USABILITY STUDY OF LIBRARY.CONCORDIA.CA

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CONCORDIA UNIVERSITY LIBRARIES’ 12TH ANNUAL RESEARCH FORUM
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PROJECT BACKGROUND

- **Summer 2011**: First proposed project plan for website redesign created by the Web Team (Danielle Dennie (chair), Tomasz Neugebauer, Susie Breier, Luigina Vileno, Jared Wiercinski, Jean-Marc Edwards)
- **2011-2013**: Revisions to the project plan
- **Fall 2013**: Applications approved for:
  - Ethical acceptability for research involving human subjects
  - Funding from the Library Research Fund
  - Practicum student from McGill’s SIS
- **Winter 2013-2014**: Internal data gathering
- **January-March 2014**: Study conducted
Norman (2002) describes user-centred design as:

A philosophy based on the needs and interests of the user, with an emphasis on making products usable and understandable (p.188).
THE STANDARD: HUMAN-CENTRED DESIGN PROCESS

Plan the human-centred design process

Understand and specify context of use

Specify user requirements

Evaluate design against requirements

Iterate where appropriate

Specify user requirements

Produce design solutions to meet user requirements

Designed solution meets user requirements

ISO 9241-210: 2010
Our research questions:
1. What do our users need?
2. What are our/their goals and objectives for the site?
3. What are the specifications for tasks/functions?
4. What content is required?

(Garrett, 2011)
METHODS

Librarian survey
Top 100 webpages
Top search terms on site
Top search terms from Google
Chat transcript analysis
Interviews
Describe that library thing
Name that library thing
Card sorting & ranking
Usability testing of tasks
ABOUT THE STUDY

74 participants

- Vanier Library 5 days
- Webster Library 3 days
- Hall Building 2 days
- MB Building 1 day
- EV Building 1 day
- SP Building 1 day

$5 gift cards

Date:
- 13

Days:
- Mon (X)
- Tues (X)
- Wed (X)
- Thu (X, X)
- Fri (X)
- Sat (X)
- Sun (X)
Pam, Tomasz, Danielle, and Luigina

**Goal:** Learn about how participants use the library and uncover any knowledge gaps we might be able to fill with the library’s website.

**Method:** Semi-structured interview with 7-12 questions.
FINDINGS

- Majority of students were searching for articles (more than books)
- Some students commented on their difficulty in finding the right database
- Every student (except engineers) were using citation guides
- Students were generally unaware of research guides and chat
Susie and Tomasz

**Goal:** To gauge the user’s level of understanding for items on our website.

**Method:** Reviewing screenshots of the home page and “information for undergrads/grads” pages and telling us what they thought each link was for.
Users are experiencing cognitive overload – because we’re presenting them with too much information

- we have a tendency as librarians to make exhaustive lists

Conceptual understanding of search

Users don’t understand library jargon and vague category labels
- Kathleen

- **Goal:** Discover the natural language used by participants to describe library-related items.

- **Method:** Participants looked at eighteen different scenarios and got the opportunity to choose a name for a library service, place or thing from a multiple choice list or come up with their own name.
**SITUATION:** YOU’RE LOOKING FOR A PLACE TO STUDY THAT’S SEMI-PRIVATE, QUIET, AND FREE OF DISTRACTIONS.

**Thing:** There is an area with this furniture.

**What do you call this furniture?**
POSSIBLE ANSWERS

a) Cubicle desk
b) Study cubicle
c) Study carrel
d) Study desk
e) Other: ______________
FINDINGS

- Article delivery = Request PDF Delivery
- Information for undergraduates = Undergraduate Services
- Circulation desk = Checkout desk
- Workshops = Research training sessions
- Passarelle = Passageway
- Study carrel = Study cubicle
- Interlibrary loan = Interlibrary borrowing service
- Suggestion box = Feedback

- CLUES library catalogue = Library catalogue
- MyCLUES = My library account
- Discovery layer = Library search engine
- Research guides by subject = Library guides for your department
- Spectrum Research Repository = Concordia scholarship research repository
- CREPUQ/BCI card = Borrow from Quebec libraries
CARD SORTING AND RANKING

