Delivering E-Resources with LibX

Annette Bailey
Newman Library, Virginia Tech
March 24, 2006
Delivering E-Resources with LibX

- LibX is a localized Firefox extension that integrates access to electronic resources into the browser
- Motivation – why do we need it?
- Background – why did we build it?
- Demonstration – what does it do?
- Editions – how to get one for your library?
The Age of Google

• Study by Fast & Campbell 2004
  – *I still like Google: university student perceptions of searching OPACs and the web*

• Tampa Tribune article July 11, 2005
  – Professors frustrated with students relying solely on Google for research
  – Students respond that using the library is “work”
What Users May Not Know About Google

• Google does not vet sources
• Google’s page ranking algorithm does not reflect relevance
• Google lacks metadata
• Google does not provide access to all possible sources (e.g., print holdings)
• Google does not know about local resources
What Users Like About Google

• Google is easy to use and convenient
  – Handles queries robustly
• Google is a one stop information resource
  – Web, Print, News, Scholar
• Google is fast and available 24/7
  – Search is integrated in most browsers
Our Challenge

• Can librarians provide patrons with resources that are
  – Relevant
  – Authoritative
  – Complete
  – Accessible

• while providing the ease of use, integration, and availability of modern search engines?
LibX History

• Idea developed in summer of 2005
• Researched existing library toolbars & extensions, scripts, bookmarklets,…
• Found a number of toolbars
  – FASTJack, HALbar, etc.
• Web localization services
  – Library Lookup project (Bookmarklets, Greasemonkey scripts)
  – WAG The Dog project

However…
LibX History (cont’d)

• Existing toolbars were not adaptable (or adoptable!) for use by other libraries
  – Or it wasn’t easy to do so

• Existing toolbars were limited in functionality

• We wanted an easily adaptable infrastructure on which to deliver a wide variety of services
LibX

• Provides shortcut to library resources
• Uses Firefox browser extension technology
  – Integrated into the browser’s user interface
  – Installed on the client-side
What LibX Provides

• Direct Access to OPAC(s)
  – Integrated toolbar
  – Smart context menu

• Direct access to OpenURL resolver to find appropriate copy
  – Directly via toolbar or indirectly through Google Scholar

• Localization
  – Research companion that “hints” at library resources
  – Support for COinS
OPAC Access

• Toolbar User Interface
  – Supports single & multi-term searches
  – Not intended to replace “advanced search page” – captures common search pattern
  – User can set display preferences

• Right-click context menu
  – Adapts to selections

• Support of different OPACs
  – Millenium, Dynix/Horizon, Voyager, Aleph
  – Configurable to support multiple OPACs simultaneously
Demonstration 1

Toolbar, Context Menus
OPAC Toolbar

- Expands automatically for multi-term searches
- Offers commonly used search types:
  - Keyword, author, title, isbn, call number
### KEYWORDS (1-12 of 17)

<table>
<thead>
<tr>
<th>1</th>
<th>Digital libraries / William Y. Arms.</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call number</td>
<td>Status</td>
</tr>
<tr>
<td></td>
<td>Z692.C65 A76 2000</td>
<td>Check Availability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Libraries, the Internet, and scholarship : tools and trends converging / edited by Charles F. Thomas</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call number</td>
<td>Status</td>
</tr>
<tr>
<td></td>
<td>Z692.C65 L535 2002</td>
<td>Check Availability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>Perceptions of libraries and information resources : a report to the OCLC membership / [principal co</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call number</td>
<td>Status</td>
</tr>
<tr>
<td></td>
<td>2721 .P47 2005</td>
<td>Check Availability</td>
</tr>
</tbody>
</table>
OPAC Toolbar (2)
Context Menu
<table>
<thead>
<tr>
<th>Location</th>
<th>Call No.</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newman 3rd Floor</td>
<td>PS3557.A3519 A84 2001</td>
<td>DUE 04-11-06</td>
</tr>
</tbody>
</table>

**Author**  
Gaiman, Neil.

**Title**  

**Publication info.**  

**Call no.**  
PS3557.A3519 A84 2001

**Edition**  
1st ed.

**Description**  
465 p. ; 25 cm.

**Subject**  
National characteristics, American -- Fiction.  
Spiritual warfare -- Fiction.  
Ex-convicts -- Fiction.  
Bodyguards -- Fiction.  
Widowers -- Fiction.

