

The Future of the OPAC: Integrating the OPAC with Emerging Discovery Tools

Thomas T. Kaun
Library Media Teacher
Redwood High School
USA

This presentation will explore how the library catalogue, a tool with a long and distinguished history, is changing with the advent of the Internet. We, as library practitioners, know the power of the catalog to find information sources in library collections. But our users, who have become used to having some results regardless of what search terms they enter into Web search engines, are becoming increasingly frustrated with the current OPAC technologies. What are some of limitations of online library catalogues and in what ways are members of the information community and library automation vendors discovering ways of making local resources more available to our users? Information will be presented about recent studies of user behaviour as well as some commercial solutions to the problem of user/catalog interface.

Two Stories from the Real World

Earlier this year a teacher-librarian sent a plaintive query out to LM_NET, the listserv for librarians in schools asking whether there was any way to make library catalogs more like Google searching. Her request points out how our patrons, students and staff alike, have grown used to finding information directly by searching the Internet. The same, however, is not possible with most online library catalogs (OPACs). This report will describe some of ways that libraries are beginning to investigate ways to do exactly what this teacher-librarian wants to provide her patrons. It will also examine the challenges faced by library practitioners as we begin to merge the library's collections with the Internet.

Another story comes in the form of a letter to Peter Morville (<http://findability.org>):

Mr. Morville:

... I thought you'd like to know how I came to find Ambient Findability: About a month ago my 9th grade son started a school science project, and part of the required work was to prepare a bibliography. When I asked to see his work I was aghast to see that all of the references in the bibliography were found on the Web using Google. He had not even considered using a library for this task. I insisted that he needed to find sources that were known to be authoritative and that we would go to the library at once to research it. The library had not opened yet, so we went across the street to Barnes and Noble and went to the Science section to start looking for references. While there, I wandered into the Engineering section and found your book by happenstance, started reading it, and bought it before we left.

Because his subject was a bit unusual, I explained the importance of reference librarians and how they can help find materials to support research. We went to the library, introduced ourselves to the reference librarian, and subsequently found good quality information that he needed. Although he found the critical information he needed to form his hypothesis in a book, I don't believe he took that exercise seriously, and seems to think it's odd that Google isn't sufficient for academic work. Our next conversation on this subject will be about how free technology isn't a complete answer, just partial, and needs to be augmented by a variety of other media, including for-fee online services.

Google vs. the OPAC?

The issue, as I point out to my students when I'm nagging them to use our print materials accessed via our OPAC, is that we can't search inside of books very well (yet) like we can inside the material on the web. I think we all know both how both useful and inefficient the Internet can be. The Web recently reached something of a milestone when the 100-millionth website was accounted for. It's hard to explain how Google gets "about 194,000,000" hits when I search the terms civil and rights!

Nevertheless, we all know that our patrons, students and staff alike, claim Google to be the best search tool ever, even if they don't really find what they are looking for. And they maintain this stance even if the materials they find are useless or irrelevant.

Changes must come to our OPAC systems.

Our patrons are losing patience with our OPACs because, for obvious reasons, they cannot find something as easily as they can on the Web. Numerous studies have shown that users, including ourselves, would rather have something, of good quality or bad, rather than nothing when they are looking for information. When using the Internet we are immediately gratified by the results which are right in front of us. We don't have to go look for the information someplace else and in a format which is not as easily accessible.

An Important Report

In March of 2006 a report (Calhoun) was published by the Acquisitions and Bibliographic Access Directorate of the Library of Congress (U.S.) which describes the "destabilizing influence of the Web, widespread ownership of personal computers and rising computer literacy" as "creat[ing] an era of discontinuous change in research libraries...." The executive summary goes on to state: "[t]he catalog is in decline, its processes and structures are unsustainable, and change needs to be swift." The report analyzes the present situation, proposing assessments, a vision for the future and a plan for change. Although the report is addressed to the academic and business communities of the U.S. there are implications for school libraries as well.

So the question of how to design a web OPAC for today is a question of how to design an information service in a world rich with information services and filled with users who make information seeking — though not necessarily at libraries — part of their everyday lives.

“It's important for us to understand how millennials deal with information if we are to succeed in delivering our services to them. According to Schooley, millennials are ‘accustomed to receiving information quickly and from multiple sources in real time and processing it immediately. They have little tolerance for delays; expect Web pages to load immediately. They expect graphical, highly intuitive user interfaces.’ Millennials prefer social networking, online, real-time communications.” (Breeding, 2006)

Calhoun states that “[i]f one accepts the premise that library collections have value, then library leaders must move swiftly to establish the catalog within the framework of online information discovery systems of all kinds. Because it is catalog data that has made collections accessible over time, to fail to define a strategic future for library catalogs places in jeopardy the legacy of the world’s library collections themselves.” Although our rather small library collections may not seem too important in the big scheme of things, as our patrons see new technologies at work in larger public libraries, including our county and large city systems, they will begin to expect the same for our smaller collections. And if we want our smaller collections to be used as effectively as possible, we will need to provide better, more efficient and more immediate access to what is in them. Furthermore, we need to prepare our students going on to higher education for the more sophisticated catalogs they will use in an academic setting.

Web 2.0

Another key investigator examining how the Internet has challenged the way we use our online catalogs is Casey Bisson.

Bisson, a software developer and information technologist at Plymouth State University’s Lamson Library, points out the following: over 1.1 billion people across the globe have Internet access, 399 million in Asia alone (internetworldstats.com); ninety-four million people in the U.S. use the Internet on an average day and 80% of these Internet users believe the Internet is a reliable source of information. As he postulated in a 2006 presentation, Web 2.0 is about people. (Bisson, 2006b). He argues that libraries are rich with the stuff people would like to link to, but the architecture of our systems often fails us in making that possible. (Bisson, 2006a)

Four Challenges to Redesigning the OPAC

Bisson believes that there are four challenges to redesigning our OPACs to help our patrons find the information they seek. They are: usability, findability, interactivity, and architecture. I will explore the first three of these in this paper.

