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From the Selected Works of Win Shih

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From OPAC to library search engine

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Introduction

Traditional library OPAC has not been able to keep up with the shifting expectations of net generation users in an era predominated by Internet Search Engines. A recent survey on current and future integrated library systems shows that over 75% of respondents do not “love” their OPACs [1]. Karen Schneider, in her blog, incisively and thoughtfully points out numerous deficiencies of conventional OPACs and integrated library systems, including lack of relevancy ranking, customization, facet navigation, as well as an inability to integrate the ever-expanding gamut of independent electronic resources [2].

The Next Generation of Library “Find Tool”

With the ongoing development of harvesting technologies and increased network capacities, we are seeing an emerging endeavor and introduction of new library “finding tools” that collectively address the inefficiency of legacy systems. Furthermore, there is an evolving consensus from librarians and ILS vendors alike regarding the role and key features of the new systems. As the information hub of library resources, the new system features:

- A simple search box with key word search as default
- Federated search of a range of library resources - either subscribed resources, library catalog, or locally produced resources (institutional repository, electronic theses and dissertations, digital repository, etc.)
- Relevancy ranking and facet-grouping of results
- Shortcuts to full text via link resolvers
- Web 2.0 and social networking features

Let’s review a number of innovative library search engines to illustrate these features:

1. LibraryFind (<http://libraryfind.org/>)
Developed by librarians at Oregon State University Libraries and funded by LSTA grant, this open source metasearch application is built with “Ruby on Rails” and includes an OpenURL resolver. To make the user’s search process simpler and more efficient, the developers adopt a two-click design principle: one click to find, one click to get. The application supports both Z39.50 broadcast search and Open Archives Initiative metadata harvesting. At the demo site, the system automatically searches two EBSCO databases (Academic Search Premier and Business Source Premier) and Oregon State University Libraries’ catalog. Facet-result display allows users to navigate their findings by format, subject, author, or resource. It also offers spell-checking capability. As an open source application, LibraryFind is free for libraries to download, experiment, and contribute.
2. OCLC WorldCat Local
(<http://www.lib.washington.edu/>; <http://smcl.org/external.html?www.smcl.org/worldcat.html>)
Jointly developed by OCLC and University of Washington Libraries, WorldCat Local features a single search box which not only tromps through the search library’s own holdings but also collections from the library’s consortium, holdings of libraries worldwide, along with four bibliographic databases (ERIC, MEDLINE, GPO, and ArticleFirst). Unlike other federated search engines reliant on Z39.50 to simultaneously search multiple databases, OCLC merges all 30 million citations from the four above-mentioned databases into the WorldCat database and thus eliminates the hassle of long waiting times and duplicate citations. Search results are relevance ranked and grouped into “facets,” such as language, format, and year of

publication, allowing users to delve deeper into their result set. Most marvelously, the system can interact with your library's ILS (currently supporting Ex Libris's Voyager, Innovative Interfaces, and SirsiDynix), so patrons will be able to see the availability of an item and request it directly via their library's circulation system. For journal articles, the system at University of Washington works well with its link resolver with a couple clicks to full text.

3. LaneConnex (<http://lane.stanford.edu/index.html>)
The Knowledge Management Center at Stanford University School of Medicine has a very unique approach to aggregate user demands with the library's digital information vault. Based on Java technology and designed to find and retrieve information with a single search, the LaneConnex knowledge portal tightly integrates both local and external resources so patrons do not need to worry about which database they should search. Results are grouped by material type (ejournals, ebooks, videos), sources (Pubmed, library catalog, Google), and discipline (bioresearch, clinical, pharmacy, history, and pediatrics) and are displayed by relevancy. For example, a search of "nature" will locate the journal "Nature" as its first result.

Vendors "Playing Catch-Up"

Of course, ILS vendors are likewise aggressively developing their version of the next generation of library finding tool. The big three ILS vendors are racing to make their products available on the market by year-end 2007. You can perform your own test drive by following the links below:

1. Innovative Interfaces, Encore: (<http://ukty-mt.iii.com/iii/encore/app>)
2. Ex Libris, Primo:
(http://alphasearch.library.vanderbilt.edu/primo_library/libweb/action/search.do)
3. SirsiDynix: (http://ibistro.sirsi.com/uhtbin/cgisirsi/x/0/57/49?user_id=ILINK)

Conclusion

In his blog, Eric Lease Morgan states laudably that the next generation of library catalog is "a transparent system enabling library patrons to get their work done more quickly and efficiently." It will be a "useful tool for getting an education and increasing their sphere of knowledge." [3] Hopefully, such new library search engines are not merely a face-lift of the legacy system, but also smarter, more effective utilities facilitating user research processes and workflow. Their interoperability, reliability and scalability have yet to be tested thoroughly, but we seem to be off to a very promising start.

References

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3. Morgan EL. A "Next generation" library catalog – Introduction and Assumptions (part #2 of 5). [Web document]. 7 Jul 2006. [cited 2 Sep 2007]. <<http://litablog.org/2006/07/07/a-next-generation-library-catalog-introduction-and-assumptions-part-2-of-5/>>.