The User Focused Implementation of YuFind (VuFind) at Yale

Digital Library Federation
November 13, 2008
Today’s Presentation

Karen Kupiec, Director of Library Access Integration Services:
- Background & Methodology, Benefits & Challenges

Katie Bauer, Director of Usability & Assessment:
- Impact of Usability & Assessment, Next Steps
Why Here – Why Now?

- Expectations by users for Web 2.0 type features and functions – even in Library catalogs.
- Test ourselves – can we participate in and contribute to a flexible, agile open source development project? (we talk it – can we walk it?)
- Cultural change – from ‘product oriented’ to ‘process oriented’ – the product is never and should never be final – it will evolve.
Benefits

- Spelling Suggestions
- Relevancy Ranking
- Faceted browsing
- Similar Items
- Integrated Web content ("mashups")
  - Google Books, WorldCat, Amazon, etc
- Integration of other digital collections (images)
- Etc.
Background & Methodology
Core Project Team

Across the Library…

- Project Manager is Daniel Lovins - a Cataloger!
- Medical Library
- Technologists (lots)
- Usability & Assessment
- Cataloging & Metadata Services
- Public Services
Aggressive Implementation Schedule

- **Phase 1**: 3 Months to Evaluate – Will this work here?
  - Spring 2008
  - 8-10 staff Core Project Team

- **Phase 2**: 3 Months to Implement – Make it work here!
  - Summer 2008 – August 15 Due Date
  - 10-12 staff Core Project Team & Resources from Medical (~3-4 Total FTE)

- First major Open Source Implementation of its type for the Library.
The need for Agile Project Management (APM)

- Concepts of Agile Software Development on top of traditional Project Management tools & techniques
- Effective when the requirements are subject to change.
- APM is
  - a highly iterative and incremental process
  - developers and project stakeholders actively work together
    - they understand the business need
    - identify the tools/processes to be built
    - prioritize functionality
When does APM work?

- project value is clear;
- customer* actively participates throughout the project;
- the customer*, designers, and developers/implementers are co-located
- incremental feature-driven development is possible;

The APM methodology and process will continue into the fall.

*Customer represented by Usability & Assessment
Phase 2 Milestones

- August 15 Go-Live - achieved!
- Phase 2 Usability & Assessment requirements – achieved or in progress.
- Skills/Knowledge Transfer across project team underway – ensure supportable, scalable, with moderate & acceptable risk to implementation.
Challenges – Regardless of the Platform

- System Response Time (fixed?)
- Precision of Facets
- Comprehensiveness of Facets
- Extent of indexing
- Exposure of inconsistent/invalid metadata
- Local call number index
- Prioritizing requests for fixes and enhancements
What’s Next – PhaseFall

- Implement Tagging – CAS enabled – policies needed.
- Record clean-up – VuFind/Primo/whatever – all will highlight records that need to be fixed – what are the policies and priorities?
- Develop a process for evaluating and ranking feedback – and then implementing changes / updates.
- Evaluate Primo, maybe others – and decide on the right path.
Conclusions

- Great tool ...
- Success proportional to how much and how wisely we invest
- Challenges are significant, but surmountable
- Opportunities for many new services and enhancements
- Prioritization should be driven by usability & assessment
Report on Assessments of Yufind

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Usability process

• Assess current behavior
• Conduct usability protocol testing
• Implement changes and re-assess
• Determine standards & priority functionality
Collecting evidence from Orbis log files.
Log file line

12/2/07 20:06  20071202200646

Title Index

TALL  JOHN DOGGET JNR  0
Log file sample descriptive data

• Most common search: title (41.8%) followed by keyword (31.4%)
• Average search phrase is 2.5 words long
• Most common phrase searched is united states
• Most common number of hits: 0 (21.4% )
Examples of title searches

- BOOKS ON PHOTOGRAPHY?
- ALABAMA 2004?
- PATHOPHYSIOLOGY CHILDREN?
- JOHNSON, JAMES?
- INTRODUCTION TO AFRICAN AMERICAN STUDIES: A READER?
Why do title searches get 0 hits?

<table>
<thead>
<tr>
<th>Title 0 hits sample</th>
<th>Number in class</th>
<th>Percent of all 0 hits (N=506)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic or keyword</td>
<td>108</td>
<td>21.3%</td>
</tr>
<tr>
<td>Misspelling</td>
<td>93</td>
<td>18.4%</td>
</tr>
<tr>
<td>Author or person</td>
<td>87</td>
<td>17.2%</td>
</tr>
<tr>
<td>Correct no holdings</td>
<td>69</td>
<td>13.6%</td>
</tr>
<tr>
<td>Close</td>
<td>67</td>
<td>13.2%</td>
</tr>
<tr>
<td>Foreign language</td>
<td>32</td>
<td>6.3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>27</td>
<td>5.3%</td>
</tr>
<tr>
<td>Article</td>
<td>14</td>
<td>2.8%</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
Decreasing search types 2007-2008
Some conclusions from log analysis

