UC Berkeley

LAUC-B and Library Staff Research

Title

Planning an Entry Sequence with Service Design: A Case Study

Permalink

https://escholarship.org/uc/item/7kr0w7hx

Authors

Harrington, Sarah R Churchill, Veronica

Publication Date

2020-11-02

Peer reviewed

Planning an Entry Sequence with Service Design: A Case Study

Sarah Harrington^a* & Veronica Churchill^{b**}

^aLibrary, University of California, Berkeley, USA

^bLibrary, Holy Names University, Oakland, USA

*sarah.steinman@gmail.com

**vbchurchill@gmail.com

Note: Sarah Harrington is now a Research Librarian at the California State Library.

Acknowledgements

This project was made possible through the thoughtful guidance, mentorship and encouragement provided by Nicole Brown, who served as our client and liaison with library leadership. We also thank Beck Tench for continuous edits and suggestions throughout the duration of our project. They both helped us tremendously when we were forced to make changes to the plan due to COVID-19.

ORCID

Sarah Harrington http://orcid.org/0000-0002-1357-9459

Veronica Churchill http://orcid.org/0000-0002-9901-7085

Planning an Entry Sequence with Service Design: A Case Study

How might we plan user-friendly entrances for the library? For this project, we learned about and applied service design tools to an entry experience at an academic library. Service design means working to understand users and applying this understanding to the creation or refinement of services. After learning about service design, we created six user profiles and walked them through different entry scenarios to examine each step. Then we created easy-to-understand graphics to provide library leadership with planning materials.

Keywords: Service design; access services; space and environment; user experience; design thinking; academic libraries

Introduction

Service design is an up and coming trend in the library field, aimed at meeting users where they are to create and refine library services. Libraries that do not embrace service design risk alienating users when they design services that are not user-oriented. This paper describes an early attempt using service design at the UC Berkeley Libraries, where administrators are supportive of embracing service design and seeking ways to apply it across the library system.

Moffitt Library at UC Berkeley is in its planning stages to launch its new Center for Connected Learning. This place will be a "'collider space' where students flow between multimedia classrooms, collaborative project spaces, hands-on studios, and peer-to-peer and expert consultation" (UC Berkeley Library Giving, n.d.). In anticipation of the launch, it became apparent that there was a need for a smoother entry sequence at Moffitt Library to help make the new Center for Connected Learning an inclusive space.

As MLIS students, we saw an opportunity to apply the knowledge and skills we gained in academic courses to a real-world information challenge. At the University of Washington iSchool, MLIS students must complete a Capstone Project before graduating from the program. In a Capstone Project, the client organization identifies a problem or opportunity, and the Capstone team works to find solutions to meet the client's needs. As classmates in the 2020 MLIS cohort, we partnered together to address the entry sequence at UC Berkeley's Moffitt Library.

Having learned about service design methodology through our coursework and professional experiences, we decided to explore service design tools and principles to better understand the entry sequence at Moffitt. In our case, we wanted to understand the entry sequence from a user's perspective, so we selected three service design tools to help us gain a better understanding of the entryway. In the UC Berkeley Library system, one of the goals outlined in the strategic plan is to "Grow as a learning organization" (Strategic Plan, n.d.). The Library is dedicated to continuous improvement, and we were supported to inquire and

experiment in the spirit of service design. We partnered with the Head of Instruction at UC Berkeley, who served as our client for the project. We met with her regularly to provide updates and receive guidance, and she served as our liaison with library leadership during the course of our Capstone Project.

This article details our experimentation with service design tools over the course of the past year. First, the literature review introduces the concepts of service design and connects our service design project to similar work being done by librarians at other institutions. We were pleased to see the multiple ways in which service design methods are being applied to library spaces to reevaluate use and need. Next, we explain the details of our project, discussing our initial goals, the impacts of COVID-19, the service design process, and our final deliverables.

We end by examining the implications of our work at Moffitt Library and in the larger context of applying service design principles to library spaces. In the discussion, we explain the benefits of service design and assert that libraries can become more inclusive by ensuring that services meet the needs of a diverse population. Lastly, we share our lessons learned and provide recommendations to others who may be interested in implementing a service design project in their library.

Literature Review

How Service Design Came to Libraries

The concept of design thinking gained widespread popularity after IDEO CEO Tim Brown published the bestselling book *Change by Design* in 2009 (Gonen, 2019). IDEO is a design company that seeks to put humans at the center of design processes. It has become a cornerstone of the design thinking landscape, and offers a toolkit and certification opportunities for those wanting to learn about design thinking. In the last ten years, design thinking has become a common lexicon for organizations.

