

Using Library Search: Findings from interviews with advanced undergraduate users

Background

The move to Charles Library represented a dramatic shift in how users access Temple Libraries' collections. With the majority of our physical items now stored in an ASRS, physically browsing co-located materials on open shelving is limited, and users must rely on our online discovery service, Library Search, to access the majority of our print items. To explore the impact of the new closed stacks environment on users, Emily Toner led a small team in a [design sprint](#). With consideration of the needs of different users as they find items in our collections and technical feasibility, we came up with a number of [potential solutions](#), such as expanded filter and facet options, to help users to browse and discover related items across our collections regardless of their physical location.

One of our noted future goals was to conduct user research to help us better understand how and if users use metadata such as call number, author, and/or subject/genre browse to find additional sources and to test any new features or enhancements built on those metadata connections. The goal of this study was to better understand how students find and evaluate sources generally and in the absence of physical browsing and to get user feedback on the new Library of Congress call number filter, an enhancement developed after the Browse Prototyping sprint. Specifically, we hoped to learn the following:

- How do users discover and evaluate sources?
- How/if users use metadata such as call number, author, and/or subject/genre browse to explore additional relevant sources
- Do users use filters in Library Search? How do they use filters?
- What are users' impressions of the "Library of Congress Classification" filter?

Physically browsing co-located materials has long been a key way to discover sources, particularly for humanities-based disciplines, and can be an important component of the research process. Our hope is that our findings can help to enhance the discoverability of items in our physical collections through the Library Search interface.

Method

To meet these goals, Rebecca and Jackie conducted interviews with four upper level undergraduate history students who were in the midst of substantial capstone projects that required finding and using at least two books. We used a semi-structured interview technique¹. During the interview we asked participants to describe a recent research project where they had

¹ Interview script: <http://bit.ly/scriptux>

to find multiple books on a topic. We asked them to send us their (final or draft) bibliographies beforehand and to use those during the interview to guide us through their research process.

We asked participants about their use of specific search strategies and tools; however, we emphasized that it was more important that they reflect on the research process generally rather than recalling every detail exactly. Following the interview, participants reviewed the Library Search interface with a focus on search facets, including the new LC filter. The sessions took place over zoom in December 2020, just as the fall semester was wrapping up. That timing allowed us to talk to students when their research projects were still in progress and fresh in their minds. Participants received a \$10 gift card for their participation.

Findings

Use of Library Search to Find Books

We asked the students to describe their use of Library Search when searching for sources for their recent history research papers, especially books. They primarily used the “Books and Media” box of the bento for their research. All four students reported typically using simple, broad keywords when looking for books on a particular topic. In most cases, these searches would result in a large number of hits. But rather than using filters or more specific keywords, they were usually willing to scroll through long lists of search results to determine which books were most relevant to their topic. The most frequently used filters were those for “Online availability” and library location. Especially during the Covid pandemic, being able to limit to books available electronically is extremely important, and everyone reported using this filter. A couple of students used the “date” filter to limit to more recent publications, but beyond that, none reported using any of the other available filters. They commented that the exact content or meaning of many of the other filters was unclear (“topic” and “genre,” for example, or the difference between “date” and “era”). Also, at least one student was concerned about the impact of applying a filter (in this case the “region” filter), stating “I don't necessarily find the region super useful because I always get worried that I'm gonna filter out too many things.”

In addition to searching for items on a topic, students also searched for works by a particular author or for known items which they had identified through bibliographies, recommendations from faculty and librarians, and searching beyond Library Search. In general, the students were quite satisfied with the functionality of Library Search, even though they didn't use its more advanced search features. “I wouldn't say that I had any specific challenges. I think the Library Search worked pretty well for me in this case.”

Evaluation of Sources

Students used a number of means to evaluate and select relevant sources. Information available within Library Search was only one means used to decide which sources would be most useful, which is not at all surprising. Recommendations from faculty and librarians were

one of the primary ways all of the students selected sources, especially early in their research process. And one student reported checking with their faculty advisor about a book before deciding to use it. Consulting bibliographies of previously discovered sources was also an important method of finding additional titles. Some students had previous knowledge of books and authors on their topic from past research projects.