**ISBN**  
0380973650 (alk. paper)
Nested Context Menu
Adaptive Context Menu
**Result page:**

<table>
<thead>
<tr>
<th>Location</th>
<th>Call No.</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newman 3rd Floor</td>
<td>PS3554.I33 Z63 2005</td>
<td>DUE 05-17-06</td>
</tr>
</tbody>
</table>

**Author:** Didion, Joan  
**Title:** The year of magical thinking / Joan Didion.  
**Call no.:** PS3554.I33 Z63 2005  
**Edition:** 1st ed.  
**Description:** 227 p. ; 21 cm.
Display Preferences & Links

- Users can set preferences on how results should be displayed
- Libraries can configure links that are being displayed to users
OpenURL & Appropriate Copy

How do we link users to the appropriate copy provided by our OpenURL resolver?
OpenURL Access Options in LibX

- Direct Access to OpenURL via Scholar “Magic Button”
- Direct Access to Scholar
- Direct Access via Toolbar
- Journal Title Search via SerSol or SFX
Demonstration 2

OpenURL Access &
The “Magic Button”
OpenURL Access via Scholar

Source: http://www.cchem.berkeley.edu/rgbgrp/recentpub.html
March 24, 2006 Annette Bailey - Delivering E-Resources with LibX 26

Search Criteria:
Synthesis of a first-row transition metal parent amido
Article: complex and carbon monoxide insertion into the amide N-H bond.
Author: Fox, Daniel
Journal: Journal of the American Chemical Society
Volume: 125 Issue: 30 Page: 8984 Date: 2003-07-30
PMID: 15369333

Step 1: Your article is available at these links:

Coverage Range: 1996 - present
Links to content: Journal American Chemical Society Web Editions
Resource: Publisher via CrossRef

More full-text options:
Synthesis of a First-Row Transition Metal Parent Amido Complex and Carbon Monoxide Insertion into the Amide N-H Bond

Daniel J. Fox and Robert G. Bergman
J. Am. Chem. Soc.; 2003; 125(30) pp 8984 - 8985; (Communication) DOI: 10.1021/ja035707a

All users may click on the [Abstract] link to view the abstract of this article. If you are a subscriber, you may click on the [HTML] or [PDF] link to view the article. If you are not a subscriber, you may purchase and download the PDF version of the article using your credit card by clicking on the [Purchase] link.
LibX matched this hit with selected query.
OpenURL Access via Scholar (2)

OpenURL can lead user to print resources if no electronic copy is available


Source: http://people.cs.vt.edu/~ltw/shortvita.html
Search criteria:

Article: Convergence of trust region augmented Lagrangian methods using variable fidelity approximation data
Author: Rodrigues, JF
Journal: Structural Optimization  ISSN: 0934-4373
Volume: 15  Issue: 3-4  Page: 141  Date: 1998
DOI: 10.1007/BF01203525

No direct links were found for the full-text of this article.

Please continue to step 2.

Step 2: Search Addison, the catalog, for print or online holdings.

Search Library Catalog by title by ISSN go to the main catalog page

Step 3: If you get no catalog results request an Interlibrary Loan

Request the item through Interlibrary Loan (ILLiad)
**Title**  
Structural optimization.

