Practical User Experience

Collecting, Interpreting, and Using Data from Library Users

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Slides available at:
http://bit.ly/ux-sla2019

Outline

- What is UX? Why UX in libraries?
- Step 1: What is the problem? What would you like to learn?
- Step 2: Who is your target audience?
- Step 3: Design your study
- Step 4: Prototype & test
- Step 5: Execute
- Step 6: Assess your data
- Step 7: Change & communicate
- Real world examples
- Conclusion & takeaways

Shannon
Today we are talking about the approach to UX we use at the University Library - not technically complex or resource heavy and a version of this approach can be done at any library to for many purposes.
We will cover a brief discussion of what UX is, particularly in the context of libraries, followed by the 7 steps we follow for all types of UX activities. Then we will walk though 2 case studies from our library and how we applied this framework to make small changes that can have a big impact for users.

What is UX? (and what does it have to do with libraries)?

How you **feel** when you are using the library's...

- Website
- Catalogue
- Databases
- Email
- Instant messaging
- Text messaging
- Online reference

- Telephone
- Parking lot
- Building(s)
- Library workers
- Signage
- Furniture/shelves
- Materials

- Programs/events/ classes
- Computers
- Brochures/posters
- Library card
- Print newsletter
- Advertisements

Library touchpoints list from: Schmidt, A., & Etches, A. (2014). *Useful, Usable, Desirable: Applying User Experience Design to Your Library*. Chicago: ALA Editions.

Shannon
User Experience includes all the way people interact with your library and how they feel when they are doing it - it is not just about your website.

Libraries have many touchpoints where we can improve how our patrons interact with our spaces, services, collections, and systems. ,

Who are we? Not experts, just 2 (largely) self-taught library employees who want to make our users' lives easier. We believe that UX is a set of tools that anyone can practice and that can be used in many contexts.

At USask we do not have an official UX expert but we were doing UX things long before we knew we were - e.g. "No Log" (identify and solve recurring requests or questions we had to say no to)
Now we are working to consciously apply these principles across all our branches and get teams of people involved and comfortable doing this type of work.
UXC (reformatted the Client Relations Committee) to investigate various types of UX issues in the library (and spread the work-on-the-ground around).

Step 1: What is the problem?

Shannon

Step 1: Identify: What is the problem? What do want to learn? What are your research goals?

- You likely have many ideas to explore, but stick to one at a time. Doing general, unfocused inquiry produces general, unfocused findings and can be frustrating for your participants.
- Clearly define your research goal
    - Is it something you know needs improvement (like unhelpful signage), or is this an exploratory study to help you discover what your patrons would like to see change about a particular aspect of your library?
    - Make sure this goal or question is clearly stated and agreed on by all members of your team. A clearly defined question will guide the rest of your study design and make sure that what you learn is actionable - so you can do something useful what your results.

Step 2: Target Audience

NOT YOU!

Not colleagues either

Jen

- One of hte first hings you need to determine is who you are designing for
- The *real* users: our patrons
- Be as specific as possible
  - Is there a sub-set of users for whom you are designing?
    - Teens,
    - New Canadians
    - Senior Citizens,
    - Families
    - Indigenous
    - All of the above? Etc., etc., etc.
- At the University of Saskatchewan:
  - Undergrad students
  - Graduate students
  - Researchers (faculty et al)
  - Instructors
  - First year students
  - International students

Statistically Significant?

Jen

- How many participants should we include?
- 1000s of users does not mean 1000s of test subjects
- For our purposes today we are talking about qualitative research
- qualitative - aimed at collecting insights to drive design and decision, not numbers to impress people in PPT
- 5 is a good number for qualitative studies, except when it's not :)
- Testing with 5 people lets you find almost as many usability problems as you'd find using many more test participants.
    - almost always get close to user testing's maximum benefit-cost ratio
    - From the Neilson Norman group, UX research gurus
- This is a general rule - not anything carved in stone
- Keep in mind that the 5 is per user groups/target audiences
    - 5 undergrads and 5 grads students
- You also have to faith in the data - if you feel that you need to collect more, go for it
-
- Some exceptions (always):
- Quantitative studies (aiming at statistics, not insights): Test at least **20** users to get statistically significant numbers; tight confidence intervals require even more users.
- Card sorting: Test at least 15 users per user group.
- Eyetracking: Test **39** users if you want stable heatmaps.
- Variance in statistical sampling determined by the sample size, not size of the full population from which the sample was drawn

"We have several different target audiences." This can actually be a legitimate reason for testing a larger user set because you'll need representatives of each target group. However, this argument holds only if the different users are actually going to behave in completely different ways. Some examples from our projects include

- a medical site targeting both doctors and patients, and
- an auction site where you can either sell stuff or buy stuff.