Design thinking itself grew out of the work of Frederick Taylor and Henry Dreyfuss in the early and mid-20th century, respectively. Taylor developed theories to increase workforce efficiency in the industrial setting in the early 1900's, and many credit Taylor for silos within today's organizations (Salvatore, 1982). Dreyfuss set the stage for designing products with the user in mind (Books of the Week, 1955). His work focused on the concept that a product or service is only as valuable as the effect on its user.

Service design takes the concept of design thinking and the theories of Taylor and Dreyfuss and applies it to a service environment. It is an approach that focuses on the user when creating or refining services. Service design is, "a holistic, co-creative, and user-centered approach to understanding customer behavior for the creation or refinement of services" (Marquez & Downey, 2016, p. 24). While user-centered methods are common with electronic interfaces, service design is relatively new to the library environment (Marquez & Downey, 2016, pp.25-26). As with products, services leave a positive or negative impression on users.

Libraries can refine services so that library users come away from the experience feeling satisfied.

Libraries offer a multitude of services, including the physical space of the library building. Spencer and Watstein (2017), pointed out that, "The concept of space as service has become an intense and sustained focus in academic libraries" (p. 391). This idea of space as a service is commonplace; libraries often provide space for individual study, group work, computer usage, and more. Service design addresses the holistic experience of a service, including everything a patron encounters, from the heaviness of the front door to the experience of finding a book on the shelf.

Furthermore, in recent years, many academic libraries are identifying connections between space and inclusion, asserting that spaces are socially constructed by their occupants and bear "physical evidence of those who have exerted power over them in the past" (Brook, Ellenwood, & Lazzaro, 2016, p. 255). In light of the tumultuous events of the last several years, libraries are thinking about the concepts of critical librarianship and critical design to eliminate barriers to access and provide a safe space for the communities they serve (Robinson, 2019). These conversations are the start of a broader conversation about equity and inclusion in libraries, and service design tools can help make the invisible visible.

The library entryway and initial interactions with staff feed into patron perceptions about whether or not they belong in the library. Because patron perceptions of belonging can be shaped at the entryway, it is especially important to examine the entrance of a library space using service design tools and principles. Our social justice values served as a guiding force for our project and shaped our work of developing an inclusive entry sequence at Moffitt Library.

Principles of Service Design

Service design examines services critically to make the experience positive for the user. Marquez and Downey (2016) assert that patrons "see the library as a holistic experience.... They don't see the imposed barriers from the organizational and management structure" (p.7). For example, users are not interested in understanding the distinctions between IT, cataloging, reference, and circulation. Those silos are part of the organizational structure; they can increase efficiency, but they can also create blind spots in the process. In the case of a library, silos can result in losing sight of user needs. Users just want a smooth experience of finding a call number online, locating the book on the shelf, and checking out the item. Organizational silos, from the user perspective, are not part of this experience.

Service design allows for experimentation without the cost of implementation (Marquez & Downey, 2016). At the same time, it is low stakes, anything goes, and it is normal - almost required - that the first idea not work. The pressure of finding the perfect solution is eliminated because service design is about trying something new, taking risks, and having fun with experimentation. It is not uncommon to inherit or adopt procedures without much thought to the impact on users or the staff who have to implement them. Service design is a way to consider a challenge from multiple perspectives with the opportunity to meet the needs of many.

Service Design Tools

It is exciting to see the many ways in which service design is being used to evaluate and examine library services to better serve library users. In reviewing the literature, we found three library service design projects that demonstrate sound service design methodologies. We were thrilled to find that our work aligns with the work of others and contributes to the growing practice of using service design to improve library services. There is a wide range of service design tools available to use, and we will highlight three projects to demonstrate a few service design tools that can help meet different library challenges.

In Young et al. (2020), the service design team focused on service blueprinting for a four-screen computer monitor display wall in a high traffic area of the library. It was a two-year process and they chose service blueprinting because "blueprinting is concerned with empathy, user-centeredness, and the broader service ecosystem" (Young et al., 2020, p. 190). As we will discuss later in more detail, blueprinting was an activity we incorporated into our project for the same reasons. Blueprinting helps to develop a better understanding of a service from someone else's perspective and helps identify gaps in service that may have been missed previously. The fact that the team at Montana State University undertook a two-year blueprinting project underscores the value and depth of this tool and the need to give projects time to develop and undergo examination.

In another library service design project, a team conducted a user survey to better understand user needs in anticipation of a library renovation. The service design team used the results to prioritize certain library spaces for renovations and identified several previously-unknown user needs. In their review of the literature, they found users tended to favor the idea of library cafes, but among their own survey respondents, there were very mixed reactions and a few strong reactions against the idea (Ojennus and Watts, 2017). The team at Whitworth University demonstrated the value of surveying their own users to better understand their specific needs and through the survey developed six spatial focus areas, which included study habits, technology use, and space needs. The team concluded, "our study confirmed for us the importance of balancing trends in the literature with direct investigation of our patrons." They noted that "while the literature was invaluable in identifying the broad areas that needed to be considered in assessing our space needs, it was also necessary to employ the experience and intuition of the library faculty and the university community as a whole to develop the research and identify the best ways to meet our users' needs" (Ojennus and Watts, 2017, p. 333). This project shows the importance of including the target library's user population when making user-centered decisions.

