OpenURL

What all library staff should know

Overview

- The problem: too much stuff!
- The solution: openURL
- Basic terms
- How does this work?
- Link resolvers
- SFX
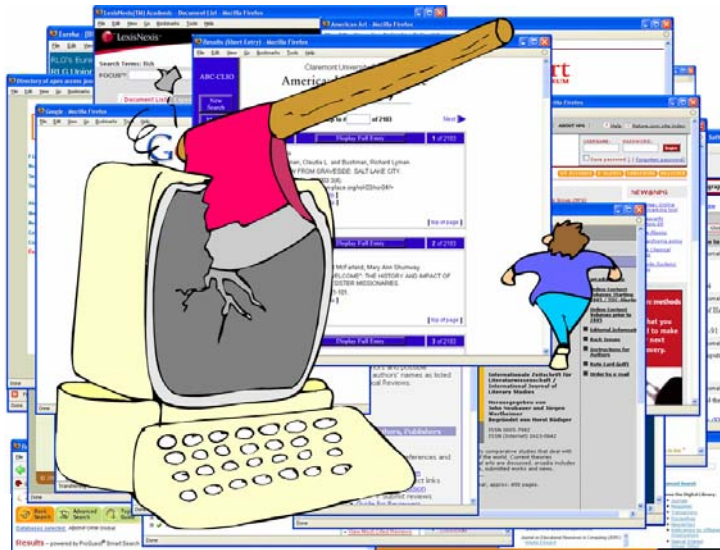- Article Linker
- More Information

The Problem

- Libraries often have dozens of A&I databases
- A&I databases, even library catalog not always aware of ejournal subscriptions
- Finding an item is not always straightforward
- Patrons want as few clicks as possible between citation and item

Libraries often have dozens of Abstracting and Indexing (A&I) databases; these databases often have links to the full text of articles, but are unaware of what publications the library has actually subscribed to. It's often difficult or too time-consuming for a library to reflect these holdings in their library catalog. Because of this, once a citation is in hand, finding that item is not always straightforward. Many libraries purchase A-Z lists of their electronic journal holdings from companies such as Serials Solutions; we also purchase MaRC records from Serials Solutions in an effort to make the catalog as complete a record as possible of our holdings.
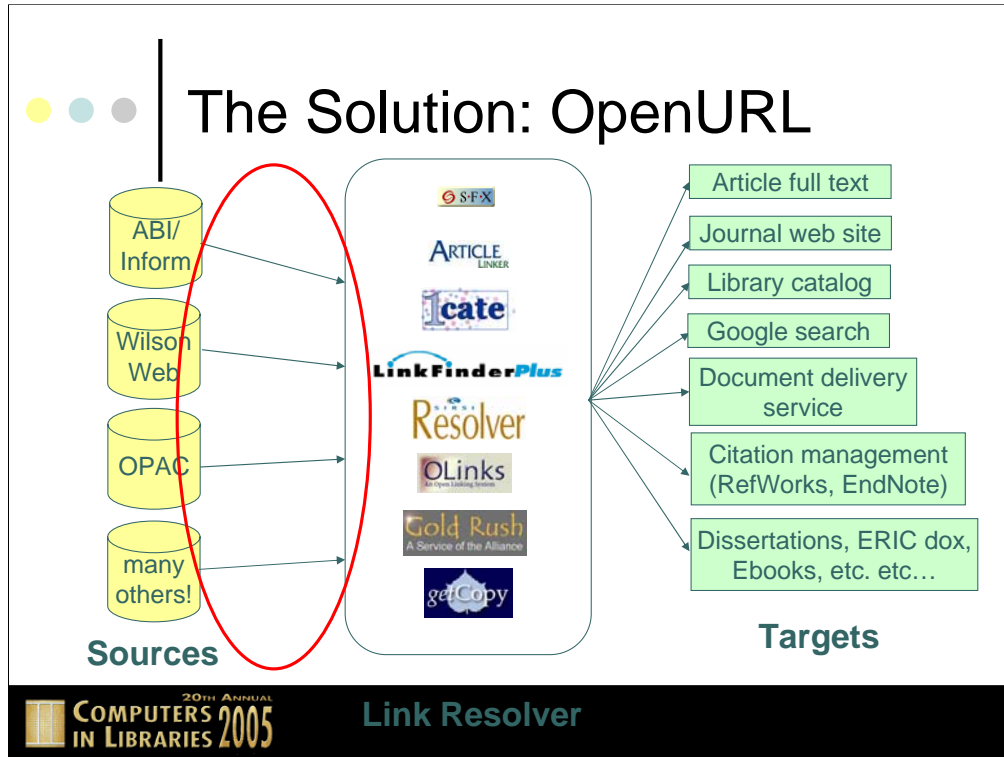
In today's Internet world, patrons want as few clicks as possible between (finally) identifying a citation that they want and getting to the full text of that item. It's sometimes even unacceptable if the library has the journal in print but not electronically—many users want electronic full text only. If an item can't be clicked to right away, it doesn't exist for some users.

Too much stuff…

…which can leave users frustrated.

