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Thinking about Linking

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ONLINE DATABASES
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By Carol Tenopir

LINKING TO FULL TEXT THROUGH link resolver technology and the OpenURL standard has made electronic journals a cornerstone of library collections. Users expect that full text will always be a click or two away and it brings the library catalog, indexing and abstracting databases, and full text into an integrated system. The impact is great as major and smaller players embrace linking to all types of digital materials.

Google Scholar

In February 2005, Google Scholar began beta testing OpenURL. By May 2005, any library could link its own OpenURL resolver into the Google Scholar results list.

The importance of Google's acceptance and use of the OpenURL "cannot be overstated," according to Jill Grogg, electronic resources librarian at the University of Alabama Libraries, Tuscaloosa. Google Scholar becomes a guide to and an extension of the library's collection. In addition, Grogg says, "The giant among us all, Microsoft," has brought OpenURL linking into its academic search engine, Windows Live Academic. With both Google and Microsoft on board, Grogg believes "the acceptance of the OpenURL is well established, especially considering this technology existed less than ten years ago."

History of the OpenURL

The OpenURL was developed to solve the "appropriate copy" problem. Many libraries have access to multiple copies of articles by subscribing through aggregators or via the publisher. Linking allows libraries to define all of the possible links and best direct users.

Grogg explains that "localized control" and "standardized transport of the metadata" must be in place for linking. OpenURL has both. The library configures its resolver to match holdings (print and electronic), and it defines other applicable services it wants users

to see. The OpenURL standardizes the syntax for transferring metadata.

Digital switchboard

Metadata can be familiar bibliographic information (author, title, journal title, or ISSN) or it can be the Digital Object Identifier (DOI), which is a persistent, unique identifier. CrossRef assigns DOIs and includes more than 1600 publishers and societies. Participating publishers deposit DOIs and the corresponding URLs in the CrossRef database, which works as a digital switchboard connecting DOIs with appropriate URLs. Users are hidden from this complexity.

Local control is key

One of the main differences between direct linking and OpenURL linking is that OpenURL lets librarians manage all of their e-holdings in the link resolver. With direct linking, the local administrator must configure each content provider's links separately, usually via an administrative module.

While localized control has allowed libraries to serve their particular constituencies better, it also increases the workload for the local administrator (see

"Jeeves for Your Databases," *LJ* 5/1/06, p. 34–36). Link resolvers become even more appealing because they reduce the burden of maintaining holdings information for each content provider. There is still work to be done to standardize the one-time setup of each subscribed database with the library's resolver information.

OCLC and Openly Informatics

In January 2006, OCLC and Openly Informatics, Inc., announced OCLC's acquisition of Openly Informatics' assets, including its high-quality knowledge base. Openly Informatics was a pioneer in linking and the development of the OpenURL. Therefore, this partnership has the potential to be very fruitful, especially considering several other OCLC projects, such as the OCLC OpenURL Resolver Registry, OpenWorldCat, and eSerials Holdings.

> The ultimate goal is making the best full text always available and a user never hits a dead end

Openly Informatics is also heavily involved in another linking initiative, COinS, or ContextObject in Span (see *LJ netConnect*, p. 8–10). COinS is a good example of the extensibility and robustness of OpenURL 1.0. COinS allows web developers to embed bibliographic information. With a plugin, users can link from a web page to their appropriate copy.

Context-sensitive linking, particularly the OpenURL, lets users click on a link and go to full text or other desired information object. This requires cooperation among publishers, vendors, content providers, and libraries. The ultimate goal is a library system where the best full text is always available and a user never hits a dead end.

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