One of the most comprehensive library service design projects we found while reviewing the literature was conducted by the team at the University of Toronto, which aimed to evaluate and redesign in-person reference services in a 14-story university library. The library service design team wholeheartedly incorporated service design principles into their work through a variety of methodologies. They examined usage stats, conducted a cost analysis, performed

journey mapping, assembled a focus group, experimented with staffing assignments, conducted exit surveys, prototyped a new reference layout, and more (Everall and Logan, 2017). The scope of their work, and their service design framework, is truly impressive. They reflected that "our intention was always to do *just enough* research to allow us to produce a prototype which we could refine after the initial implementation" (Everall and Logan, 2017, p. 184). The team valued staff input as much as user feedback, and the project moved forward successfully by keeping the primary users - students, staff, and faculty, at the center of the conversation.

These examples are a small glimpse of the many ways in which service design principles and practices are being implemented by libraries to refine and examine their services. As we will demonstrate, we did our best to incorporate several service design methodologies, place users at the center of our work, and move forward the conversation around the benefits of using service design in libraries.

Goals & Outcomes

We knew we wanted to apply service design to the entry sequence at the Center for Connected Learning, but we needed to figure out what this meant and how to do it. We both have experience in Access Services and understand that the entry sequence sets the stage for all user interactions in a library. Once we decided on addressing the entry sequence challenge, we developed a guiding question: *How might we plan user-friendly entrances for the library?* We developed three goals for our project in response to this question:

GOAL 1: Gain expertise in service design methods and tools.

GOAL 2: Apply expertise by scoping, exploring, and carrying out at least one service design project to inform models for the Center for Connected Learning.

GOAL 3: Educate colleagues library-wide on service design by hosting at least one training session.

By the end of February, we completed our service design course and created a plan for the rest of our project. Unfortunately, just two weeks later, Moffitt Library closed due to COVID-19. We were fortunate to be able to adjust our project and continue working remotely. In the best of situations, service design is a process guided by observations and user feedback. Instead, we were able to fall back upon past observations of user behavior to guide our project.

Methods

Design, Plan, Implement

We designed our project plan in Winter 2019 and applied project management techniques to keep our work on track. We first created a timeline outlining major project milestones and deliverables. Then, we developed a work plan with specific tasks, task assignment details, and due dates. Our work plan fed into a Gantt chart, which outlined the steps of our project in more

detail from January to June 2020. A Gantt chart is a type of bar chart that outlines a project's schedule and displays concurrent project activities. We finished mapping out our plan by the end of January 2020.

GA	NTT CHART															
PROJEC	T TITLE	Applying Service	ce Design Tool:	s for Access Se	rvices		CO	MPA	ANY	NAN	ИE			UC E	Berk	celey
PROJEC	T MANAGER	Sarah Harringt	on & Veronica	Churchill			DA	TE						1/13	3/20)
NUMBER	TASK TITLE	TASK OWNER	START DATE	DUE DATE	DURATION	PCT OF TASK COMPLETE	_	Janu	_	12-1: TH	_	М	_	lanua ary 2	0-24	_
0	Project Conception and Initiation							•	**			IWI	•			•
0.0	Project Charter	SH & VC	12/3/19	12/11/19	8	100%	П									
0.1	Project Charter Revisions	SH & VC	12/11/19	12/13/19	2	100%										
1	Design Stage															
1.1	Complete Library Juice Academy service design course	SH & VC	2/3/20	2/28/20	25	100%	Г									
1.2	Read "Library Service Design: A LITA Guide to Holistic Assessment, Insight, and Improvement"	SH & VC	1/12/20	2/28/20	46	100%										
1.3	Design Project	SH & VC	2/28/20	3/8/20	10	100%										
1.3.1	Determine what informatuon will be most useful	SH & VC	2/28/20	3/8/20	10	100%										
1.3.2	Determine what data collection methods would be appropriate	SH & VC	2/28/20	3/8/20	10	0%										
1.3.3	Develop a work plan to carry out the design	SH & VC	2/28/20	3/8/20	10	100%										
2	Understanding/Thinking Stage															
2.1	Review IRB exemption requirements when designing project	SH & VC	3/8/20	5/7/20	59	100%										

Figure 1

To meet our first goal, gaining expertise in service design, we attended the February 2020 session of the "Working with Library Design Tools" course, taught by Joe Marquez and offered through the Library Juice Academy. We also read the book *Library Service Design: A LITA Guide to Holistic Assessment, Insight, and Improvement* by Annie Downey and Joe J. Marquez. The course and book served as the foundation for building our service design expertise. For our project, we focused on three tools: user profiles, blueprints, and customer journey maps.

