Taming Discovery
Collaboration, Customization, and User Testing

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Buyer beware

No matter how much product research you do, some issues won’t be discovered until well into (or after) product implementation.
The value of partnership

- Symbiotic relationship
- Shared interest in quality assurance
- Mutual benefit in sharing resources/expertise
- Foundation for future collaborations
Goals of user testing

1. Identify issues that negatively impact the user experience

2. Recommend strategies for improvement, including:
   » Product customization
   » Product enhancement
   » User education
Methods

• Moderated remote testing
• Think aloud protocol
• Task-based scenarios
• Pre- and post-test questionnaires
Why remote testing?

- Easy – only need a PC and microphone
- Convenient – participate from anywhere
- Unobtrusive – within users’ own environment
- Collaborative – supports virtual collaboration

## Defining user needs

| Find       | • Find information about topic or search for known items  
            | • Construct simple and advanced search queries |
|------------|----------------------------------------------------------|
| Identify   | • Identify key descriptive info such as title, author, subject, etc.  
            | • Distinguish between different formats and content types |
| Select     | • Determine the relevancy of results to their search criteria  
            | • Select items within the larger set of retrieved results |
| Obtain     | • Determine the location/availability of an item  
            | • Request locally unavailable items through interlibrary loan |
| Use        | • Save, print, or share an item  
            | • Cite or export references using citation tools |

Examples

“You are writing a research paper that argues that social networking sites like Facebook are a threat to privacy. Find two scholarly articles that support your argument and email them to yourself.”

“Find one news article about U.S. foreign debt published in the New York Times during the last three years. How would you capture citation information for this article to use in your bibliography?”
Recruitment

- Flyers posted in campus libraries
- News article on library website
- Announcements on social media
Participants (demographics)

12 participants

By Status
- Undergrad: 58%
- Graduate: 25%
- Faculty: 17%

By Discipline
- Humanities: 17%
- Sciences: 25%
- Social Sciences: 58%

By Campus
- New Brunswick: 75%
- Newark: 17%
- Camden: 8%
Participants (library usage)

12 participants

Library Use
- Always: 41%
- Sometimes: 17%
- Often: 25%
- Rarely: 17%

Library Instruction
- No Instruction: 33%
- Instruction: 67%

Preferred Resource
- Google: 33%
- Library Databases: 67%
## Findings

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Success</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Find two scholarly articles on social media and privacy and email them to yourself</td>
<td>80%</td>
<td>2:03</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>1:35</td>
</tr>
<tr>
<td>2. Find an article on wearable technology and share it with your colleagues</td>
<td>100%</td>
<td>2:46</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0:42</td>
</tr>
<tr>
<td>3. Find one article on U.S. foreign debt published in the New York Times during the last three years and cite it</td>
<td>60%</td>
<td>5:45</td>
</tr>
<tr>
<td></td>
<td>40%</td>
<td>2:20</td>
</tr>
<tr>
<td>4. Find the article “On Magic Realism in Film” by Frederic Jameson and obtain full text</td>
<td>80%</td>
<td>3:14</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>1:04</td>
</tr>
<tr>
<td>5. Find one conference paper artificial intelligence in perinatal medicine and explain how you would broaden your search to find additional results from other sources</td>
<td>50%</td>
<td>4:30</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>1:45</td>
</tr>
</tbody>
</table>
Observation

Most users rely on natural language or basic keyword searching more often than Boolean or field searching.

Recommendation

[User Education] Improve user education on search query construction including keyword selection, field searching, search operators, facets, and limiters.

[Customization] Change default search mode from Boolean/Exact Phrase to Find All My Search Terms.
Observation

Most users have difficulty searching for known items even when the exact title of an article is entered.

Recommendation

[Enhancement] Improve searching and relevance ranking for known items.
Observation

Most users do not navigate beyond the first page of results

Recommendation

[Customization] Increase number of results per page

[Enhancement] Replace paginated results with infinite scrolling
Observation

Most users have difficulty distinguishing between content types and formats

Recommendation

[Enhancement] Improve format icons and content type definitions

[User Education] Improve user education on content types and formats
Observation

Most users find the interface to be too cluttered, particularly the right column of the search results screen.

Recommendation

[Customization] Remove the right column to simplify the search results screen and find alternative ways of integrating this content using contextual or on-demand controls.
Next steps

- Analytics
- Point-of-need instruction
- More usability testing
Questions?