

## User Research Methods

As part of our research, we were able to connect with Dana Sanchez at the La Jolla Public Library, who graciously agreed to an in-person interview and walkthrough and Adele Barsh at the UCSD Geisel Library who kindly took the time to speak with us. To ensure a **semi-structured approach**, we prepared a detailed set of questions with room for additional questions based on the individual interview. We used this [Google Form](#) to record notes during the conversation.

Dana provided valuable insights into the library's operations and demonstrated the software tools they use, which we obtained permission to record for our notes and future analysis. Additionally, we also got permission to record the interview audio for our other teammates to review later. ([Recordings](#) + [Transcription w/ Corresponding Video Clips](#) + [Transcription Summary](#)).

Adele was extremely thorough with all her answers and speaking to her provided some much needed context for our project. She was able to break down all the softwares she uses and their purpose. With Adele, we were only able to record audio because of privacy reasons and hence we have a transcript for our records. (Recording [Part 1](#) and [Part 2](#) + [Transcript](#) + [Transcription Summary](#))

## Interview Script/Questions

- **Introductions + Consent (5 min)**
  - Hi [**stakeholder name**], thank you for taking the time to help us with our project.
  - My name is [**XYZ**], I'll be moderating this interview and my teammate [**XYZ**] is going to be taking notes. Our project objective is to extend or redesign a feature of a widely-used web/mobile app or tool that library staffers might benefit from. So, the purpose of this interview is for us to learn more about technologies used by library professionals and discover insights about your specific experiences as a [**stakeholder job/role**].
  - **Consent:** Do you consent to a voice recording and/or taking pictures or videos of specific tasks?
    - *I'm only going to share it with our team and the data will only be used for project purposes. We won't share the recording with anyone else. Is that ok with you?*
- **Background questions (5-10 min)**
  - What do you do as a Branch Manager at the La Jolla Riford Library?
  - How long have you been working w/ the Library?
    - *Have you had any other roles prior to your current position?*
  - What types of events or activities do you host at this branch?
    - What resources or tools do you currently use to manage events?
- **Task/Observation questions (35-40 min)**
  - Walk me through a typical week at work. What kinds of tasks might you do + why?
    - To learn what specific tasks they do
  - When doing task X what technology/tools do you use? (Eg. a calendar application for scheduling events/employee shifts)
    - *If possible, would you mind showing us these tools/software and how you use them for such tasks?*
  - Can you describe your experience using those products? -> ask

- *How do you feel about the features of those products?*
    - To get her general opinion
  - *Are there any aspects of the product you find particularly useful or difficult?*
    - To see if there's any preferences/frustrations/likes/
  - *(Ask if applicable) Can you describe any ways you overcome or deal with such difficult aspects?*
    - To see if she has any workarounds
- **Wrap up (5 min)**
  - Do you have any last thoughts, comments, or opinions that we did not discuss during the interview?
  - And that wraps up the interview! Thank you again for being open to meeting with us today and helping us with our project. If you have any further questions or concerns, feel free to let us know.

## User Research Findings

By conducting these interviews and observation sessions, we were able to 1) gain a better understanding of our stakeholders' typical tasks and responsibilities, 2) obtain insights regarding their experience with library technologies used at their workplace, and 3) identify opportunities to improve existing technologies.

### Stakeholder 1: La Jolla/Riford Library

#### 1. Responsibilities

Upon our interview, we learned that our stakeholder's responsibilities extend beyond administrative tasks. Community outreach plays an important role in the day to day operations of our stakeholder such as creating new and continuing community programs, email correspondence with external partnerships, and evaluating community needs.

#### 2. Experience with 3 Main Technologies

In order to delve deeper into understanding our stakeholder's experience with library technologies, we asked to observe her interactions as it relates to her typical work week. There are three main subscription-based softwares that is vital: **Sharepoint**, **Polaris Leap**, and **Library Market**.

The most straightforward with the least amount of interactions among the three is **Sharepoint**, an efficient platform for data collection and monthly reporting on the branch's performance. On the other hand, **Polaris Leap** is the hub of the staff's daily operations and serves as the main operating system for all library staff. Polaris Leap allows staff to check-in and out of their shifts, maintain library records, and auto-generate a list of needed inventory.

*"[Polaris Leap] is the backbone to everything that we do for the public"*

However, our stakeholder mentions the difficulty when searching for library books with Polaris Leap due to its inefficient search system and non-user friendly interface. During our observations, for

example, when looking for a book on empathy for new mothers, a list of over a thousand books were generated with no visual aid or additional information. Users must go through various filters to reach their desired search. This, in comparison to the library's public search which had far more visual components and nuances to their results, highlighting a lack of keyword recognition and discoverability within the Polaris Leap's system.