At their core, user profiles are composites of service users (Marquez & Downey, 2016, pp. 65-66). Under ideal circumstances, user profiles are created after observing or interviewing users. Since we could not observe or interview library users at Moffitt Library, we drew from our knowledge of and past interactions with library users. We thought about what brings users to the library, considered technology and study preferences, and reflected on access challenges. We examined and identified common characteristics of library users to create fictional prototypes of students, faculty, library staff, and community members who use Moffitt Library. User profiles can be used early in the service design process to better understand user motivations and behaviors. They can help define key traits and point out specific needs for certain users. Once we outlined user traits, we used Google Slides and free stock photos to create individual snapshots of each user group. We created a total of six user profiles: an undergraduate student, a graduate student instructor, a faculty member, a library staff member, an instruction librarian, and a

community member.

Next, we applied our second service design tool, blueprints. Blueprints allow us to examine an action from its concrete steps to identify positive and negative components of each step. Downey and Marquez define blueprints as, "a visual record of how a service is performed and a method for making the intangible tangible" (Marquez & Downey, 2016, p. 95). We decided to apply our user profiles to the blueprint tool to paint a deeper picture of the entry sequence. First, we broke down entry scenarios into a series of steps and then "walked" our fictional users through the scenarios. For each step, we used a blueprint template to define key components. The components were:

- Touchpoints the location where a step took place
- Actors the people involved in the step
- Stakeholders the people who are invested in the step
- System requirements the technology required for the step
- Important background information
- Measurable data such as gate counts or circulation statistics
- Pinch points that the user might experience or unpleasant feelings about a service
- Researcher notes and observations

This process allowed us to examine each step closely and identify the participants in each situation, the possible pinch points they might face, and any other issues that might develop when entering Moffitt Library. As with user profiles, we would have preferred to observe and interview users during the blueprint process, but instead we relied on our past experiences with users. Drawing from our six user profiles, we created a total of seven entry sequence scenarios (we created both a positive and negative scenario for the undergraduate persona). We used a color-coordinated Google Sheet to create each blueprint.

For our last tool, we created customer journey maps. Customer journey maps are similar to blueprints but with a visual component. Downey and Marquez define them as "visual representations of the steps a user takes to perform a task or use a service," and assert that customer journey maps help library workers "understand the entire process users must go through to accomplish something" (Marquez & Downey, 2016, p. 72). Knowing that dense Google Sheets might not appeal to our audience from a visual point of view, we decided to convert all seven of our blueprints into easily comprehensible infographics. We included photos and descriptions of users, created icons for each component of the entry sequence, and highlighted certain notes. For this tool, we created a template in Piktochart using the branding scheme of our client and then modified the template to reflect each specific user profile and blueprint scenario.

Results

Goals Revisited

As we shared earlier, we had three goals for this project:

- **GOAL 1:** Gain expertise in service design methods and tools.
- GOAL 2: Apply expertise by scoping, exploring, and carrying out at least one service

- design project to inform models for the Center for Connected Learning.
- **GOAL 3:** Educate colleagues library-wide on service design by hosting at least one training session.

By the end of our project, we met goals one and two, but goal three changed in response to COVID-19. Rather than educating colleagues library-wide, we educated the library leadership team about our process and our findings. The UC Berkeley Libraries formed a Service Design Team, which will carry on the work of educating the library at large. The Service Design Kit can be utilized by the Service Design Team and the library leadership team to help guide further service design work. The tools we created can be reused, edited, and reimagined during the next stage of the planning process for the Center for Connected Learning.

For our final deliverables, we created a Service Design Kit and delivered a presentation to library leadership to explain our process and present our findings.

Service Design Kit

We presented the library leadership team with a "Service Design Kit," a shared Google Drive folder complete with our work, blank templates, and resources. The kit contains five sections: 1) About this Kit, 2) User Profiles, 3) Blueprints, 4) Customer Journey Maps, and 5) Available Resources.

About this Kit

The kit begins with a simple Google document, which provides background information and context for the project. We included a "Kit Contents" section to briefly describe each tool included in the kit.

Planning an Entry Sequence with Service Design

Sarah Harrington & Veronica Churchill 2019-2020

What is this kit?