- Kathleen, Jared and Luigina

- Participants looked at index cards that were all labeled with a piece of web content (e.g. library fines) and asked to sort them twice.
  1. Sort them from most important to least important
  2. Sort them into the groups you would like to see on the library website homepage and then name these groups.
CARD SORTING TERMS - EXAMPLES

Search for articles in databases
Search for books in the library catalogue
My library account (log in)
Renew books
Login to RefWorks
Citation guides
How to print at the library
Look up library hours

Get card for borrowing books at other Quebec university libraries
Library laptops + iPads
Search JSTOR, EBSCO and other databases
Book a study room
Request books and articles from libraries around the world
Find a study space in the library
<table>
<thead>
<tr>
<th>1. Search for journal articles in databases</th>
<th>2. Search for your course textbooks on reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. My library account (log in)</td>
<td>4. Citation guides</td>
</tr>
<tr>
<td>5. Search JSTOR, ProQuest, EBSCO and other databases</td>
<td>6. Search for books in the library catalogue</td>
</tr>
<tr>
<td>7. Research guides by subject</td>
<td>8. Log in to RefWorks</td>
</tr>
<tr>
<td>9. Request books and articles from libraries worldwide</td>
<td>10. Book a study room</td>
</tr>
<tr>
<td>11. Renew books</td>
<td>12. Get card for borrowing books at other QC libraries</td>
</tr>
<tr>
<td>13. Library laptops + iPads</td>
<td>14. Find a quiet study space in the library</td>
</tr>
<tr>
<td>15. Look up library hours</td>
<td>16. Get help with writing</td>
</tr>
<tr>
<td>17. Live chat with a librarian</td>
<td>18. Who’s your librarian?</td>
</tr>
<tr>
<td>19. How to print at the library</td>
<td>20. Library fines</td>
</tr>
</tbody>
</table>

**WHAT IS THE MOST IMPORTANT TO USERS?**

Calculated by adding the sum of all 24 participants’ ranking of each term.
### Frequent Item Sets

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Grouped With</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Citation guides</td>
<td>Get help with writing</td>
</tr>
<tr>
<td>2</td>
<td>Library fines</td>
<td>Look up library hours</td>
</tr>
<tr>
<td>3</td>
<td>Research guides by subject</td>
<td>Search JSTOR, EBSCO and other databases</td>
</tr>
<tr>
<td>4</td>
<td>How to print at the library</td>
<td>Look up library hours</td>
</tr>
<tr>
<td>5</td>
<td>How to print at the library</td>
<td>Book a study room</td>
</tr>
<tr>
<td>6</td>
<td>How to print at the library</td>
<td>Find a study space</td>
</tr>
<tr>
<td>7</td>
<td>Search for articles in databases</td>
<td>Search JSTOR, EBSCO and other databases</td>
</tr>
<tr>
<td>8</td>
<td>Library laptops + iPads</td>
<td>Book a study room</td>
</tr>
<tr>
<td>9</td>
<td>Library laptops + iPads</td>
<td>Find a study space in the library</td>
</tr>
<tr>
<td>10</td>
<td>Book a study room</td>
<td>Find a study space in the library</td>
</tr>
</tbody>
</table>

**HOW USERS GROUPED CONTENT**  
Calculated using frequent pattern mining with software R and an Excel spreadsheet.
NEXT STEPS

- Plan the human-centred design process
- Understand and specify context of use
- Evaluate design against requirements
- Specify user requirements
- Produce design solutions to meet user requirements
- Design

ISO 9241-210: 2010

- Feedback
- Usability testing with prototypes
- Design

Data analysis by the Usability Study Team
Recommendations

• Wireframes
• Navigation
GENERAL OBSERVATIONS

- We only had 1 part-time faculty member participate and we didn’t have anyone from fine arts
- Also a teaching experience, and an opportunity for marketing and outreach
- Students want contextual help
- Team work!
- Now we can make evidence-based decisions
ACKNOWLEDGEMENTS

- **Usability Study Team:** Kathleen Botter, Susie Breier, Danielle Dennie, Tomasz Neugebauer, Luigina Vileno, Jared Wiercinski, (Vivienne Layne and Pam Carson)


QUESTIONS AND COMMENTS?

Thank you