A Donut for Your Thoughts
Usability Testing
Best Practices
The Marriott Library houses the University of Utah's Usability Lab, which is used by faculty, students, and staff from departments across campus. This gives our team an opportunity to offer support and training while also learning from diverse approaches. We've also recently done quite a bit of testing ourselves on our library website recently. We'll share what we've learned along the way, and hopefully you'll walk away with a few tools to carry your organizations forward.
Amanda:
Our donuts are imaginary today... but we will discuss how incentives can help your usability studies.

Since usability and user experience affect not only virtual but also physical spaces, this presentation will be applicable to anyone with the desire to improve user experience and better serve their patrons. We will cover usability testing best practices, efficient testing strategies, and effective tools for communicating needed changes.
Whether it's interacting with patrons face to face, or offering a library service, online or in person
Anytime a patron has an experience related to the library, whether that's online or in person,
It's a chance to make an impact, and hopefully a positive one.
Accessibility

If a site or space is not accessible, then by default it’s not usable.

Accessibility is inherent in conversations about user experience. If a site or space isn’t accessible, then by default it’s not usable.

Accessibility guidelines
There are several approaches to usability testing, it can be tough to know where to start. We knew there were issues with our site, so we took a multi approach

- **Canvassing** -- great place to start to get a sense of what to do next
- **Surveys** -- online or in person, best if they’re short, can be really effective to have 1 or 2 question surveys, ask different questions regularly
- **Individual User Tests** -- start to see repeat results, industry recommend 7-10 tests. If you aim for 10, you’ll find some really valuable data. It’s helpful to say, we’re testing the site, or system, not you. So if something’s confusing, we would really like to know.
- **Focus Groups** -- can be helpful to break these into different user groups -- for a university, that might be undergrad students, graduate students, faculty, & staff
- **Card Sort** -- can be utilized in a variety of ways. Help to sort navigation items. Recommend fewer than 30-40 cards if you’re asking the cards to be sorted into groups, so we went another route with our card sort
- **Tree Test** -- great for testing navigation
- **Prototyping** -- wireframing
• **Combine with Google Analytics**

Combined with analytics, we have the data to make changes. There’s so much to do -- how do you make it manageable going? Break into chunks -- block out time to do this work, to check in & build that in to your calendars
We canvassed in our student union building
If you’re attempting to answer why people aren’t going to your building, then go to other buildings & ask
At this stage, we wanted to know where students were starting their research. And we found that many of them were starting with Google or Google Scholar.
We also wanted to know what challenges students faced in their research, and what might help them moving forward
That information helped to reinforce a focus on clear and concise content, as well as relevant metadata
Interacting with students, or patrons, is a motivator and reminder of why we do the work that we do
Helping people more easily find the resources they need and to know about the services that can help is what this work is all about

Start a conversation

- Consider canvassing in a place outside of your building
- What are the most important questions?
- Listen to experiences, struggles & perspectives
- Keep those challenges in mind as you move forward
One student -- ran away, saying, nooo I'm trying to be healthy
It was January, so may have not been the best time for donuts.
One professor offered handwritten thank you notes with candy bars
We asked our events coordinator for recommendations & found a really great value
that worked well.

Ways to say thank you | Participation incentives

- Donuts and candy are great, but we found many students looking for less sugary or healthier options
- Ask colleagues for recommendations
- Opportunity drawing
Whether you utilize a multi-purpose space, a small room, or large room
Computer lab
Table & turn laptop around

- Morae, Optimal Workshop, Silverback 3
- Mirametrix Eye Tracking
- Individual user tests
- Focus groups
Patrons -- students & faculty, researchers
Power users -- library employees, people who use the site everyday
Open & closed card sort
What are the question(s) you’re trying to answer?
Essential, non-essential, what is it?
Categories
Leah introduce wireframe and navigation prototype. Why wireframe and prototype? Because it will save time and headache in the design and development stages.

In web design you have to admit what is called a “Malkovich Bias” which is the tendency to think that everyone uses the web the same way you do. When you watch people try to work through your beautiful layouts it can be enlightening and also very humbling. They cannot find the button you thought was so obvious or totally miss major sections of content.
What were the major navigation issues we are trying to solve with our wireframe/prototype?

For us:

- **Issue**: Navigation is too big and overwhelming
  - Possible solution - Reduced drop down to 2 columns, each with a max height (to restrict # of column items and allow for special selection).

