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Collaborating with a team of student volunteers on UX projects or... How to kill two birds with one stone

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I was a UX team of one. Like many libraries whose UX maturity is at the intermediate level, UC San Diego Library had a dedicated UX librarian (me), with a small budget dedicated to UX studies. Our digital space – which consisted of the library's public website, LibGuides, discovery system, digital library and many other websites – had pressing issues to address but insufficient staff to do so. In this article I will discuss how I increased our library's UX maturity by collaborating with a group of UX students on a project to improve our library's digital space.

A few years ago, I did some 'UX Café'-style hallway studies, offering free coffee and snacks in exchange for ten minutes of talking with me, the UX librarian. After the studies were done, I hung the UX Café poster in the front of my cubicle. One day, Shan, a cognitive science student who was employed by the Library's IT department, happened to walk by my cubicle and saw the poster. Shan, who had just created Fi@UCSD, a student-run UX undergraduate agency, was eagerly seeking UX projects to work on. Fi@UCSD aspired to 'assist clients who need solutions to problems, use design-thinking practices to create simple and transparent solutions, and showcase solutions to bring them to reality.' After chatting for a few minutes, Shan proposed to collaborate on a UX project. Even though I had been in web management for more than twenty years, UX was relatively new to me at the time. I had gained knowledge in the field by attending conferences and workshops such as UXLibs, taking the Google UX certificate, and reading articles from usability.gov, Nielsen Group and other online resources. But while I had learned a lot of UX methodologies, I had yet to apply the skills through a complete UX design process cycle. Collaborating with a group of formally trained UX students seemed like a good learning opportunity. In addition, I often found that librarians were more inclined to hear feedback and recommendations directly from student users than from a UX librarian. Fi@UCSD recruited an interdisciplinary group of

ten undergraduate students who were interested in UX. Working with the group would provide me with some 'free' labour that I desperately needed. So I agreed to collaborate.

The project and collaboration

The project I proposed to collaborate on was to analyse and improve the online help environment on the UC San Diego Library website.

As part of the Geisel Library Renovation Initiative (GLRI) initiative, the UC San Diego Library aimed to develop a service delivery model that 'empowers users to actively engage with library services, and deliver an integrated user experience across services.' In early discussions, the Library's Service Delivery Team focused on the development of a service model in the physical space. As users seek help in both the physical and online spaces, we had a good opportunity to develop an integrated physical and virtual help service. The UC San Diego Library is one of the world's most prestigious and powerful research resources. The Library website is vast and seemingly endless, which creates opportunities for research support but


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also causes trouble for users who do not know what the site or the Library offers. Help functionality is a minimal priority on the information architecture of the site, bouncing the user away from contacting library professionals who could provide expert assistance. To start thinking about the virtual components of such a service model, I proposed to do an environmental scan of 'help' services on the Library's website and investigate users' help-seeking behaviours.

Working with me, Fi@UCSD created a project plan. The following is their 'Design Brief' (with their proposed timeline – more on that later) that provided structure to the process of the project.

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Students' Project Brief

Goals of the Project

In this project, we'll be answering the questions:

- What methods of help (chat, email, text, in-person desk and consultation, workshops, online tutorials, and knowledgebase) do users prefer?
- When and where will they likely use these help channels?
- Do they use the existing help methods online – Ask a Librarian (on website and in Proquest), LibGuides, make an appointment with a librarian, etc. If not, why not?
- How should we display the help online? Is a help panel helpful to users?
- How much more successful will users be in finding librarian/Library help utilizing the newer feature addition vs. the original placement?

For understanding the Library's organizational goals:

- What does the Library hope to accomplish using various help methods online?
- Do we have a preference for how users reach us online?

Structure

1. **Ground Work – 1 week**

   The project will start with a review of previous UX studies and current help operations in the Library**.**

   - *Literature and previous UX studies review*: Review and summarize findings.