Among the software platforms, our stakeholder felt most passionate about **Library Market**, an event calendar and organizer. Library Market allows staff to view comprehensive event details, create and/or approve pending events, and manage all programs hosted at the library. However, we noticed a high interaction cost, as user's required multiple unnecessary steps to complete their desired task. For instance, all events whether pending, approved, or finished are all displayed in the monthly calendar. Yet, there are no filters to sort these events by their status leading our stakeholder to manually search for pending events to approve. Additionally, there is no notification system when an event is awaiting approval as well a lack of indication when different staff make updates, leading to further cognitive effort and slower communication. Another pain point discovered was the lack of unified view for double bookings. When staff unintentionally creates an event that overlaps with an existing one, an error message appears, and when going back to fix it, all event information is deleted. This forces the staff member to redo the entire process from scratch.

### *Workarounds*

During the interview, we noticed that there were a few strategies that Dana used to workaround certain difficulties with specific system features. For **Polaris Leap**, she said she relies on her experience with the Library in order to know whether to use the public or private facing version of the library catalog when searching for materials. However, for newer staff this would not be as clear, which could lead to more effort required to find what they're looking for. With **Library Market**, Dana described a strategy for dealing with double booking, which involved opening a new window and editing the information from there instead of staying on the calendar with the error message, going back, and having to restart the entire reservation process. She also mentioned that due to the lack of a print feature for the monthly calendar view, she needs to keep a tab open on her computer to show the monthly view at all times. This is because she often gets phone calls that require her to add to the monthly events or answer questions based on the month's calendar.

### 3. Opportunities/Ideas

From our interview insights, we've identified a handful of opportunities for our team to explore possible digital solutions and ideas to improve the workflow at the La Jolla/Riford Library.

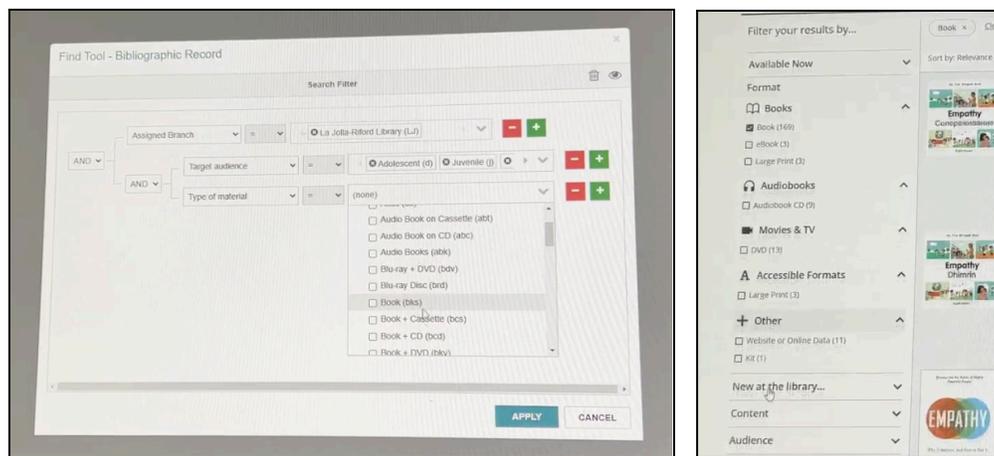
#### *Polaris Leap – Search Catalog and Filter*

Two opportunities for improvement on Polaris Leap include creating a more intuitive and user-friendly search/filter system and combining the discoverability of the library's public online catalog with the exactness of search results from the staff-view catalog. When searching a keyword on Polaris Leap, the current search/filter system outputs an overwhelming list of book results that lacks images and isn't as fine-tuned until the staffer chooses specific filter conditions.

*"[The system] is giving me a whole lot of everything just...all mixed up together."*

However, the user interface for filtering is unintuitive and confusing compared to the library's public online catalog, which has a simple and user-friendly filter column visible next to the results. Each has its own pros/cons, with Polaris Leap giving more exact searches, but having a complicated filtering process, versus the public catalog having a simple filter system, but giving a broad range of search results. Whichever system is used depends on what is being looked for and the level of specificity it requires. For the stakeholder, it would be beneficial to have a redesigned filter system that combines all of the functionalities of both systems in one place for staff to use. This would eliminate the need to decide between two different search systems.