- **Issue**: Terminology is confusing - “I don’t know what this is”
  - Possible solutions -
    - Refined top navigation language to Research, Services, About, Ask Us. There is overlap of content within these areas. However, these terms help group topics into quick, actionable choices.
    - Added description text to most sub-navigation items to help users understand Library jargon and/or vague department names.
    - Created a “catch all” landing page for all other items: More Research Support, All Services, All Collections, Technology & Spaces, More about the Library

- **Issue**: Discovery of sub content isn’t always intuitive
  - Possible solution - Moving the navigation away from a “strict” categorization
○ of navigation items. For instance, Research Consultations could live under 3 main navigation categories and catch all directories: research, services, and ask us. Instead of limiting its discovery path by forcing a strict content structure, we’ll allow a page/service like this to be included in relevant categories.
When testing prototypes, we want to test individuals as opposed to groups. When you get a group of people in a room you’ll start to see some herd behavior. So just a quick review on user testing principles and our testing prep work for prototypes:

Stay neutral. No leading the witness. It’s good to ask “Why?” Why do they prefer a? Why did they look first there? Try to get to motivations.

Testing prep work and process for our wireframe/prototype:
Context - How or where they got to your site. Eg. Your teacher provided a link to the Library’s homepage in the syllabus. Or You searched for “quiet study areas at the U of U” and found yourself directed to the Marriott Library’s homepage.

First Impressions - What’s the first thing that grabs your attention? What do you think this website is all about?

Scenarios - Identify a user story eg. As a < type of user >, I want < some goal > so that < some reason > - and phrase as a scenario. “You’ve heard that there are group study rooms in the Marriott Library. Six of your classmates want to meet after Monday’s 3pm lecture to review for an exam and the library is nearby. You want to study with them and find a spot to do so
comfortably.” Ask them to walk you through their thoughts and or reasoning if possible.

Observe - What distracts them? What labels or layouts do they find confusing? How quickly are they able to accomplish the task? Number of clicks?

Wrap up - Is this site useful to you? What else would you like to do here? What tool would you normally use to accomplish something similar to this? How does this compare to other similar sites/services you’ve used? What is most memorable?
Agile development approach: After internal and focus group prototyping, we’ll begin phasing the new navigation UX into our current site (as opposed to waiting for a larger redesign).
How to visualize data

- Compile data from usability testing & Google Analytics
- Communicate trends in a clear, quick to understand model

What did students find essential, non-essential, what is this?
Self-reported behavior & actual
50%
Communicate in a way that makes sense

- **Essential Pages**: Over 50% of students/patrons said these items are essential.
- **Unclear Terms**: 90% of users didn’t understand these terms.
- **Felt Overwhelmed**: 80% of users reported feeling overwhelmed when utilizing the site.
Focus on what the numbers and percentages represent: individuals experiencing unnecessary challenge.

“Empathy puts the heart back in quantitative, user analytics. It's grounded by a real user's lived experience.”

- Daniel Falko, *Use Empathy to Build Better Products*
Patrons First

- How do various types of patrons expect to use the site?
- Agility to make changes based on user data, behavior & analytics
- Websites are meant to be redesigned - encourage internal culture to expect and embrace changes that help patrons find what they’re looking for.

- User experience testing will and should prompt changes on your website. This can be difficult if your institution isn’t used to frequent/ fast changes.
- We’re working through this ourselves in a few ways.
- Lots of content creators and departments can be understandably precious about their pages - reinforce that UX testing and results help us to collaborate on the common goal of making our content and really our services as accessible as possible for our patrons.
As Amanda and Leah mentioned, we have hundreds of links in our navigation, which happened unintentionally over time, because we haven’t had a policy in place and have largely been at the whim of content creators insisting their space had to be in the sites main navigation.

As you can imagine this is terrible for our patrons.

So - We’re in the process of putting together a long-term plan for governance, so we’ll have to let you know how it goes.

The biggest takeaway - We have to be able to act when patrons can’t find what we’re looking for or problems grow and compound over time. We have to be able to take feedback about issues and problems not with offense, but excitement for the opportunity to improve.
One process we’ve had in place for several years now is our Annual Web Content Review

Describe our review process

- Spreadsheet
- Email
- Timeline
- Drop-ins

Preparing for content creators who’s pages are being bumped from the nav

- Offer consultation for SEO, writing for the web and improve the findability of their content and services
- Show them the data
Asking Critical Questions
Over and over (and over) again
Combine with User Experience Testing Results and Google Analytics

- Who are our patrons?
- How are they accessing our content?
- Is this page still needed?
- Is the content accurate and up-to-date?
- Could it be more concise?
- Are we using language and terminology patrons understand?
- Is the content/code accessible?
## Resources & Tools

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- Optimal Workshop -- Tree testing, Card Sort, online based
- Morae -- detailed testing tools & ways to analyze data
And then you’re done!

- Same could be said for a service, space, or way of interacting with patrons
- Continually ask what’s working well and what could be even better?

Practical tips for Web & mobile usability tests
“Approaching content as if you can post it and forget it leads to a site that, over time, does an increasingly poor job of meeting user needs.”

- Jesse James Garrett, *The Elements of User Experience*
Sometimes it feels like a rollercoaster...

The Evolution of UX Process Methodology

Worth it
To be able to see a patron have a positive experience, to find what they need, is always worth it. Whether that’s learning that therapy support dogs during finals week make a difference in reducing stress.
Thank you!

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