

Delivering E-Resources with LibX

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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

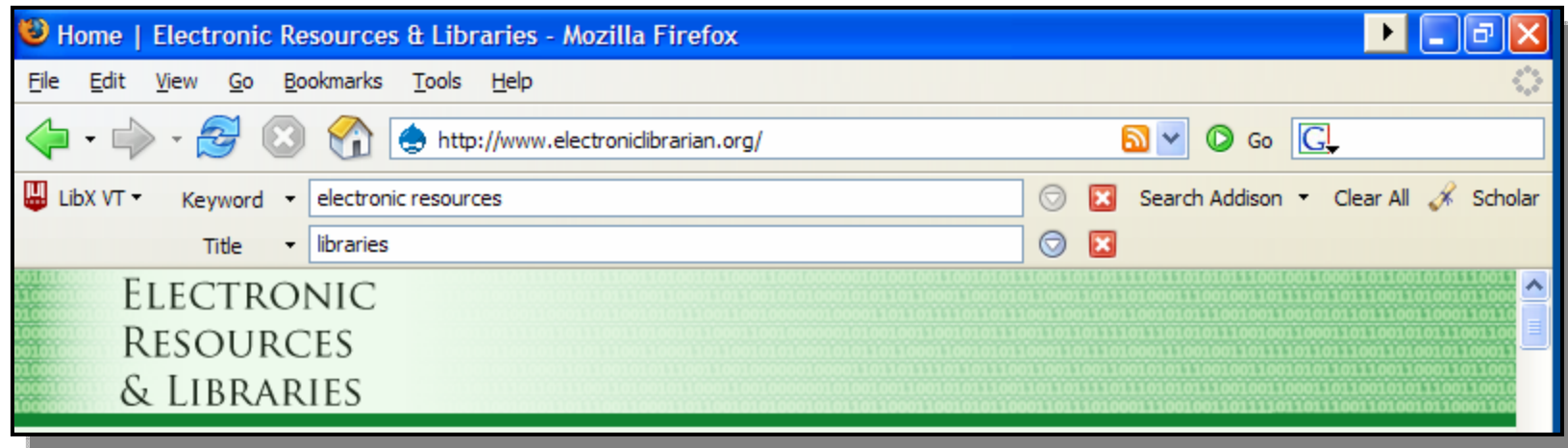
OPAC Access

- 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

Virginia Tech Libraries /All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/X?SEARCH=(electronic%20resources)+and+t: Go


LibX VT Keyword electronic resources Title libraries Search Addison Clear All Scholar

Home | Electronic Resources & Libraries Virginia Tech Libraries /All Locations


Result Page 1 2 Next

Save Marked Records Save All On Page


KEYWORDS (1-12 of 17)

1 ☐ Save  **Digital libraries / William Y. Arms.** 2000

Call number	Status	Format
Z692.C65 A76 2000	Check Availability	BOOK

2 ☐ Save  **Libraries, the Internet, and scholarship : tools and trends converging / edited by Charles F. Thomas** 2002