*"The more specific it [the search] is, then this is the way to go [staff catalog]. If it's kind of generic, then the public is the way to go."*



*Polaris Leap Search Filter (left) vs SD Library Public Catalog Filter (right)*

### **Library Market – Calendar and Reservation System**

Library Market has several opportunities for improvement across different features. After the public makes reservations for events/rooms, staff need to view the pending reservations and manually make updates until they are approved. The calendar/reservation system does not notify staff when updates are made, so the stakeholder needs to continuously check the pending reservations to view the status. One opportunity to make managing pending reservations easier for the stakeholder would be automatic notifications for calendar reservation updates in order to reduce manual labor and streamline communication across staffers as different staff make updates to the reservations leading up to approval.

Another opportunity for improvement is the process of booking/reserving done by the stakeholder. When it comes to reserving rooms for programs, the calendar allows the stakeholder to input the set-up/breakdown time before/after the program actually takes place, but does not display those times on the calendar itself – it only shows the time for the program itself. This makes it very difficult for the stakeholder to book events since she has to manually scroll over all of the programs to find open slots. On top of this, the calendar also requires the stakeholder to scroll over the

programs just to view which room the program is taking place in. These are important details the stakeholder needs to know when booking/reserving rooms and programs that shouldn't have to require extra effort to view. It would be much easier to book events and avoid double booking if the calendar displayed these details without the stakeholder needing to scroll over each event.

*"On a day like this where we have all these programs but I'm trying to see if there's an hour of availability in one room, I have to hover over each one of these... It's frustrating."*

Yet another opportunity exists when the stakeholder makes a mistake by double booking a room on accident. Instead of having to restart the entire booking process, the calendar could be improved by allowing a way to autosave partial inputs from booking when the stakeholder goes back to change the booking details.

Additional opportunities for the calendar include filtering for pending/declined reservations, improved printing capabilities with customizable filters for monthly view, social media integration that allows for streamlined information transfer when the stakeholder wants to directly post events onto platforms like Facebook or Instagram, and a calendar day-view for easier event management.

*"Our programming is one of the main things we do, and being a community, meeting space. So having this be functional and user friendly, you know, is is key to our day to day"*

## **Stakeholder 2: UCSD Librarian Adele Barsh**

### 1. Responsibilities:

Upon our interview, we learned that Adele Barsh's responsibilities extend beyond traditional library services. As the Business and Entrepreneurship Librarian in the Academic Engagement and Learning Services department, she plays a crucial role in supporting students, faculty, and researchers at the Rady School of Management. Her daily tasks include assisting with market research, providing career counseling and ensuring faculty comply with vendor agreements to use licensed materials. She also manages library collections, oversees resource acquisition through Gobi, and ensures the availability of career development materials. Adele collaborates with interdisciplinary teams across the university and supports entrepreneurship initiatives, such as the I4X Innovation Program at the Design and Innovation Building.

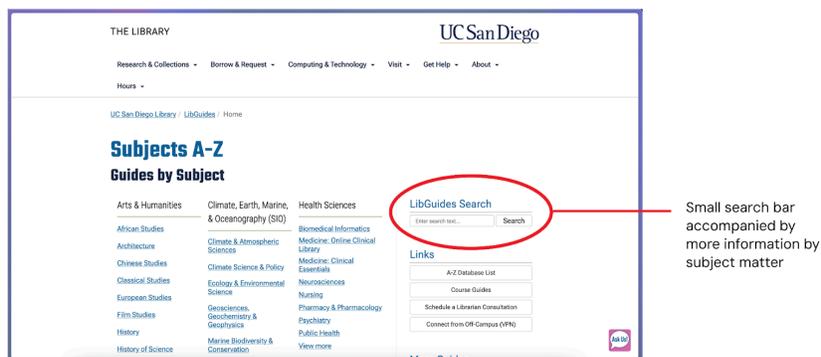
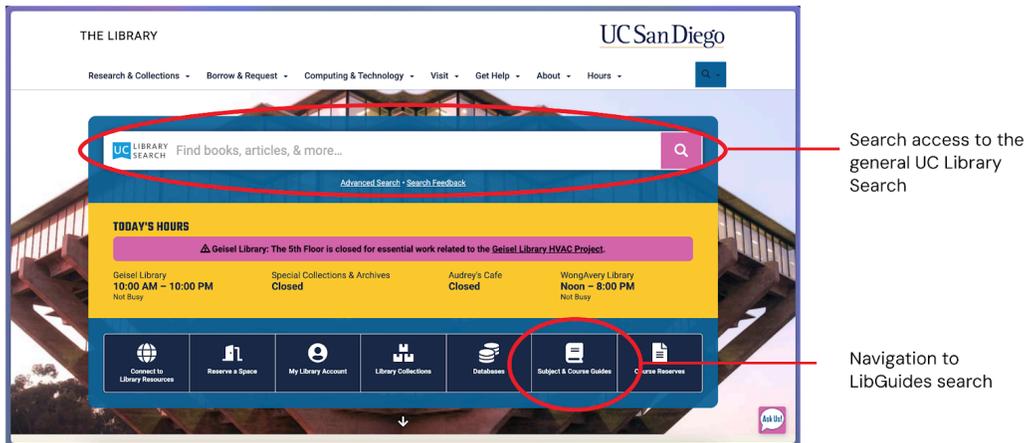
### 2. Experience with 3 Main Technologies:

Our goal when interviewing Adele was to understand the intersectionality in technologies utilized for daily operations within public and academic libraries. Since our stakeholder mentions strict rules regarding documenting these technologies, we extensively reviewed our interview transcript to identify three vital subscription-based softwares: **Confluence, LibGuides, and Acuity**. However, it is important to note our stakeholder utilizes various platforms in conjunction with one another depending on the task, creating a convoluted environment of external links.

Confluence is the hub of communication for all UCSD Library staff as it serves as an internal wiki to share important documents, meeting notes, and weekly news updates. Our stakeholder

shared how built-in external applications are implemented for task operations. For instance, project management tools such as Jira are used and integrated for organizing large projects within teams. An interesting point of contention we observed is how there is no one agreed upon platform for any task operation tools. Adele additionally highlights the steep learning curve she faced having to continuously adjust her work style based on each project's tools and requirements.

One of the key responsibilities of our stakeholder is to conduct research for both her field of specialization and interdisciplinary areas. Whether this includes reading, referring, or analyzing academic journals, efficient search tools is crucial. Currently, our stakeholders leverage two search engines: LibGuides and the general UC Library Search. LibGuides provides a more advanced search with results that show greater specificity in topic matter. LibGuides is additionally highly favored among our stakeholders and graduate students in comparison to the UC Library Search, which provides more general and less specialized results. However, LibGuides integration on the UCSD Library website lacks discoverability and accessibility. As shown in the figures below, to access LibGuide, users must click on "Subject and Course Guide" then navigate to the small search bar to access LibGuides database. Our stakeholder shares how she wishes our students knew about this resource, resulting in her efforts to market LibGuides in her partnership presentations.



Beyond research, our stakeholder juggles between a plethora of tasks such that her day to day operations vary between teaching, budgeting, mentoring, and or vendor relations. Time and project management is an imperative skill. Our interview moreover aimed to investigate which technologies are used to balance her workflow. Acuity served as an important scheduling and calendar management software, especially in regards to her collaboration with the Rady's School of Management. Nonetheless, our stakeholder utilizes 2 other [unnamed] calendars for daily operations and consolidates these various calendars into one master calendar on Microsoft Office. There appears to be a lack of a centralized task management system within the UCSD Library staff team. As a result, our stakeholder must spend extra time continuously manually curating her calendar to best stay organized. There also seems to be a high interaction cost as our stakeholder must traverse through various platforms to plan, organize, and manage her workflow.

### 3. Opportunities:

Furthermore, the interview with our second stakeholder revealed a couple opportunities to improve the UCSD library's digital systems. First and foremost, the lack of a centralized task management system for the UCSD Library staff team hinders their ability to work effectively and efficiently. Adele questions the library's current approach to task management and expresses the frustration of the collaboration tools.

*"How do we navigate between what's individualistic and what helps people be more consistent in the interface?"*

She acknowledges that given the variety of systems they use, the library staff will inherently have their own preferences and the processes to complete work tasks will vary from one another. However, she emphasizes the importance of a consistent system that can manage the tasks while still incorporating the necessary built-in external applications. Therefore, an opportunity to resolve this issue would be reducing the number of overlapping tools to create a more streamlined experience. For instance, possibly incorporating Acuity into Confluence to manage meeting coordination would reduce the need to continuously switch between different platforms. Another idea is to integrate or automate calendar syncing between Acuity and Microsoft Office to minimize manual consolidation. Since Jira currently is integrated into Confluence to help manage tasks, consolidating all the platforms into one centralized platform would reduce cognitive workload while providing a space for cohesive planning and scheduling of library operations.

Beyond task management, another opportunity would be to improve the library's research access in a way that involves an integrated search system. One way we could achieve this would be through combining general and subject-specific research tools. This could potentially help users better navigate different research resources efficiently and provide better user guidance. There are also opportunities to enhance the discoverability and accessibility of LibGuide in order to improve the visibility and ease of access for students and researchers. By addressing these areas in the UCSD library's digital system, we hope it could enhance their workflow efficiency, user experience, and research accessibility.