2. **Interviews – 2 weeks**

   The project team will review the goals, and will require asking users and Library staff about their experience with using the site, respectively.

   - *User interviews*: Randomly reaching out to students, faculty and researchers to find opinions about the site and find success rate of finding help.
     - » Best places to perform 'guerrilla usability testing' on student users is right inside the library, at respective student areas.
     - » Interview faculty and researchers with scheduled appointments.
   - *Stakeholder interviews*: Reaching out to Library staff and administration on understanding business requirements (e.g. organizational goals, layout of site, prioritizing information).
   - *Key findings*: Produce a summary of key findings.

3. **Competitive Analysis – 1 week**

   After user interviews, the team will research other websites, viewing what features are made available to offer help to other users. This will offer a vision for how to create a better help method.

   - *Library sites*: Other university/research libraries will serve as a direct competitor to the UCSD Library site, offering insight as to 'how they do it.'
   - *Help methods on other sites*: Newer, dynamic web pages include help methods that allow the user to interact with a module, e.g. https://www.intercom.com
   - *Analysis and presentation*: The analysis of existing help features will be done through a heuristic evaluation with notes regarding visual guidelines. The presentation will include the judgment of all of the viewed sites.

4. **User Empathy and Flows – 1 week**

   Verifying the user problem involves taking struggles from user interviewing and qualitatively describing the situation in which they would need assistance. A solution will be mapped out with user flows to show how efficiently a solution should be reached.

   - *User personas*: Serves as practice to understanding the user and stakeholder. Used to display to the entire team on how to portray

users and their struggle in finding help through the website.

- *User flows*: Identify how users flow through the user flow diagrams. Used to determine different methods and their minimalism + efficiency in outputting a higher success rate.
- *Information architecture*: Displaying the user flows in a technical view. Used to determine essential components for navigation and business needs.

5. Sketching – 1 week

A collaborative process involves the entire team working together to develop a framework and select methodologies to achieve design solutions. This team element is essential to quickly generating feedback and a solid design process.

- *Team sketching*: Team collaborates in creating paper prototypes, utilizing visual design guidelines.
- *Wireframing*: Team collaborates via Figma in creating low-fidelity prototypes.
- *Usability testing*: Both activities involve reaching out to users from need-finding to determine a safe and viable method of displaying help information on the Library website. Iterative process occurs at the end of testing.

6. Designing and Testing – 2 weeks

Second collaborative process, involving the finalization of graphics using user feedback and design vision of Fi@UCSD members. This team element is essential to producing a deliverable to the Library and to users for an interactive usability testing session.

- *Prototyping*: Team collaborates in creating more high-fidelity prototypes via Figma.
- *Usability testing*: Prototyping involves testing assumptions: users will be shown the interactive prototypes and determine success rate + time in completing help task vs. completing the task on original website design.
- *Iterative design*: User testing results will generate qualitative + quantitative data to encourage changes in the design of help module.

7. **Presentation – June 2019**

   Final presentation will show to the Library the research conducted on existing problems and propose design changes to add modular content to the current Library website.

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Challenges

I was impressed by the structure and professionalism of the Design Brief, but the timeline was too aggressive. Later I realized that, while many of the Fi@UCSD students had taken college-credit-earning UX courses, their learning was mostly 'book knowledge' with little real-world experience. The proposed eight-week project ended up taking seven months. As the project progressed, we found that the timeline was too optimistic for the sometimes political and bureaucratic library environment. For instance, they estimated two weeks for both user interviews and stakeholder interviews, but underestimated the time it would take to recruit and schedule interviews, conduct data analysis and come up with findings and recommendations. They also did not plan enough time for 'discovery' and background work, to understand the Library website environment. My proposed goal of the project was to study the Library's online help environment, but they insisted on studying the usability of the Library's public website, probably because of the obvious usability issues they encountered when using the website. The reality was that even though we were aware of the usability issues, we did not have the mandate nor the political clout to make changes. As with many new UX professionals, the Fi@UCSD team rushed into design before gaining a good understanding of the problems, defining and scoping the project. However, they excelled in tasks associated with the design phase, such as competitive analysis, user personas, user flows, sketching and co-design. Later my unit hired seven UX design student assistants, and I observed the same characteristics of the students: they are good at design, but weak at project planning, scoping and user studies. This is probably because the school curriculum provides good training in design – design tools such as Figma, Miro and the theoretical framework of the UX design process – but students lack the experience of running a UX project through the cycle.