**Publication info.**  
Berlin : Springer-Verlag, 1989-

**Call no.**  
TA658 .S65

**Call No.**  
TA658 .S65

**Location**  
Newman Library

**Holdings**  
v. 1-18 1989-Dec. 1999 STACKS

<table>
<thead>
<tr>
<th>Location</th>
<th>Call No.</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newman 5th Floor</td>
<td>TA658 .S65</td>
<td>V. 17</td>
</tr>
<tr>
<td>Newman 5th Floor</td>
<td>TA658 .S65</td>
<td>V. 18</td>
</tr>
</tbody>
</table>

**Description**  
18 v. : ill. ; 28 cm.

**Frequency**  
Quarterly

**Publication date**  
Vol. 1, no. 1-

**Note**  
Title from cover.

**Indexed in:**  
- Computer & control abstracts 0036-8113 Mar. 1990-
- Electrical & electronics abstracts 0036-8105 Mar. 1990-
- Physics abstracts 0036-8091 Mar. 1990-
Localization via LibX

- LibX enriches web pages before they are displayed to the user
- Inserts hyperlinked “cues” that point at local library resources
  - E.g., amazon.com page points at library record of same book
- Implemented for: google.com, yahoo.com, bn.com, NY Times, Books in Print, …
- Includes support for COinS (ocoins.info)
Demonstration 3

Localization using Cues
Cues on Amazon
<table>
<thead>
<tr>
<th>Location</th>
<th>Call No.</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newman Popular Reading</td>
<td>Browse E524</td>
<td>DUE 04-05-06 +1 HOLD</td>
</tr>
<tr>
<td>Newman 2nd Floor</td>
<td>E208 .M396 2005</td>
<td>DUE 04-14-06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Result page: 

Author: McCullough, David G. 
Title: 1776 / David McCullough. 
Call no: E208 .M396 2005
New York Times Book Review

Mark Caldwell, author of "New York Night."

New York Night: The Mystique and Its History
By Mark Caldwell
404 pages. Scribner. $30...

University and the author of "A Short History of Rudeness," never quite gets his arms around it. For long stretches it is not clear whether he's writing a socio-economic history of New York, a specialized study of nightlife and entertainment, or a series of evocative nighttime tableaus. Sometimes he does one, sometimes another and sometimes all three
New York Night: The Mystique and Its History / Mark Caldwell.


F128.3 .C35 2005

Location: Newman 3rd Floor
Call No.: F128.3 .C35 2005
Status: AVAILABLE

Description: viii, 404 p.; 24 cm.

Includes bibliographical references (p. 378-390).

New Amsterdam noir: the dark nights of Dutch Manhattan -- Battle: watch nights; cities before the afterendors; from Bake...
Google
A cross-scalar validation study of the motivations of backcountry hikers in Shenandoah National Park

Call number: LD5655.V8 1980.D398
Status: Check Availability
Format: BOOK

The trails of Virginia: hiking the Old Dominion / Allen de Hart.

Call number: GV199.42.V8 D4 2003
Status: Check Availability
Format: BOOK
Try LibX!

- LibX is available for your library!
- It’s nifty
- It’s free
- It’s Open Source
- Go to http://libx.org for more information
Currently Deployed Editions
Future Work

• Edition builder interface
  – Currently building an extension requires creating a config file which must be uploaded and checked
  – Goal: develop a wizard-type web interface where libraries can build a LibX edition interactively

• Create a LibX plug-in for Internet Explorer
Questions?

• Thank you from the LibX Team

Annette Bailey
Godmar Back
Kiri Goldbeck

libx.org@gmail.com
Additional Material
LibX & Privacy

• Key goal: protecting LibX users’ privacy
• Users do not reveal more information than they would if they used the library catalog
  – Exception: Referrer URL
• Tenet: Do not run queries unless user explicitly clicks on a link
  – E.g., no automatic holdings checking if user visits amazon
• Trade-off Privacy/Convenience
LibX & Security

• Firefox extensions are trusted
• Users must trust that extension is not malicious
• LibX does not support user-provided scripts
  – More secure than Greasemonkey
• Source code is available for anybody to inspect
• Future: sign extensions