When the users and their tasks are this different, you're essentially running a new test for each target audience, and you'll need close to 5 users per group. Typically, you can get away with 3–4 users per group because the user experience will overlap somewhat between the two groups. With, say, a financial site that targets novice, intermediate, and experienced investors, you might test 3 of each, for a total of 9 users — you won't need 15 users total to assess the site's usability.

- Number of users will vary depending on your problem/issue
  - 5 is good is good for identifying pain points
  - BUt no so good for determining what chair is the best one for your library

Step 3: Design Your Study
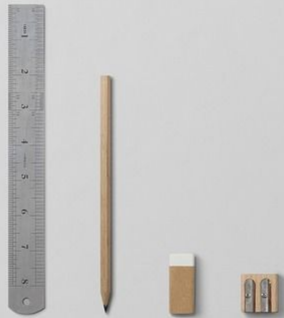
Jen

Dependent on research question….And time, money, people

1. Select a ux research method
   a. There are dozens, most common qualitative data collecting methods are interviews and usability testing or task observation, and card sorting
      i. Just a note that card sorting is one of those exceptions that has a suggested user participation number of 15 to 19
2. Create list of materials and supplies
   a. This includes such things as scripts, prototypes, as well as pencils and paper
   b. And don't forget a compensation item - we suggest oranges
3. Develop a timeline
   a. How long do you want to spend in each interview or task obervation or card sort?
   b. More to the point how much time can you practically spend?
      i. Remember you may one need 5 test users!
      ii. But you may need 20
4. Pick a Space
   a. Do you need privacy? Room for protytpes or card sorting? Do you need a computer station? Do you need multiple computer stations? If so, consider using laptops
   b. Do you need to be in a hig traffic area?

And remember : be flexible, guaranteed something will have to flex as the steps proceed

Step 4: Prototype & Test
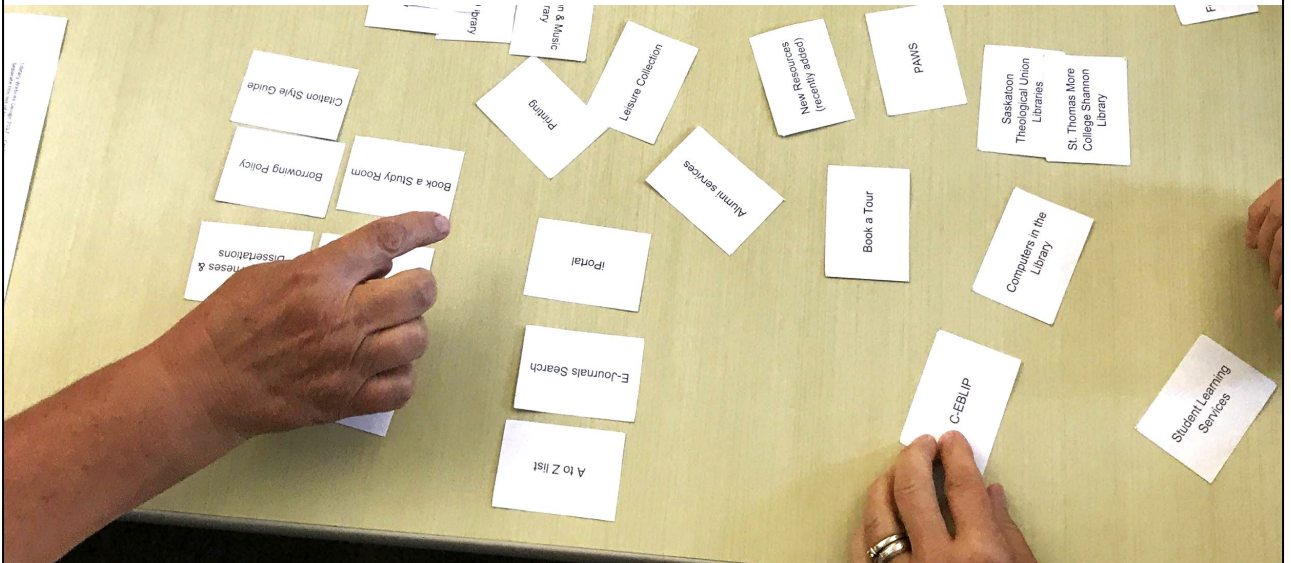
Shannon
Once you have your design set, you need to create all of the materials you will need to do the study: scripts, surveys, forms, posters - everything!)