This Service Design Kit is the final deliverable for Sarah Harrington and Veronica Churchill's Capstone project for the University of Washington Information School. Over the course of a year, we learned about service design and applied three service design tools to the entry sequence at Moffitt Library. We hope they will be useful as you move forward with the renovation of the new Center for Connected Learning. To see our one-minute video and poster, check out the University of Washington Information School's Capstone website: Planning an Entry Sequence with Service Design

Figure 2

User Profiles

UC Berkeley's Strategic Plan for Equity, Inclusion, and Diversity states as a goal to "[c]reate a critical mass of talented students [...] that will fully represent California's excellence and diversity" (Diversity Data Dashboard, n.d.). Like many four year universities around the nation, UC Berkeley is still working towards breaking down barriers to inclusion. At present, UC Berkeley's student, staff, and faculty populations do not reflect the diversity of the state of California. There is much work to be done to advance this goal, both inside UC Berkeley and beyond the campus gates. Besides the critical work of the admissions office, the university system itself must offer services that are relevant to a broad population.

So how might we design library services and spaces that appeal to a broad audience? To ensure that our services meet the needs of a diverse population, we made an effort to diversify our user profiles. We developed six user profiles in total, reflecting differing backgrounds, living arrangements, and positions of power within the university.

We decided that our undergraduate student should be a first generation college student in the hopes of seeing the service experience through his eyes. For library staff interested in implementing a service design project, Darren Ilett's *A Critical Review of LIS Literature on First-Generation Students* provides insight into library and information science (LIS) research challenges. Although Ilett's focus is on first-generation students, his examination of LIS research deficiencies raises important questions about the misrepresentation of certain library user groups. Service design principles and tools can be a way to address misrepresentations of library users because it requires a clear understanding of a library's users, one that goes beyond superficial assumptions.

Similarly, we wanted to highlight the accessibility of the entryway. There is a steep hill leading up to Moffitt Library, so we included a user with arthritic knees in order to better understand and document his use of a cane when entering the library. The Americans with Disabilities Act was signed into law in 1990, just thirty years prior to the writing of this paper. Meanwhile, many libraries were built prior to the Act and need to take measures to come up to code. In older buildings, some accessibility modifications occurred haphazardly, like a wheelchair accessible ramp far away from the historical grand entrance of the building. While we understand the value of preserving historical buildings, we encourage libraries to think critically about the message they may be inadvertently sending to users when they visit the building. If users cannot even find the spot where they can enter the building, how does that encourage a sense of welcome? Service design tools can help shed light on accessibility issues present in library services.

We created six user profiles in total and bundled them together into a User Profiles Kit. We used Google Slides and created one slide per fictional user, with an introduction slide that explains how to use them. We wanted the library leadership team to be able to create additional user profiles, so we included an editable and non-editable version of the user profiles. Our experiences in Access Services informed our decisions about what characteristics to include for each prototypical user. We thought about Moffitt's user population, and how different users may experience the services available at Moffitt, as well as the Moffitt spaces and entryways.

As mentioned earlier, we created these personas to better understand the motivations and needs of Moffitt's user population. Creating these personas helped us think through the entry sequence while in the mindframe of a real user. Since we were not able to interview or observe users due to COVID closures, these personas are based on past observations and experiences with users.

If a library team wants to check that they are meeting the needs of a particular group, we recommend creating a fictional user who can run through the motions before trying out a service in real life. The fictional users should be a composite of actual users, not a projection from library staff, or worse, a creation based on stereotypes. There are a number of ways to get to know library users, including interviews, observations, focus groups and surveys. After gaining a better understanding of the target population, the library team can then create one or more user profiles to reflect the goals of the working group.



Photo by <u>Warren Wong</u> on <u>Unsplash</u> https://unsplash.com/photos/VVEwJJRRHgk

Paul Conway

Undergraduate - Law & Economics major 1st Generation

- From Northern California
- Aspires to become a lawyer
- Uses the library to study and meet up with friends
- Lives on campus

Figure 3



Photo from WOCintech on Flickr. https://www.flickr.com/photos/wocintechchat/25798197945/

Natalie Blair

Graduate Student/GSI - Public Health New to UC Berkeley

- Completed her undergraduate degree in NYC
- Motivated to be a top student and GSI
- Did not feel comfortable in her undergraduate library
- · Lives off campus

Figure 4

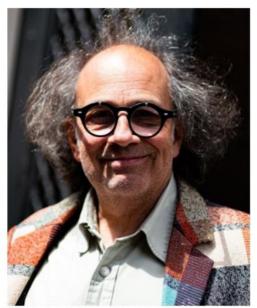


Photo by <u>Angelo Abear on Unsplash</u> https://unsplash.com/photos/I1AXPSU_W9M

Emerson Charles

Faculty, Nobel Laureate 20 Years at UC Berkeley

- Conducts classes at Moffitt Library
- · Likes to bend the rules or follow his own
- Encourages students to use library resources
- Thinks library policies don't apply to faculty members