Usability

Why can’t our catalogs be as user-friendly as Amazon and Google? The challenges to usability include the fact that our catalogs require adherence to strict search algorithms; the metadata in our catalog databases is optimised for computer economy, not ease of use by our patrons; the inventory is the driving metaphor for our catalog systems (many catalogs started out as circulation systems before they became searchable by the public); and for the most part we are using catalogs which are very similar to those used 30 years ago.

The paradigm for usability needs to be a self-service model. It doesn't take much instruction to learn how to find an item on the Amazon website. Why should it take direct instruction for patrons to find materials in our catalogs and thus in our libraries? Uncontrolled vocabularies are the norm in searching online databases but tend to be very unproductive in searching our OPACs. In schools, we may have the time to teach our students to use the catalog in the most productive way, but should we, given the emergence of a new models of searching?

Our patrons have become used to finding something on the Internet to answer their questions. But our catalogs lead users not to answers, but to "potential paths to answers." (Bisson, 2006b) We must take advantage of the greater processing power at our disposal to develop better indexes, give searchers better information, shorten the path between question and answer, and enrich the catalog display with non-inventory information.

Findability

The next challenge is one which for lack of a better term we call findability—the ability of the user to find what they are looking for. With search engines, users find something almost every time they look, useful or not. The same, however, is definitely not true for our OPACs. Studies and experience have shown that patrons will frequently use whatever is easiest to find. "Findability precedes usability. In the alphabet and on the Web. You can't use what you can't find." (Morville). As professional librarians we have certainly come to realize that libraries don't have a monopoly on either knowledge or research tools. Although most users have access to many web-based tools, when using our catalogs they have made a conscious effort to find something in our libraries. It is up to us to make that search a fruitful one by making our materials as findable as possible.

We are not competing with the Internet, we are complimenting it. And we are also providing help in using the Internet. As materials become more digitized we will play an ever more important part in supplying the information as well.

A model for improved findability is the way in which Google Book Search and Google Scholar interact with WorldCat and online database providers to allow users to not only locate references to materials (like a traditional catalog) but to access the full text of those materials as well.

Interactivity

Web 2.0 centres upon user-generated content, including wikis, blogs, Flickr, iTunes, podcasting, YouTube, tagging and folksonomies. We must consider developing these interactivity tools in our OPACs. Web 2.0 is about empowering individuals and enabling them to add value to library collections.

For example, we might allow our patrons to add their own tags to catalog records, or encourage them to add their own reviews to books they have read in written form or podcasts. Interactivity also means showing the covers of books and opening them up to users so they have the opportunity to determine if the material will be worth the effort of searching for it in the physical collection.

Things Are Beginning to Change: The Example of AquaBrowser

In spring 2005, the California State Librarian convened a group of librarians in Sacramento to explore some of the new catalog technologies appearing in the market place. Much to my surprise I was the only school librarian present, even though the event was free of charge. I viewed presentations from futurists of the field and learned about such concepts as FRBR, federated searching, and XML. One of the most interesting products was a catalog interface called AquaBrowser Library developed by a Dutch company, MediaLab Solutions, and licensed in the U.S. to TLC.

The appealing feature of AquaBrowser is that it uses MARC records, supplied by whatever automation software is being used, to deliver more information to our users with its graphic methods and the arrangement of text in a way user-friendly way. AquaBrowser is an example of how catalog interfaces can help us to take better advantage of the resources in our own library collections by making them more accessible to our patrons.

AquaBrowser provides a screen divided in three columns. The left column is headed "Discover," the centre "Search," and the right "Refine." After the user enters a search term search term is surrounded by a "constellation" of related terms. In the centre column, the records retrieved by the search are listed. The records in this list can optionally be ordered by relevance, title, author or date. The right column lists the records in various groups like media type, author, subjects, locations, etc. Unlike traditional OPACs, the user has access to several different ways of pursuing and sorting information all on one screen.

Whether we use an interface like AquaBrowser or not we must find ways of making our catalogs and the information they point to ever more easy to use, make the rich resources they point to easier to find, and provide better ways to allow our patrons to interact creatively with that information.

References

- Bisson, Casey. (2006a). "The URLs from my Portland Talk." maisonbisson blog. <http://maisonbisson.com/blog/post/11325/>
- Bisson, Casey. (2006b) *Designing an OPAC for Web 2.0*
<http://homepage.mac.com/misterbisson/Presentations/IUG-2006May21.pdf> [access restricted]
- Breeding, M. (2006). "Technology for the next generation." *Computers in Libraries*. Medford, NJ: Information Today. Available online <http://www.librarytechnology.org/lrg-displaytext.pl?RC=12342>
- Calhoun, K. (2006). The changing nature of the catalog and its integration with other discovery tools. Washington, DC: Library of Congress. Available online: <http://www.loc.gov/catdir/calhoun-report-final.pdf>
- Morville, P. <http://findability.org>

Commercial sites to explore

AquaBrowser Library: <http://www.medialab.nl/>

WebFeat: <http://www.webfeat.org/>

Biographical Notes

Thomas Kaun is the library media teacher at Redwood High School in Larkspur (Marin County) California, USA. He has been a school librarian since 1974 serving in a variety of private and public (state) schools over the years as both a classroom and library media teacher. His library web site was the recipient of the Concord/IASL "Web Site of the Month" award and he was honored with his state school library association's Technology Award in 2006. Besides his basic cataloging class taken to get his Master's degree he is a self-taught cataloger who mourns the loss of required cataloging courses in library schools in the U.S.