As mentioned above, some students reviewed large numbers of Library Search results. They reported a quick reading of titles as the first step in their evaluative process. Then if necessary, they would click on the title to get further details. Summaries and other descriptive information were useful: "I would say if there is a book where ... the title was [topically relevant] I wasn't reading the description. I was just getting it. But if... the title wasn't as forthcoming I would read the description." But even with information like the table of contents in the record, it wasn't always enough information to determine the relevancy of a title. "If [the book's Library Search record] had a chapter list, I was like, oh, that sounds interesting, but I'm not really sure what's going to be in there."

Students often relied on tools and resources beyond Library Search to narrow their list of results. They cited the use of book reviews and evidence of literary awards in their evaluative process. They also made use of Google/Google Scholar to look for reviews, information about the author, and evidence of other citations of a work. At times they needed specific contextual information to make choices about which books were the best fit that could not realistically be included in any library ILS. For instance, one participant who was writing about Japanese cultural memory of the atomic bomb specifically in fiction, described how she used general internet searching to get a sense of which works were culturally significant:

"I looked for authors that had won like certain literature awards in Japan...I didn't really use the Library Search to identify works...I had a general idea of what I wanted. And, then I went to look for if the library had that available because...my thought was 'well I can search for, you know, fiction about the bombings using the Library Search, but that doesn't necessarily mean that it's all fiction that was in like it has had like a cultural impact or has a good reflection of memory.'"

Outside of the Covid pandemic, which left them mainly relying on ebooks, most of the students expressed a preference for print books. One of the most important means for them to determine the utility of print books is to physically examine their contents. One participant had 15 books checked out at one point. She told us, "I've returned a bunch of them. But like when I wasn't sure I was like, well, I'll look at it, you know."

Print Books/Browsing

As mentioned above, when on campus and able to access the library in person, most of the students were eager to use print books and three of four expressed an explicit preference for reading print materials. One student stated that "I feel like I'm doing, like, professional research

when I'm actually looking at a [print] book. Whereas I guess if I'm doing it through my screen, I often feel like I'm just doing, like, busy work for classes."

Most of the students were satisfied with requesting and picking up books from the ASRS. One student observed "when I did research then most of my books were in the Bookbot... which was convenient for me; I didn't have to have to look or anything. So, yeah, I like that aspect." And when students reviewed titles requested from the ASRS, they would typically check them out and take them home to review them in depth, rather than skimming through them in the library to determine which titles to actually check out. Although one student had reported not getting print books from the Bookbot during the 7 months Charles was open prior to the pandemic because it was "a mess" when it first opened.

But even for those who appreciated the convenience of the Bookbot, all the students shared that they had browsed the stacks in Paley or the fourth floor of Charles and valued doing so. The students recognized physical co-location as an indicator that materials were topically similar and felt compelled to browse nearby items. In other words, books in a library are "all, like, clustered together and whatnot" [by subject]. Another stated that "I do kind of like looking physically through like the books because like, then you can see...other kinds of categories that might relate to your topic."

One student shared that they only came to see the need and value for browsing the stacks once they were in more advanced history courses and doing more self-directed research. They therefore didn't do much shelf browsing in Paley but have found the open stacks in Charles to be very useful. "It's underrated for me because I'm a history major, the stacks on the fourth floor [are] nice to us." Especially when doing a comprehensive research project like a capstone, the opportunity to go to the shelf to retrieve a book and then, as one student said, "look around and [see] if anything like the other title, like, on the spine caught my interest" is valuable to students.

Covid Environment's Impact on Research

Although it wasn't the focus of our research, the impact of Covid on students' research practices did come up frequently in our interviews. Not surprisingly, students had to rely far more on ebooks during the pandemic even if it wasn't their preferred medium. And for many history books, no ebook version is available. One student, reflecting on her use of print books before returning to her hometown, said "I'm not on campus anymore. So it's a struggle." Another student purchased the books she needed to use for her research project from Amazon since she was not able to check out print versions from the library.