Figure 5



Photo from WOCintech on Flickr. https://www.flickr.com/photos/wocintechchat/25677180942/

Peggy Lo

Library Staff 8 years at UC Berkeley

- Former student library employee
- Unsure if MLIS degree is in her future
- Works inside Moffitt Library
- Engaged and motivated employee

Figure 6

Alex Dias

Instruction Services Division 5 years at UC Berkeley, 1st year in ISD



- Teaches library instruction using classrooms in Moffitt
- Gives tours of Moffitt for students and donors
- Does not know student employees
- Sympathetic to student employees, having been one in the past

Photo by <u>KAL VISUALS</u> on <u>Unsplash</u> https://unsplash.com/photos/b1Hg7QI-zcc

Figure 7

Eric Garcia

California Resident 62 years old



- Purchased a California resident's card in 2008 and has continued renewing since
- Checks out materials from Main Stacks for the book he is writing
- Uses a cane; arthritic knees make inclines difficult
- Loves the library and donates \$200 to the library each year



Photo from public domain. https://pxhere.com/en/photo/767265

Figure 8

Blueprints

For the blueprint template, we modified the blueprinting tool from the *Service Design Tools* Library Juice Academy course (Marquez, 2020). We broke down the entry sequence into a series of steps, "walked" each persona through the sequence, and used the template categories to capture noteworthy aspects of each step. We created a total of seven entry sequence scenarios using our fictional personas.

Example 1 - Undergraduate.

Here is an abbreviated version of the blueprint for our undergrad persona, Paul Conway, successfully entering the library. To give some background, Moffitt Library requires that users show a campus ID card for entry into the library.

Step Action The action that takes place in this step.	Enter library	Show ID	Find Table
Touchpoints Touchpoint (locations, service points) involved at this stage.	Doors Book alarms	Info Desk	Table
Actor(s)/People Patrons and service providers involved in this stage. Not all stages will have a patron associated with them, so you'll need to make that distinction.	Student	Info Desk student Student	Student
Pinch Points Pinch Points and problems that a patron (or service provider) may encounter.	Crowded entry	Did not bring ID Info didn't see ID	Unfamiliar with space

Figure 9

The top row of the chart shows the steps involved in the entry sequence. In Step 1, Paul enters the library using the doors and book alarms, possibly navigating a crowded entrance. In Step 2, he shows his ID to the Information Desk. Hopefully he has his ID, and hopefully the Information Desk student is able to see it with the mass of people swarming through. In Step 3, he finds his study table, despite being unfamiliar with the space. All in all, things went pretty well for Paul during this entry experience.

Example 2 - Graduate Student Instructor.

Here is a section of a blueprint. This blueprint examines our Graduate Student Instructor, Natalie Blair, navigating the entry sequence. It's a big day for Natalie. Her discussion section is having a post-midterm celebration so she brought a guest speaker and a pizza to share with students. But, the guest speaker wanted to get a coffee first, so now she's turned around and trying to enter through an ID check point instead of the classroom side of the library that bypasses the ID check. She's stopped and questioned about bringing in both the guest speaker and the pizza, and even finding her usual classroom is proving challenging.

Scenario	Graduate Student with Guest Speaker					
Step Action The action that takes place in this step.	Approach Info Desk	Permitted guest entry Declined pizza entry				
Touchpoints Touchpoint (locations, service points) involved at this stage.	Sign Doors Info Desk	Info Desk				
Actor(s)/People Patrons and service providers involved in this stage. Not all stages will have a patron associated with them, so you'll need to make that distinction.	Student GSI's guest Info Desk employee	Student GSI's guest Info Desk employee				
Stakeholders Internal depts involved or who have a stake in service.	Info Desk employee Circulation Desk Facilities	Info Desk employee Circulation Desk Security				
System Requirements Technology required to perform service.						
Background Info Background information detailing service delivery; this could include policies or rationale as to why a service is performed as it is.	Moffitt 3rd floor is a busy entrance. Library users must present ID. Moffitt 3rd floor has a sign that says "Moffitt Undergraduate Library" (unclear if grad students can work in building)	There's no procedure for GSI's entering with a guest speaker. Ideally, the GSI or faculty would have emailed in advance for permission, but this is not always the case. There are no group servings of food allowed in Moffitt, this includes pizza. Pizza would have to be left at Info Desk and picked up later.				

Figure 10

Example 3 - Instruction Librarian.

Another blueprint highlight we'd like to share is of our instruction librarian, Alex Dias. She has a class in Moffitt Library and needs to check out the classroom key. Some of the pinch points Alex might face include: having issues opening the classroom door (as the key can be tricky), tracking down classroom chairs that have been disbursed into the open seating area, and having to ask any trespassers studying in the classroom to leave.