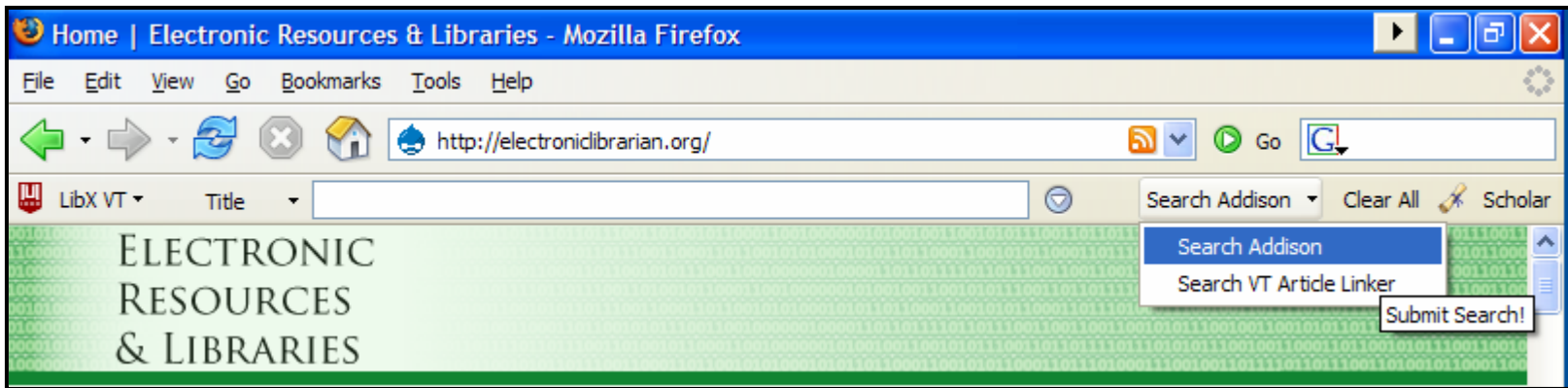
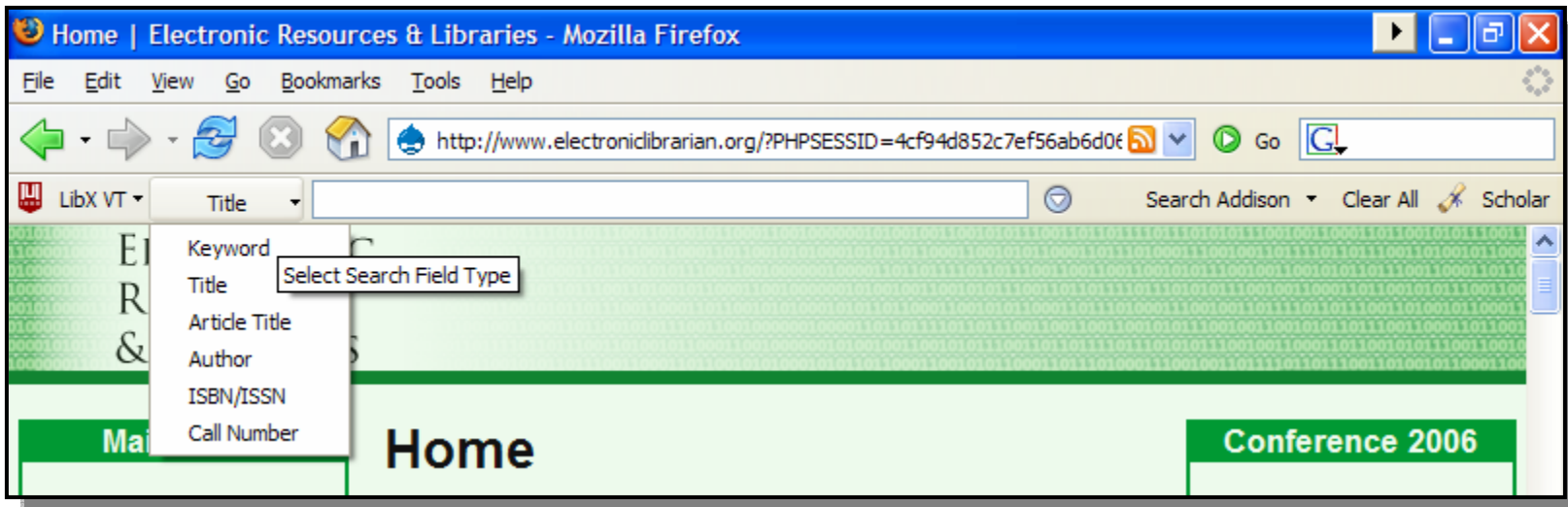
Call number	Status	Format
Z692.C65 L535 2002	Check Availability	BOOK

3 ☐ Save  **Perceptions of libraries and information resources : a report to the OCLC membership / [principal co** 2005

Call number	Status	Format
Z721 .P47 2005	Check Availability	BOOK

Done

OPAC Toolbar (2)



Context Menu



Virginia Tech Libraries /All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/?searchtype=t&searcharg=American%20Gods

LibX VT Keyword Search Addison Clear All Scholar


NG Neil Gaiman - American Gods Virginia Tech Libraries /All Locations

Author [Gaiman, Neil.](#)

Title **American gods : a novel / Neil Gaiman.**

Publication info. New York : W. Morrow, c2001.