The Solution: OpenURL

Sources | Link Resolver | Targets

- Article full text
- Journal web site
- Library catalog
- Google search
- Document delivery service
- Citation management (RefWorks, EndNote)
- Dissertations, ERIC dox, Ebooks, etc. etc…

Without OpenURL: a patron searches a source, which may or may not contain links to the target (or the target itself, e.g. fulltext); the patron takes that citation, then searches for the target in the library catalog, ejournal A-Z list, other databases, google, etc.

With OpenURL:

A patron searches a source, usually an A&I database and finds citations for items that are needed (targets). In between the sources and targets sits software called a Link Resolver or Link Server that accepts links (openURLs) sent by the sources and presents the user with links to individual targets.

Basic Terms

- *OpenURL* – A NISO standard (Z39.88), by which web links (URLs) are created containing metadata, allowing the linking directly to articles, journals, books and more.
- *Source* – a citation database where an image or link appears; this link is an openURL that points to a link resolver. There are many fewer sources than targets.
- *Targets* – the items listed in the results window: the full text dbs, Catalog, Ask-a-Librarian, Google.
- *Link Resolver* – software that interprets an OpenURL and creates links to targets.
- *Base URL* – the URL of a link resolver server.
- *Knowledgebase* – the database containing all the library's holdings, initially established by the library but usually maintained by the vendor of the link resolver.

How does this work?

○ **Step One**: the openURL is interpreted by link resolver:

http://ry6af4uu9w.search.serialssolutions.com /?SS_Source=3&genre=article&sid=ProQ:&at itle=Technology%20Trends%20for%20Intran et%20Librarians&title=Online&issn=0146542 2&date=11%2F01%2F2004&volume=28&iss ue=6&spage=45&SS_docid=0000007353162 91&author=Darlene%20Fichter

The URL on this slide is an OpenURL. Sort of daunting at first, but if we take a closer look…

Breaking down an OpenURL

- http://ry6af4uu9w.search.serialssolutions.com/?SS_Source=3&genre=article&sid=ProQ:&atitle=Technology Trends for Intranet Librarians&title=Online&issn=01465422&date=11/01/2004&volume=28&issue=6&spage=45&SS_docid=000000735316291&author=Darlene Fichter

- BaseURL: http://ry6af4uu9w.search.serialssolutions.com
- Article Title: Technology Trends for Intranet Librarians
- (Journal) Title: Online
- ISSN: 0146-5422
- Date: 11-01-2004
- Vol. 28, Issue 6
- Starting page 45
- Author: Darlene Fichter

I have highlighted pieces of the OpenURL that make up the citation for this article. This URL happens to be an OpenURL that points to our link resolver, which is Article Linker, by Serials Solutions (hence the Serials Solutions URL).

How Does this Work?

○ **Step two**: Link resolver checks the library's knowledgebase.

The Knowledgebase

- Created (entered) by the library, sometimes updated by the link server vendor (SFX, Article Linker)
- Contains holdings of individual electronic journal titles, collections of journals (e.g., JSTOR), and aggregated database content (e.g., InfoTrac, WilsonWeb, LexisNexis Academic)

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The knowledgebase is really the key to how all of this works. In order to create links to appropriate targets (i.e., full text of an article in a version of a journal that the library subscribes to), the link resolver must know all of the library's electronic holdings. Library staff use a generally web interface to add all the individual ejournal titles, collections, and databases with aggregated content. SFX and Article Linker allow the customization of holdings dates, as well, to allow further tweaking of links. If the data in a library's knowledgebase is not correct, then links could be created to journals that the library does not subscribe to, or links to legitimate targets could be omitted.

Since OpenURL link resolver vendors generally rely on the A&I database vendors for their full text coverage lists, there are still instances where bad or erroneous links are generated. This is often a result of a publisher pulling their full text out of a database and is usually resolved with an email to the maintainer of the data (in our case, Serials Solutions).

Some libraries are adding their print holdings to their knowledgebase in order to provide their users with a better idea of their journal holdings. UC San Marcos includes a lookup into their catalog on their SFX menu that displays print holdings alongside the electronic holdings, eliminating having to maintain this data inside the knowledgebase itself.

How does this work?

○ Step **three**: the link resolver determines if the data in the OpenURL meets the target's minimum requirements for creating an item-level link.

SFX calls item-level links "object-level" links.

Targets' Minimum Requirements

Journal: E-doc (Global ed.)
ISSN: 1544-3647
Article: Let's Get together
Volume: 17 Issue: 2 Page: 32
Date: 2003

Article Linker Results Page

Data Needed to Create Article Link for Business Source Premier
✓ Journal Title
✓ ISSN
✓ Article Title
✓ Volume
✓ Issue

① Minimum Requirements Met
CREATE ARTICLE LINK

Article is available here:

Coverage dates	Links to content	Database:
05/01/2003 - present	① Article Journal	Business Source Premier
2003 - 2004	②	ABI/INFORM (Selected Full Text)
09/01/2003 - present	③ Article	Wilson Select Plus

Data Needed to Create Article Link for Wilson Select Plus
✓ Journal Title
✓ ISSN
✓ Article Title
✓ Date -YYYY