Scenario	Instruction Librarian enters Moffitt 4th floor				
Step Action The action that takes place in this step.	Enter Moffitt 4th floor	Show ID			
Touchpoints Touchpoint (locations, service points) involved at this stage.	Sign, doors	Info Desk			
Actor(s)/People Patrons and service providers involved in this stage. Not all stages will have a patron associated with them, so you'll need to make that distinction.	Librarian	Info Desk employee Librarian			
Stakeholders Internal depts involved or who have a stake in service.	Info Desk employee Circulation Desk Facilities	Moffitt Info Desk			
System Requirements Technology required to perform service.					
Background Info Background information detailing service delivery; this could include policies or rationale as to why a service is performed as it is.		Moffitt 4th floor is a busy entrance. Library users must present ID.			

Figure 11

Customer Journey Maps

We used consistent icons to draw attention to noteworthy aspects of each step in the entry sequence. The icon for "Touchpoints" is a hand, "Actors" is a face, "System Requirements" is a computer and so forth. We also provided this key coupled with the Customer Journey Maps, so library administrators could easily understand the graphics. We will discuss some examples of our customer journey maps to demonstrate their usefulness for gaining insights.



Figure 12

Example - Undergraduate.

In this example, undergrad student Paul Conway is trying to get into Moffitt Library to study with his friends. If Paul has his ID, it's smooth sailing. However, if Paul happens to forget his ID at home, he has a few obstacles to overcome in order to meet his study group in the library.



Figure 13

This is a depiction of Paul forgetting his ID to enter Moffitt Library. The arrows show that he first tries to enter via Moffitt Library. Not having his ID, he is referred to the Privileges Desk which is located at Doe Library, the building next door. He needs to find his way to Doe Library, then navigate to the Privileges Desk. There is no signage at the entrance of Doe Library so he may need to ask the Information Desk or wander down the halls to find the Privileges Desk. Once at the desk, hopefully he has another form of government-issued photo ID with him. (If not, we would add steps showing his return to his dorm to retrieve his ID.) Then, he must find his way through the Main Stacks that connect Doe Library to Moffitt Library. Based on our estimates, this whole process can take up to 15 minutes and cause frustration in our user, especially users who are new to campus and the libraries. Fortunately for Paul, he's merely trying to meet his study group. If he were headed to a class in Moffitt Library, he might be 15 minutes late. As a first generation student, Paul might feel like he does not understand the library and may even begin to feel that it is not a place where he belongs. From the practice of creating user profiles and blueprints, we learned about the unique challenges and needs for each user group.

Available Resources

We also included a list of resources to empower the leadership team with resources to learn more about service design. These resources were helpful during our own work and we believe they will prove helpful to the leadership team as they move forward with the Center for Connected Learning planning.

Presentation to Leadership Team

At the conclusion of the project, we presented our findings to the library leadership team via an hour long virtual presentation. We walked them through our examples and introduced them to the kit for their use in the decision making process.

Discussion

Service design is relatively new to libraries and has the potential to transform the way we provide services and cultivate inclusive spaces. Using service design tools helps to slow down a service to examine what is really happening over the course of a few minutes or seconds. These tools help a service provider step into the shoes of a user from a place of empathy to see what the experience is like from the user's perspective.

In our experience with service design, we found a way to articulate patron struggles to administrators. Front line staff often have first-hand experience with patrons' reactions to a service, either from observing facial expressions or being directly asked to explain the rationale behind policies. These workers may notice a pattern of dissatisfaction and bring the issue to their supervisor, but with busy schedules and competing values and priorities, their concerns may be acknowledged but not addressed. Service design tools provide a way to share and examine observations beyond anecdotal evidence. Our experience enabled us to create a kit for library staff to continue service design projects and move work forward beyond one-off observations.

A limitation to our project is that we were only able to rely on past observations of user behavior rather than involve users themselves. Though front line staff often have an inkling about how patrons perceive services, this is not always the case, as library staff cannot necessarily grasp the nuances of the student experience, especially for those originating from a different background. The library profession is overwhelmingly white, female, and non-disabled, which can cause blind spots when it comes to the priorities and values of other populations. As such, it is critical to be aware of one's own biases and ensure that multiple perspectives are part of the service design process. This helps to nurture inclusivity of space and build services that respond to the needs of users other than those who are white, female, and non-diasbled.

Next steps

What can the library do with this information? Service Design is an iterative process. We can take what we learned to create prototypes of services that better fulfil user needs. Prototypes are a service design tool where a service is tested before it goes live and before fully investing in getting it up and running. In our case, we might come up with solutions to the problems identified, create a prototype, and then use more blueprints and customer journey maps on the new process to see if it solves the initial issues we attempted to solve and identify any unintended consequences it might create.