You must also test it out with people who didn't help design the study - your co-workers, friends, children, or a library regular. This is a critical step because it will reveal any confusing or redundant parts of your exercise before you begin recruiting users.

Teams - be clear on your roles (will one ask the questions and the other observe and take notes?) If you are both going to do data collection, make sure you are being consistent in the way you ask questions and record answers.

Solo - plan your data collection carefully so you are not scrambling. Designing a response tracking form is more work up front than simply taking notes, but it will save you time later and help ensure you don't miss steps.

Step 5: Execute Plan

Jen

Time to put it all into play

a. Be organized to be efficient (of course you are! You tested your design)

b. Be efficient - Don't waste the users' time

c. If having them do a task: don't help! you must ignore all your instincts!

    i. Balance this with not letting anyone struggle for too long as it may get awkward for them

    ii. make sure they are well aware that this task is not to test THEM, but the system/prototype/website

    iii. Their comfortability is paramount

d. We highly recommend slipping in the closing question of: Is there anything else that you would like us to know about (the library)? Anything else you would like to tell us about the library?

    i. Amazing what people will volunteer

e. Thank them AND Compensate people for their time (food, print credits, etc.): People love oranges, apparently even more than candy (at least on campus)

f. Organize your notes ASAP and make observational notes about the responses, but also how the sessions went, what you could improve on.

a. As always: be flexible,
b. EXAMPLES: Take a Break post-its, Interviews (LibGuides name, naming circ & ref desks)

Step 6: Assess Your Data

Shannon:
Now that you have all of your data collected, it's time to figure out what it means. A well designed study will make the assessment step much easier - refer back to your question from step 1.

Even with a solid design, you may not get a clear-cut pattern of responses that points to an obvious solution. This is an opportunity to ask if a second round of testing is required or if the design of the study needs to be changed in order to get at the user opinions you need.

Plan for the unexpected: In your responses and comments you are likely to capture things that surprise you or are totally unrelated to the question you asked. Don't lose this information! They might lead you to new questions or problems you didn't know about. Have a method to track this information - even a document where you save these comments is great.

Step 7: Change & Communicate
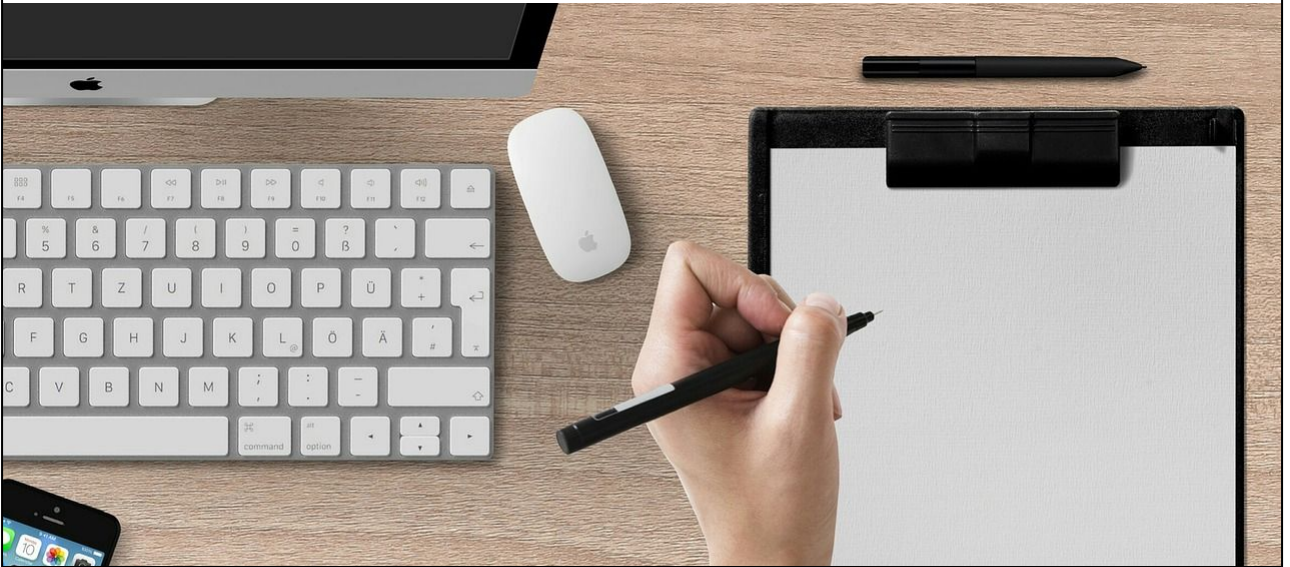
Shannon:
Now that you know what action will answer you question - do it! Change the terrible sign, move the problematic furniture, rewrite the confusing webpage.
Equally as important - announce the change and tell everyone (especially library employees!) WHY it is changing.