So I found myself in the position of a mentor and teacher, much more so than I had expected when I took on the students. I coached them on conducting user studies, designing surveys, data analysis methods and forming conclusions and

recommendations. I even taught them how to present findings. At the conclusion of the project, the Fi@UCSD team gave me a text-heavy report of 48 pages and presentation slides with many unnecessary details, which I knew would deter my busy colleagues. I offered critiques of the report, recommending they revise it based on my outline and use graphics to break up dense text, and sent them a sample user study report and slide deck for inspiration. I also participated in their group meetings once in a while. The mentorship was time consuming, but the results were amazing. The students quickly learned the skills. Their revised report and slide deck were focused, simple, professional and to the point. They explained the project without unnecessary details such as persona development and dense statistical data.

Benefits

The impact of the collaboration cannot be underestimated. This was the first time that the UC San Diego Library had invited a group of UX students to work to improve library services and present their work to the Library. Their observations, research and recommendations motivated the Library to re-evaluate its online help environment, and hearing directly from students helped to increase librarian buy-in for many of the digital first initiatives down the road. As a direct result of the project, the Library decided to develop a central online help hub which incorporated the various help channels, putting the self-service model of LibAnswers FAQs as the first student contact. It also helped the Library to understand the impact of UX/user experience design. An Associate University Librarian of User Experience and Learning was hired, and a Digital Experience Unit was created. All in all, the collaboration with the UX undergraduate group helped improve UX maturity in the Library.

The students also benefited a lot from the experience. While Shan, Fi@UCSD's director, has expertise in UX, some of his group members were just starting to learn. It was fascinating to observe how Shan grew as a project manager and director of Fi@UCSD, trying various methods to promote the agency via social media, recruiting and instructing new students. By the end of the seven-month-long project, many of the students had gained a much better understanding of doing UX in a real-world situation, where politics, bureaucracy and time constraints played a part. They learned how to develop concise reports and presentations that stakeholders will listen to and read; they practiced developing personas, conducting interviews, surveys, comparative studies, co-design and data analysis, and fine-tuning conclu-

sions and recommendations; and lastly had an opportunity to present to a group of 25 librarians/clients. This was Fi@UCSD's first project, and its success helped them land a UX project with the city of San Diego, to redesign their website. For some students, this was their first exposure to UX. The experience inspired them to begin thinking of a career in the field, and the library project was a great experience to include on their résumés.

The collaboration was beneficial to me as well. Even though I was supposed to be the mentor and teacher, I learned a lot from the team. While the students were inexperienced and made mistakes, the methodologies they used throughout the project gave me a first-hand knowledge of how they could be used in the UX design process cycle. I learned Miro and Figma, story mapping, co-design, user flow analysis, etc. Before I began the project many of the UX terminologies were new to me, but now I can lead a UX project with real confidence, articulating exactly what needs to happen in each stage and the time it might take – in other words, a solid UX project management skill set. This was professional development on steroids. I also benefited a great deal from the energy, fun and creativity of the students, who often suggested ideas I would never have come up with. I was esteemed by the students as a mentor and teacher, being asked to write a recommendation letter for one student's graduate school application, and to serve as a job application reference for another. Both students were successful in their applications and it was a great pleasure to be able to contribute to this.

When you are a UX team of one, collaborating with students on UX projects will help increase your library's UX maturity and let you tap into the skills and energy of students, all while helping you develop your own UX skills. This is a perfect formula for UX success.