A cynic might say that our results are no longer useful because the process took place in the pre-COVID-19 world, but we disagree. Yes, the entry sequence will not be the same upon

reopening: six feet distance will be required, traffic flow will need to be one-directional, and staff at the entrance will be enforcing state and county occupancy counts and mask laws. However, we believe that service design will be invaluable as the library navigates reopening. By applying service design tools, the library can ensure that patrons have a safe and positive experience.

Eventually, the library's Service Design Team will resume this work and begin educating the library at large about service design, especially in anticipation of the Center for Connected Learning. As more library employees become educated on service design, we hope to cultivate a service design culture and see service design principles applied to all kinds of services within the library.

Lessons Learned

There are many different tools a library can use during a service design project, beyond the three we detailed here. For a detailed account of service design tools, we highly recommend the book, *Library Service Design* by Joe J. Marquez and Annie Downey. It gives a comprehensive overview of service design tools and ways to implement them. We also recommend IDEO.org as a good resource for design thinking tools. They have a free design kit and videos online. A last resource worth exploring is Medium's Usability Matters, they have short insights into user design and user experience. The articles are 3-5 minutes long and give a general idea of what has been done in the design world. We recommend becoming familiar with the concepts of service design and browsing some of the many tools before implementing a service design project.

The beauty of service design is that there is no pressure to create a perfect end product. Service design is about experimenting, creating, and, for us at least, enjoying the process and having fun. When COVID-19 hit, we were forced to adapt our plans to continue work on the project. Because service design is all about adapting to the circumstances of an environment, it felt as if our project was meant to test the limits of service design principles. From this experience, we learned one major takeaway: no matter the challenge and extenuating circumstances, we can use service design methods and tools to re-envision a library service.

References

Books of the week. (1955). The Science News-Letter, 67(15), 236–236. JSTOR.

Brook, F., Ellenwood, D., & Lazzaro, A. E. (2016). In pursuit of antiracist social justice:

Denaturalizing whiteness in the academic library. Library Trends, 64(2), 246–284.

https://doi.org/10.1353/lib.2015.0048

Diversity Data Dashboard. (n.d.). Retrieved December 23, 2020, from

- https://diversity.berkeley.edu/reports-data/diversity-data-dashboard
- Everall, K., & Logan, J. (2017). A mixed methods approach to iterative service design of an in-person reference service point. *Evidence Based Library and Information Practice*, (12)4, 178-185. https://doi.org/10.18438/B87Q2X
- Gonen, E. (2020). Tim Brown, change by design: How design thinking transforms organizations and inspires innovation (2009). *Markets, Globalization & Development Review*, *4*(2). https://doi.org/10.23860/MGDR-2019-04-02-08
- Ilett, D. (2019). A Critical Review of LIS Literature on First-Generation Students. *Portal* (*Baltimore, Md.*), 19(1), 177–196. https://doi.org/10.1353/pla.2019.0009
- Marquez, J. (2020, February). *Service Blueprints*. [PowerPoint slides and video]. YouTube. https://youtu.be/94CugWDl5GI
- Marquez, J., & Downey, A. (2016). *Library service design: A LITA guide to holistic assessment, insight, and improvement*. Lanham, MD: Rowman & Littlefield.
- Ojennus, P., & Watts, K.A. (2017). User preferences and library space at Whitworth University Library. *Journal of Librarianship and Information Science*, 49(3), 320-334. https://doi.org/10.1177%2F0961000615592947
- Robinson, S. M. (2019). Critical Design in Librarianship: Visual and Narrative Exploration for Critical Praxis. *The Library Quarterly (Chicago)*, 89(4), 348–361. https://doi.org/10.1086/704965
- Salvatore, N. (1982, July). Transforming the American industry philosophy [Review of the book Frederick W. Taylor and the rise of scientific management, by D.

 Nelson]. Industrial and Labor Relations Review, 35(4), 623–625. JSTOR.

 https://doi.org/10.2307/2522685

- Spencer, M. E., & Watstein, S. B. (2017). Academic library spaces: Advancing student success and helping students thrive. *Portal: Libraries and the Academy*, *17*(2), 389–402. https://doi.org/10.1353/pla.2017.0024
- Strategic Plan. (n.d.). Stories of UC Berkeley Library. Retrieved October 22, 2020, from https://stories.lib.berkeley.edu/strategicplan/
- UC Berkeley Library Giving. (n.d.). *Center for Connected Learning*. Retrieved September 18, 2020, from https://give.lib.berkeley.edu/initiative/center-connected-learning
- Young, S.W.H., Mannheimer, S., Rossmann, D., Swedman, D., & Shanks, J.D. (2020). Service blueprinting: A method for assessing library technologies within an interconnected service ecosystem. *Public Library Quarterly*, *39*(3), 190-211. https://doi.org/10.1080/01616846.2019.1637222