Library of Congress Classification Filter

One of the goals of our study was to get feedback on the new Library of Congress call number filter in Library Search, so we asked students to try using it during the interview. While at first glance, some of the students thought the filter might be useful, they mostly found the options within each call number range to be too broad or too limiting. Overall, the LC filter was confusing

and students did not believe they would use it in the future. Before trying it, one student hoped the filter would display books in a format reminiscent of the physical shelf, but then quickly found that it did not do that at all and was underwhelmed by its utility. Here are some of the other comments on this filter.

"If I saw that, I would just, I mean I would figure that that means Library of Congress, and I'd be like, Oh, that's a nifty piece of information, but not well not one that I would use in any way."

"So I don't wanna I guess knock it before I try it, but it seems like it's like a broad, so broad, I don't know how much it would actually filter."

One extremely important observation relating to call numbers is that students expressed confidence and familiarity in finding print books in the stacks, but they didn't connect the call numbers they used to find print books with the LC classification filter in Library Search. It is not that students don't understand LC call numbers. They just think of them as tools for locating physical books without conveying any other meaning about subject categories.

Recommendations

1. We need to offer a virtual/visual browse option in Library Search. Students recognized physical co-location as an indicator that materials were topically similar and felt compelled to browse nearby items. Each student we interviewed described going to the stacks to find a specific title and then browsing additional titles nearby. This is one of the primary ways students made connections to related works on their topic. With the majority of Charles Library's titles now in the ASRS and with the expected increase in online classes at Temple even post-pandemic, we NEED to add a virtual browsing option, even if it can't truly replicate the in-person browsing experience.²
2. We need to assess whether the Library of Congress Classification filter is useful to other user groups (besides advanced undergraduates) and if there are ways to improve its functionality. The current level of granularity offered by this filter is limited, and the available LC classification breakdowns remain very broad for most categories. For example, "History of the Americas" (E and F) offers no narrower categories. There may be some technical limitations to offering a more granular breakdown of call numbers, but if they cannot be overcome, it may be best to remove this filter altogether.
3. The design of the LC filter pivot tables also needs to be modified. None of the students in our study recognized that they could see narrower options within the LC categories by

² Development of a virtual browse within Library Search has begun. A Browse Design Week sprint was held in February 2021 to brainstorm and begin designing ways to incorporate lists of related items into Library Search. The goal is for these visual lists to be adaptable to different list types, including call number, author, subject, new book lists, etc.

clicking the “plus” sign. The same design is used for the new library location filter, and it is clearly not intuitive to users.

4. While the students we interviewed very seldom used any filters besides online availability, we do not recommend removing or modifying filters beyond possibly the LC facet from Library Search. Advanced filtering options are still important for some users, especially librarians (an important user category!), and perhaps faculty and other more sophisticated users. Filters do not hinder the usability of Library Search for those who are not interested in them.

Remote User Research

This project was one of the Libraries’ first user research projects conducted remotely during the COVID-19 pandemic. For this study, the remote setup worked very well, reducing many of the challenges of in-person research. Logistical tasks such as securing a private interview location, providing directions, printing scripts, and setting up a laptop and recording software were unnecessary. Zoom made it easy to capture everything including audio and video recordings and transcripts in one place. Transcript cleanup was time consuming, but far less so than if we had transcribed the interviews ourselves.

Most importantly, conducting the interviews remotely mitigated the feeling of unnaturalness that can occur when doing user research in a formal space. The students talked with us from their own locations and used their own devices to show us how they used Library Search. The uncomfortable feeling of watching and being watched that accompanies user testing was absent; the students shared their screens with us as they explored the Library Search interface, and we were able to easily see their screen interactions without looking over their shoulders.

The one limitation of remote user research is that the Libraries is currently unable to provide incentives for participation in remote user research. In this instance, Rebecca and Jackie felt it was important to offer a small gift to show appreciation to those who participated, and we paid for the four \$10 gift cards with our own money.

We recommend continuing to offer the option of remote participation when using qualitative methods such as interviews and usability or user impression testing. However, in the future, we hope the Libraries is able to fund small incentives.