Users may not immediately notice a subtle change and are likely to be pleasantly surprised by a change that makes their experience better, but this can mean shifts in the way library staff do our work. We need to remember that we are the most comfortable with the way we already do things, and we are not our users! Explaining the why (with persuasive proof!) goes a long way getting buy-in from colleagues.

What do you do if you cannot fix a problem the way your users are asking? Do not ignore this information! People do not want to be asked for their opinion and then be ignored. Acknowledging that you hear their concerns can be (almost) as satisfying and being able to act on it.

Stay open to feedback from colleagues and users as the changes are made - no change process is 100% guaranteed and it is ok to be wrong, as long as you stay empathetic and responsive.

Set It and Forget It
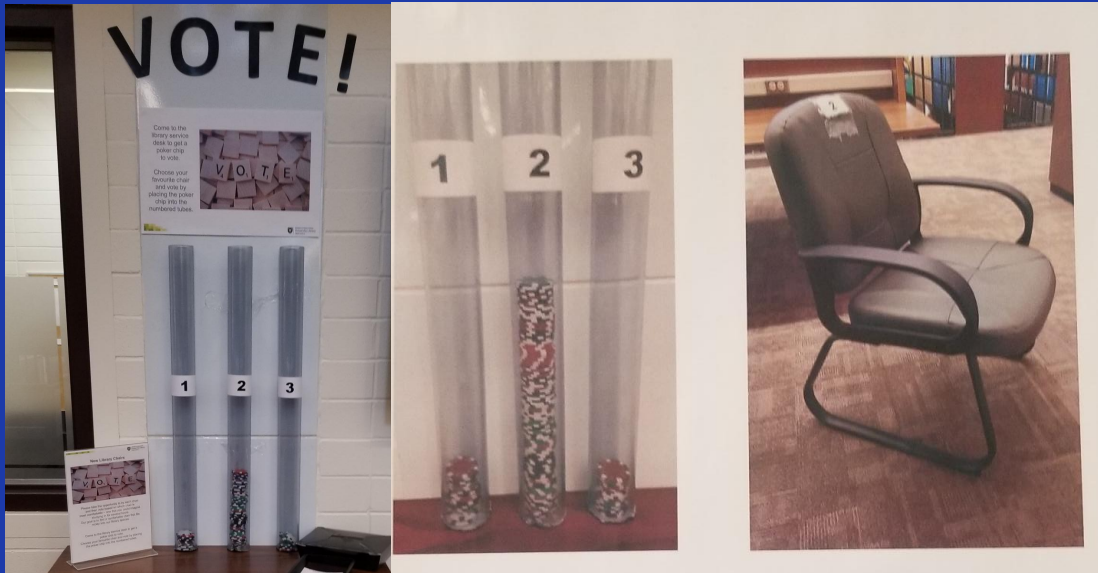
Jen

1. Set it and forget it style:
   a. Law chairs
   b. Question:: what do we want to learn: which chairs to the students prefer
   c. STEP 2: target audience: Law Library users (students - undergrad, grad,)
   d. STEP 3: Design: did not think of this - would love to take credit
        i.
        ii. I wouldve suggested a voting box or something like that
        iii. Came from the designer and project lead
   e. STEP 4: Prototype and test: designer had done this before and knew of its awesomeness
   f. STEP 5: Execute: Set it and forget it
   g. STEP 6: assess data: which tube is the most full?
   h. STEP 7: change and communicate
        i. Hung sign up at the one main service desk area, included numbers and a personal note about enjoying this process with the students
   i. Totally transparent, build relationship with users, extremely easy to announce results
   j. totally transparent, at high traffic/high stress time in library, build recognition and relationship with users, must do something with this info - make changes and communicate).

Real Example: Mediated/Observational

1. **Problem:** What should we call our LibGuides?
2. **Audience:** All library users, primarily undergrads & new researchers
3. **Design:** In-person, questionnaire, rank multiple options
4. **Prototype & test:** Script, questionnaire sheet, printed guide examples
5. **Execute plan:** Wandering consultations at 6 branches, paper prototypes & questionnaires, collected user demographics
6. **Assess:** Looked at top-ranked options & comments
7. **Change & communicate:** Updated website, email to library employees detailing study process & results.

Shannon

1. Problem: what do we call libguides to avoid library jargon and let user know what to expect from their content?
   a. Interesting problem because we knew the term(s) we were using were confusing, but library staff and librarians had strong opinions about what was accurate terminology to use. We started with an emailed online survey to all library employees to ask them what name(s) they preferred and used that data to create out questionnaire tool for users. We also came back to this data for the final report to employees about the change.
