the library's web group and so I was overseeing changes to the website and web interfaces and just getting more and more experience with virtual spaces especially from a user's perspective. Then when my former supervisor retired, we had an opportunity to bump me up to head of the department and ...to change focus a little bit [from instruction outreach] and make it into User Experience." (P-03)

Another internal hire described a top-down process, whereby Associate University Librarian (AUL) created the position and said, "Don't think of it as a new job or a second job; think of it as a new way to do your old job" (P-10). Another participant described a similar situation:

"We got a new library director who really wanted to have a position of someone that had the title User Experience Librarian, because that was important in terms of what [they] wanted to do with the library. I don't know that the institution had money to do an outside search, so basically [the director] and my then boss came to me and said 'Hey do you want to be a User Experience Librarian? It's kind of an extension of what you're already doing.' And I said OK because I thought I would like to still be employed [laughs]." (P-11)

Here again, the organizational factors driving the creation of UX Librarian positions will be more fully explored in the forthcoming part two of this research.

How do User Experience Librarians learn UX?

With few exceptions – one participated cited only prior job experience, one cited only library school, and another received no training at all – the vast majority of participants

	Count	Percent
Other UX Librarians	9	56.3%
Professional UX Community	7	43.8%
Library School Courses	6	43.8%
On-the-Job Training	6	37.5%
Non-Library Experience	5	31.3%
Additional Coursework (outside Library School)	2	12.5%

Table 2. Breakdown of where participants learned UX. Note that percentages do not add to 100% since most participants cited multiple sources.

(13 of 16) said they learned the UX portion of their job from at least two of the following sources (see Table 2): other UX librarians (i.e., conferences or informal networking/conversations), the professional UX community (i.e., reading UX-related books and articles), library school courses, on-the-job training, previous non-library work experience, and additional coursework.

Other UX librarians, both formally and informally

Nine participants described some variation of "learning by seeing what other folks in the field are doing" (P-12). Using other UX Librarians as a resource was actually the most common source of learning.

In terms of formal approaches, four participants mentioned the participatory design workshops by Nancy Fried Foster (formerly at the University of Rochester) as being integral to their learning process. Likewise, five participants cited library conferences as valuable learning experiences because they can "tailor [their] selections of presentations around UX, and there are more and more [UX Librarians] out there, which is nice" (P-03). For another participant, attending a conference was an important step in implementing a particular project:

"I went to a conference and somebody was talking about having done [a sketching exercise] in a really low-key way…and [I thought] 'Oh that sounds like something we could come up with a version of.'" [P-02]

Five participants discussed the importance of developing personal relationships with other UX Librarians and having regular conversations to get some general direction (e.g., P-13: "Hey, do you have any tips for me?") as well as more specific feedback (e.g., P-03: "I have some colleagues here [in the area] I can lean on for ideas; we're all set up a little differently, but we have common goals and interests."). Professional associations, like the SLA UX Caucus, will likely begin to play a larger role in helping UX Librarians make these connections.

Professional UX community

Seven participants cited learning from the professional UX community. While some participants mentioned attending UX-related conferences (e.g., the EdUI conference, the BLEND conference, and WebVisions), most of the participants took a self-directed approach to finding and reading relevant books and articles written some of most popular and well-regarded UX experts in the United States, including Steve Krug, Jakob Nielsen (through the Nielsen/Norman Group), Jared Spool, Jesse James Garrett, and Don Norman. Some specific learning resources mentioned by at least one participant included: "Useful, Usable, Desirable: Applying User Experience Design to Your Library" by Aaron Schmidt and Amanda Etches (the only library-centric resource on this list), "The User Experience Team of One" by Leah Buley, "Smashing UX Design" by Jesmond Allen and James Chudley, "Undercover User Experience Design" by Cennydd Bowles and James Box, and usability.gov.

However, it should be noted that some translation is required to bring professional UX knowledge into a library setting, mainly because of the difference in available resources. As one participant explained:

"[Corporate UX professionals] make a lot of assumptions about the resources that we have available in our world in terms of 'Oh yeah, you just provide some incentives for recruiting subjects.'…Seriously they're giving iPads to everyone who comes in for an hour, and I'm like, 'this doesn't help me.'" (P-11)

Library school courses

Six participants explicitly cited learning UX from their library school coursework. While this number may seem low, it doesn't tell the full story: half of the participants earned their library degrees prior to 2009, including three participants who earned their degrees in the 1990s and one in the 1970s. It would be unreasonable to expect LIS programs to have been preparing students for UX Librarian positions at a time when such positions did not exist. Notably, five of the eight participants who earned library degrees since 2009 reported learning UX from their library school coursework and the other three participants were unaware of UX Librarianship and thus did not tailor their coursework in this direction.

