Is one stop shopping all we dreamed it would be?

Usability and the Single Search Interface

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Introduction

- What is single search?
- About usability testing
- The results
- What is next?
Federated Searching at Memorial

- SingleSearch (one interface...many resources)
- Resolver (links to our full-text & holdings)
- RELAIS (document delivery)
One interface...
...for many sources...
…leading to full text…
...or to a check of our holdings...

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<tr>
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<th>Get it @Memorial</th>
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<tr>
<td>Intestinal B cell lymphoma associated with chronic hepatitis C and celiac disease</td>
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<tr>
<td>Author: Coban, Sehin, et al.</td>
<td></td>
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<tr>
<td>Source: Digestive Diseases and Sciences, 2005; 50(12): 2359-2361</td>
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<td>Author: Selouk, Haldun, et al.</td>
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<td>Source: Digestive Diseases and Sciences, 2006; 51(1): 213-214</td>
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<td>Author: Borgoonker, Mark-R, et al.</td>
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<td>Author: Kilmartin, C, et al.</td>
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Resolver links to online holdings...
…or to Relais (document delivery system)
What is usability?

Help users overcome technology and make it easy and efficient and pleasant for them to use.

Jakob Nielsen
Nielsen Norman Group
Advantages of usability

- Save the user time
- Save the organization time & money
- Counter the whims of the designer
- Good PR for the library
- Settles disagreements among design team members
Test Audience

- 12 participants from three MUN Libraries
- 5 males and 7 females
- 7 undergraduates, 3 graduate and 2 faculty
- Ages ranged from under 20 to 49
Survey Tasks

- Select categories & resources
- Find & check holdings for a book
- Find & check holdings for an article
- Navigate the Resolver
Sample Questionnaire

Task IV: Reviewing Results

1. Look through the results and find a book.
   A. In the first page of results, is there a book?
      ___ Yes          ___ No          ___ I don't know

   B. If you answered YES to A, please note the following:
      Title of Book: __________________________________________________________

      Author of Book: _________________________________________________________

      Name of library/libraries that own this book (write "do not know" if you are unsure of the answer):
      ____________________________________________________________

(continue to next page)

2. Look through the results and find an article.
   A. In the first page of results, is there an article?
      ___ Yes          ___ No          ___ I don't know

   B. If you answered YES to A, please note the following information:
      Title of Article:_______________________________________________________
Test Materials & Analysis

Test Materials
- Pre-test: demographic and library use data
- Survey: completed as participants completed the tasks
- Post-test” participant impressions of single search

Analysis
- Quantitative data analyzed by SPSS
- Screen captures analyzed with a variety of tools (click path analysis)
Results!

- The expected...
- The unexpected...
- The bonus material
Overall Performance
Difficulty understanding layout of search

Select by group or scroll down to select by individual resource:

- Arts and Music
- Biology
- Business and Economics
- Canada
- Chemistry and Biochemistry
- Earth Sciences
- Education
- Engineering and Computer Science
- English & World Literature
- Environment and Geography
- Ocean Sciences and Technology
- Physics
- Political Science
- Psychology
- Religious Studies and Philosophy
- Social Work
- Sociology and Anthropology
- All Subjects

Select individual resources:

- Arts and Music
  - America: History and Life
  - Art Index
  - ArtCyclopedia
  - British Museum
  - Canadian Music Periodicals Index
  - CBCA Current Events
  - CBCA Reference
  - International Index to Music Periodicals
  - Wilson OmniFile Mega Edition
- Biology
- News
- CBCA Current Events
- CBCA Reference
- GoogleNews
- PAIS International
- Regional Business News
- Wilson OmniFile Mega Edition
- Ocean Sciences and Technology
  - Applied Science and Technology
  - ASFA: Aquatic Sciences and Fisheries Abstracts
  - EICompendex
Participants selected many resources/categories to search

- For the question, "Find information on the evolution of the human skeleton" participants selected an average of 2.5 categories and 3.25 resources.

<table>
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<tr>
<th>Categories Selected</th>
<th>Resources Selected</th>
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<tbody>
<tr>
<td>$M$</td>
<td>2.0</td>
</tr>
<tr>
<td>$Mdn$</td>
<td>2.0</td>
</tr>
<tr>
<td>$\sigma$</td>
<td>1.348</td>
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- Equals approximately 25 databases being searched
Lots of clicking & Lots of hovering

- Participants were asked to select “Get It@Memorial” and navigate to Library holdings.
  - Took participants an average of 9 clicks to reach an article/holdings or to give up.
  - Participants who were successful took an average of 6 clicks.

- Participants were asked to choose an article citation and determine if it were available online or whether MUN owned it.
  - Took participants a average of 5 min. & 10 sec. to complete
Basic search strategies

- None of the participants used sophisticated search techniques like Boolean and/or truncation. I.e.,
  - “Find information on pollution and asthma”
    - pollution asthma (2)
    - asthma pollution
  - “Find information on elder abuse”
    - information on elder abuse
    - elder abuse (2)
Users identified format with ease

- 100% of participants were correctly able to identify whether there was a book and an article on their search results.
- Majority (75%, $n=12$) selected an article where document type was in the Single Search display.

Title: Families Seen Sightseeing: Performativity of Tourist Photography
Author: Jarsen, Jonas
Type: Journal Article (aja)
ISSN: 1206-3312
Source: Space and Culture, 2005, 8, 4, Nov, 416-434
Majority of users chose “more Information” as a route to holdings

- 2 options in each citation:
  - More Information: Links to native interface
  - Get it@Memorial: Links to Resolver

- Question asked: “Is the article available online (full text)? If not...does any MUN Library have this article?”
Expected Click Path

Question: Is the article available online?

Title: Institutional elder abuse.
Type: Editorial
ISSN: 1474-547X (Electronic)
Location: England
Actual Click Paths

Question: Is the article available online?

N = 8 (successful attempts)
N = 10 (unsuccessful attempts)
Fascinating insight into how people deal with error messages (which abounded) and other browsing behaviours.

Example
Conclusions...thus far.

1. Selection of resources to search needs to be simplified
2. Need to include format identifiers (icons/document type field) wherever possible
3. Need to clean up display to aid decision making
4. Need to promote “most efficient” path through the SingleSearch to the article
What next?

- Use the data to develop mocks of different layouts for focus group this summer

- Re-do study when Rooms Portal is implemented?
Users get the last word…

“It displayed a wide range of results with very little effort. Usually I would use google for research for an essay, but after seeing how easily and accurately this system finds and displays information I would rather use it.”