③ Minimum Requirements Met
CREATE ARTICLE LINK

Data Needed to Create Article Link for ABI/INFORM
✓ Journal Title
✓ ISSN
✓ Article Title
✓ Issue
✓ Volume
✗ Author
✗ Date - YYYY-MM-DD

② Minimum Requirements NOT Met
DO NOT CREATE ARTICLE LINK

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Thanks to Julia Makous, Serials Solutions

Each target (often within a database itself) has minimum requirements that must be met before an item-level link can be established. This diagram illustrates three targets. In target #1, Business Source Premier needs five pieces of information in order to create an item-level link that goes directly to this article. In this case, the minimum requirements are met, and an item-level link is created (the link is labeled "article" under the heading "Links to Content"). In scenario #2, seven pieces of information are required, and you can see by examining the citation in the upper left-hand corner that the author's name is missing, and the date of the article is not in the format required by ABI/Inform, therefore there is no item-level link. In scenario #3, the four pieces of information required by Wilson Select Plus are met, and an item-level link is created.

The main point: the same information can result in different level links even though the OpenURL is good, because of different databases' minimum requirements for an item level link (called "linking syntax.")
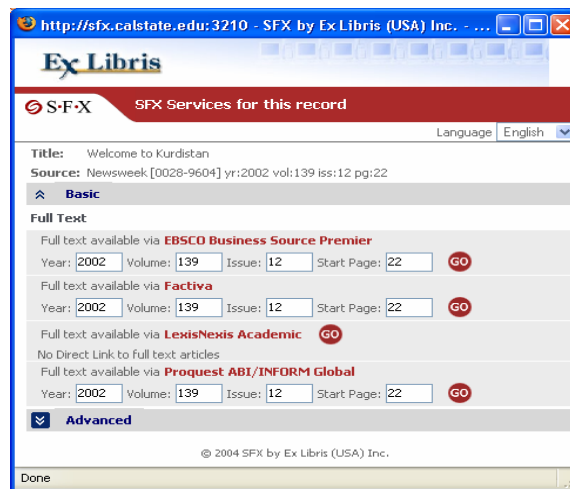
How Does this Work?

- **Step four**: Link resolver creates links to targets and presents them to the user in menu form.

SFX
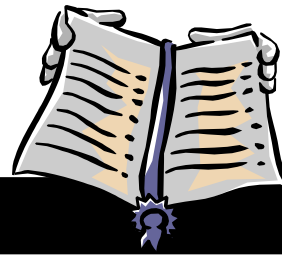
- Sample menu
- Basic services
- Advanced services

Demo: http://www.exlibrisgroup.com/sfx_it.htm

Click the image to go to the citation on the web. This is a screen shot from a demo site of SFX version 3. They have divided the window into "Basic" services, which generally comprise links to full text, and "Advanced" services, which include links to search a library catalog for the print version of this title, links to document delivery services, links to export this citation into citation management software, and many others. Nearly everything on this screen is customizable by the subscribing library.

Article linker

- Sample results screen
- Full text links
- Custom links

Demo: http://www.serialssolutions.com/alsamples.asp

Click on the image to visit this citation on the web.

Instead of labelling their services "basic" and "advanced," Serials Solutions uses "full text links" (since that's the primary purpose of Article Linker) and "custom links" (to reflect the complete customizability of this section). This is a screenshot of an Article Linker (Get this Item) results screen from our installation of Article Linker, at The Libraries of The Claremont Colleges. Custom links that we have chosen to provide to users include searches of our library catalog (Blais) and a union catalog to which we belong (LINK+), links to other library catalogs, Google searches, a link to our interlibrary loan form, an Article Linker FAQ, and a problem report form. Nearly everything you see on this screen is customizable. We use our own Cascading Style Sheet (CSS) so that these results look like any other page from our web site.
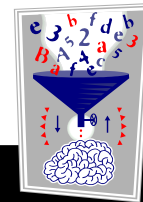
Link Resolvers

- Many choices . . .
- SFX was first
- Many major ILS vendors sell a link resolver (Sirsi, III, Endeavor)
- See http://library.ucf.edu/Presentations/2004/OpenURLChoices/ for a good comparison

The OpenURL standard was developed by Oren Beit-Arie and Herbert Van de Sompel and was later licensed to Ex-Libris as SFX. In an effort to integrate ejournal collections in with other library holdings, most major integrated library system vendors have a link resolver (for purchase). Athena Hoeppner and Marlene Porter offered a talk at Internet Librarian 2004 comparing the features and cost of most major link resolvers; see above for a link to the presentation.

More Information

- The standard:
  http://library.caltech.edu/openurl/
- These slides:
  http://athena.libraries.claremont.edu/~cindi/
- Random bits about openURL:
  http://openurl.blogspot.com

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The blogspot blog linked to above is really a list of bookmarks that I found myself using while implementing Article Linker at my library and while putting together presentations on OpenURL.

Thank you!

○ Slides:
  http://athena.libraries.claremont.edu/~cindi

  Cindi Trainor
  Director, Library / Information Technology
  The Libraries of The Claremont (CA) Colleges
  AIM or Yahoo: cinditrainor