• Patrons commonly use field specific searches unsuccessfully
• Majority of searches don’t use catalog metadata beyond title (decreasing)
• Errors happen a variety of ways and current Voyager system is not helpful in avoiding those errors
Next Gen OPAC -- Yufind
After deciding to implement Yufind, use data from log files to help design usability tests.
Creating usability tests for Yufind

• Two opportunities for tests:
  – medical implementation of subject-based ebooks display
  – alternative interface for catalog (aimed at undergraduates)

• Objective: Would the participant see and choose facets? (more than 26% of the time)

• Objective: Would the participant use facets successfully?
Questions

- Find books within a set by a particular author (John Adams).

- In a set of books about healthcare, find some that are about healthcare reform.

- Within a subject-based display of ebooks find a topic-based subset.
Facets: key findings

• Were seen and sometimes used but
  – Subsets didn’t always make sense
  – Hard to navigate (not alphabetical)
• Little use of call number facet
• Some preferred search refinement to facets
• Participants noted potential usefulness: format, language, and topic facets
Did facets increase metadata use? YES

<table>
<thead>
<tr>
<th>Opportunities for facet use</th>
<th>Facet Use</th>
<th>Success</th>
<th>Search Refinement with 2nd search Use</th>
<th>Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (question 2a undergraduate)</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5 (question 5a undergraduate)</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8 (question 5 medical)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>All opportunities=18</td>
<td>9</td>
<td>7</td>
<td>50.0%</td>
<td>38.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>1</td>
<td>44.4%</td>
</tr>
</tbody>
</table>
Relevance ranking and facets

Great Depression and New Deal
Primary sources
by Hanes, Sharon M. Published 2003
Call Number: E806 .H317X 2003 (LC)
Located: SML, Stacks, LC Classification
  Available
  Book

Add to favorites

Regulation, Market Structure, and the Bank Failures of the Great Depression
Published 1998
Online Content
  Electronic

Add to favorites

Agriculture during the Great Depression
Published 1990
Call Number: HD1765 A34X 1990 (LC)
Located: SML, Stacks, LC Classification
  Available
  Book

Add to favorites

Education & the Great Depression: lessons from a global history
Education and the Great Depression

Add to favorites

Narrow Search

Author
Dofee, Daniel, 1861-1731. (297)
Mather, Cotton, 1663-1728. (110)
Woodhouse, John. (82)
Lover of their precious souls. (76)
Edwards, Jonathan, 1703-1758. (69)
more...

Call Number
D - World History (3400)
\ (3361)
P - Language and Literature (2196)
B - Philosophy, Psychology, Religion (2185)
H - Social Science (2079)
more...

Topic
World War, 1914-1918 (976)
Bible (875)
Astrology (650)
Almanacs, English (626)
Ephemerides (534)
more...
Best practices for facets

• Implement a more narrowly focused search
• Suppress some facets pending metadata cleanup
• Display facets on left
• Develop consistent terminology between different applications
• Consistent order of display
Survey (83 respondents)

• 79.3% found the results they expected and 75.6% found what they needed
• 41 respondents or 50% tried facets. Of these, 85.0% were positive about the results.
• 57.8% of respondents preferred Yufind to Orbis
• System Usability Score = 66
First place you would look to find a book?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orbis</td>
<td>33</td>
<td>40.2%</td>
</tr>
<tr>
<td>Yufind</td>
<td>29</td>
<td>35.4%</td>
</tr>
<tr>
<td>Google</td>
<td>14</td>
<td>17.1%</td>
</tr>
<tr>
<td>Amazon</td>
<td>4</td>
<td>4.9%</td>
</tr>
<tr>
<td>Worldcat</td>
<td>2</td>
<td>2.4%</td>
</tr>
<tr>
<td>Comments</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total answers</strong></td>
<td><strong>82</strong></td>
<td></td>
</tr>
</tbody>
</table>
Standards & priority functionality

Staff need to engage with findings of usability testing and current behavior in Orbis to decide best practices and to build empathy for user experience.
Patron empowerment

• Direct export to a variety of tools, including Refworks/Endnote
• Recommendations and weighted ranking based on circulation stats/reserves
• Display—sort or limit results, change number of results displayed per page, display for printing, save records to account
• Permanent links
Error handling

- Spelling suggestions
- Search suggestions/hints using authority records (high priority)
Effective and efficient search

• Integration with circulation/ordering/ILL
• Group similar results
• Provide alternative navigation through facets
• Visual shelf list
Usability process

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Slides and Findings Available

library.yale.edu/libepub/usability/studies/dlf_user.ppt
library.yale.edu/libepub/usability/yulstudies.html
www.library.yale.edu/245

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