Many of recent graduates described having substantive and valuable UX-related learning experiences in library school. For one participant, a usability study completed for their master's project at the University of North Carolina-Chapel Hill was a defining moment for "getting some hands-on logistical how-do-you-actually-run-this-kind-of-thing experience" (P-02). Two participants attended the University of Michigan with double concentrations in LIS and Human-Computer Interaction, which provided ample opportunities for hands-on learning:

"Our classes [at Michigan] would partner with different companies and corporations to do UX design or interaction design coming from the user's perspective…[so] I had some amazing opportunities to work on some really good projects." (P-09)

A participant with a library degree from Simmons College also described the value of project-based UX experience:

"A big focus at Simmons was the technological side of libraries and what that means. I took a specific course on evaluation, assessment and user experience…We were lucky enough to have a user experience lab there, so we did testing, both internal and external testing with some clients from other Boston schools…[and] that's essentially where I learned UX." (P-16)

A participant with a library degree from the University of Illinois at Urbana-Champaign did not have the same success in finding hands-on UX projects in school because "user experience wasn't really a thing [yet]" but was still able to define an individualized course of study around UX-related topics:

"There were classes to take if I carefully chose my own…I took that users course [Users of Information], an interface design class, searching databases, an instruction class -- just things that just seemed related. Or, obviously when I took my reference class I very much looked at it through a UX lens." (P-08)

Overall, there's not enough data to say conclusively whether library schools in general are able to adequately prepare graduates for UX Librarian positions but the four programs mentioned (UNC-Chapel Hill, University of Michigan, Simmons College, and University of Illinois at Urbana-Champaign) seem to have an early edge.

On-the-job training

While learning on the job is likely common among all UX Librarians, just six participants explicitly said that they learned UX from on-the-job training. For these participants, UX education was an organic process of "just figuring it out as we've been going along," (P-14) starting when usability testing became a regular aspect of their jobs:

"I realized that the interfaces we were teaching were really clunky and I wanted to try to make improvements, but I understood that our developers weren't going to just take my word for it they wanted me to do some testing around it. So I did that and got more and more involved and engaged and really interested in that work." (P-03)

For other participants, on-the-job learning was closely tied to their involvement with a particular UX project. One participant cited a library-wide re-design project where "we did a lot of usability testing and user needs assessment activities" (P-05). Another participant cited their involvement with a consultant-led project where they got hands-on experience with user research methods, including interviews, observation studies, and focus groups (P-08).

Previous non-library work experience

Five participants noted the impact of previous non-library work experience in preparing them for their current positions. Three of participants cited their experience in design-related fields (e.g., graphic/web design and information technology) but cited the human-centered nature of the work as being more valuable. For one participant, doing project management and interface design in the IT sector was an "eye-opening experience" because "you could lose a million dollars if you didn't satisfy [the users'] needs" (P-01). Similarly, one participant recounted their experience in IT desktop support: "I didn't care about the nitty-gritty of the computer side of things, but I think I ultimately liked helping people" (P-08). Another participant drew inspiration from the service industry:

"I've always said that anyone that can wait tables can do [UX] because the way you're making money is you're getting the back of the house to do what you need because the front of the house person needs something and wants it in a certain way…I did really well at all those [types of] things…[and] all of those service aspects definitely informed my library career." (P-10)

Additional coursework (outside library school)

Finally, two participants mentioned learning UX from additional coursework outside of their library school education. One participant completed an Internet Professional program at a local community college while the other took advantage of graduate courses in HCI and ethnography offered at their university.

CONCLUSION & FUTURE WORK

This paper reported the results of a qualitative analysis of 16 semi-structured interviews with librarians from a range of organizational and geographic contexts (within the United States) whose job responsibilities were explicitly related to or described as "User Experience." The results of this research indicate that most UX Librarians may be better classified as "UX Researchers" rather than "UX Designers" in that they share a user-centered mindset and many common responsibilities covering user research, usability testing, and space/service assessments. However, each individual UX Librarian is also somewhat unique in how they approach and describe their work, likely stemming from differences in their academic and professional backgrounds, their ability to balance UX work with other library responsibilities, their level of authority within their organization, and their path to learning UX and becoming a UX Librarian.

As the first in-depth investigation of UX Librarianship, this research provides an informative snapshot of the current state of the profession in terms of what the UX Librarians do, how they work, who they are, and how they learned UX. However, this research only touched briefly on the organizational factors that often define the scope and impact of UX Librarians' work and ultimately drive the decision of whether a library should or should not create a

UX-focused role on their staff. These factors represent a critical area of future research and will be covered in the forthcoming part two of this research.

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