2. Audience: primarily undergraduate students & new researchers - target audience for guides
3. Design: Show users 4 possible layouts, ask them to find research help hours for their favourite branch, observe and ask them to rank and comment on how easy/hard each is to use
4. Prototype & test: Intro script, questionnaire sheet, paper prototype of guides with names/headings removed. Tested with library staff member.
5. Execute: Jen and I did wandering consultations at 6 branches over several days, targeted a mix of respondents (faculty, staff, students, major, year, etc.) and tracked demographics as well as responses. - tested with 16 individuals
6. Assess your data: easy - we asked people to tell us what they would call them (most were stumped), then asked to rank top 3 from 7 options and cross out the ones they didn't like. Ended up with a clear pattern (independent of demographics)
7. Take action & communicate - easy - implemented the preferred name (Research Guides) on the website. This was a subtle change for users so we didn't do a big news announcement. We did send a detailed email to all library employees about how the study went and what the results were - very different from what library employees

1. wanted. This was a great example of how consulting with employees first and using their feedback as part of the process was a way to create a solid design and to demonstrate that we are not our users. Laying out all of the numbers and how it was collected was persuasive and this change was embraced more readily than I could have possibly imagined it would be. Small change, but a great success.

Conclusions and Take-Aways

- You don't need to be an expert!
- Do-able on a shoestring
- 5 participants per target audience
- Be organized and flexible
- Communicate, communicate, communicate
- Just do it!

Jen
- You do not need to be an expert! A willingness to listen and think critically about solutions is key.
- Collecting data does not have to be onerous (or time-consuming) ; Don't need 100s of test subject, don't need to spend lots-o-money
- Be flexible - you've got to be able to roll with it when a test subject says/asks/does something completely unexpected
  - You may have to adjust something - a question or a reaction
- Acknowledge good ideas even if you cannot act on them immediately. Keep track of suggestions or problems somewhere and check in regularly. Send suggestions to your vendors or managers - if you don't ask you will never get.
- Keep track of your studies and what you learned. Save your tools/instruments. You don't have to reinvent the wheel.
- The more studies you do, the more users get accustomed to seeing you in the library soliciting feedback. If users see real results from engagement, they will be more likely to participate (with or without bribes)

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Slides & notes available at: **http://bit.ly/ux-sla2019**

Additional Resources:

- Library Voice blog - Library service desks & user experience
- Nielsen Norman Group - nngroup.com/
- UX Planet - uxplanet.org
- Book: Schmidt, A., & Etches, A. (2014). Useful, Usable, Desirable: Applying User Experience Design to Your Library. Chicago: ALA Editions.

Thank You