Call no. PS3557.A3519 A84 2001



Location	Call No.	Status
Newman 3rd Floor	PS3557.A3519 A84 2001	DUE 04-11-06

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)

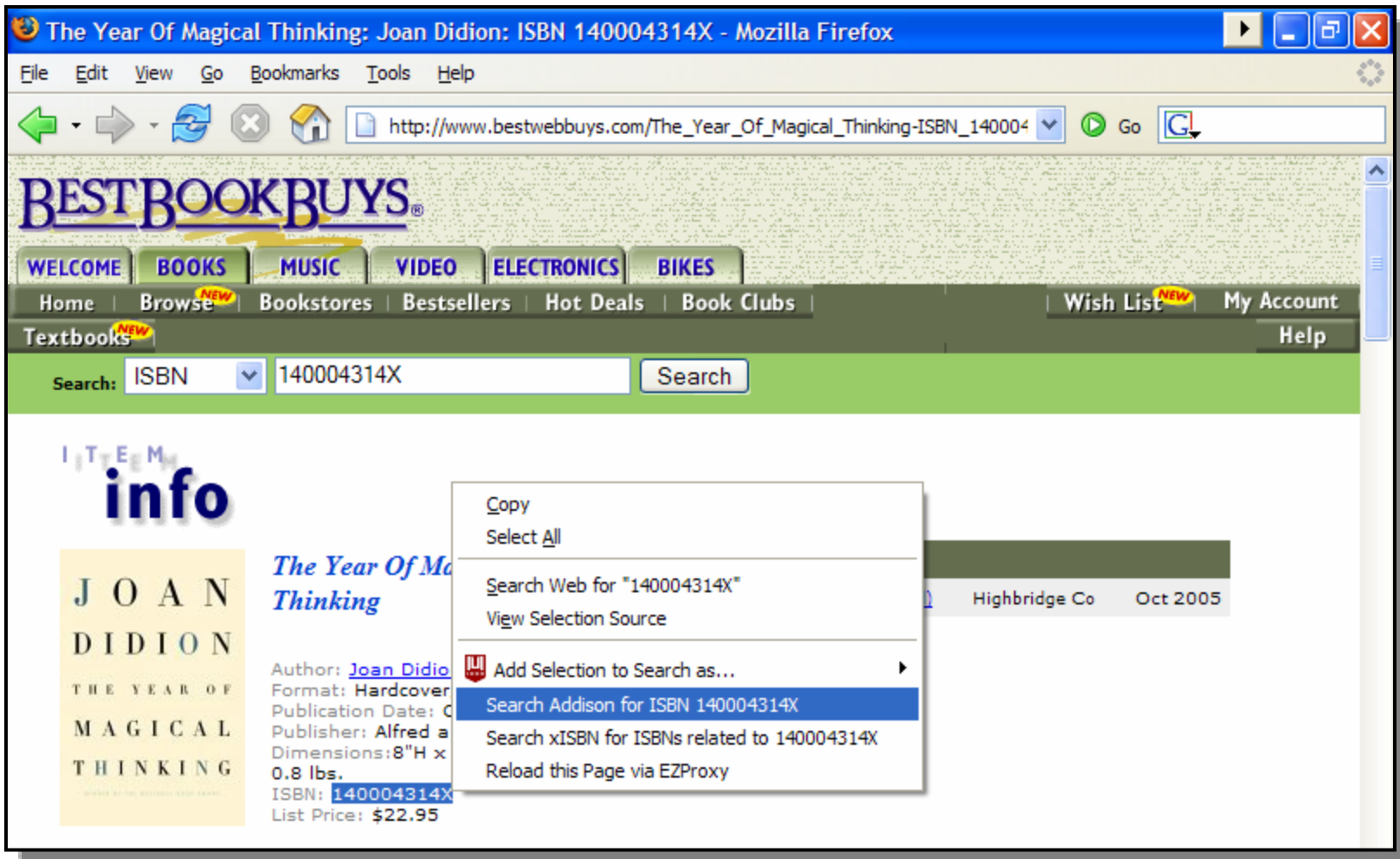
Result page: [Previous Page](#) [Next Page](#)

Done

Nested Context Menu



Adaptive Context Menu



Virginia Tech Libraries /All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/?searchtype=i&searcharg=140004314X&startl

Start Over Request Save Records MARC Display Another Search

(Search History)

ISBN/ISSN 140004314X All University Libraries System Sorted

Search

☐ Limit search to available items

Result page: Previous Page Next Page

Author [Didion, Joan.](#)

Title **The year of magical thinking / Joan Didion.**

Publication info. New York : Knopf, 2005.

Call no. PS3554.I33 Z63 2005

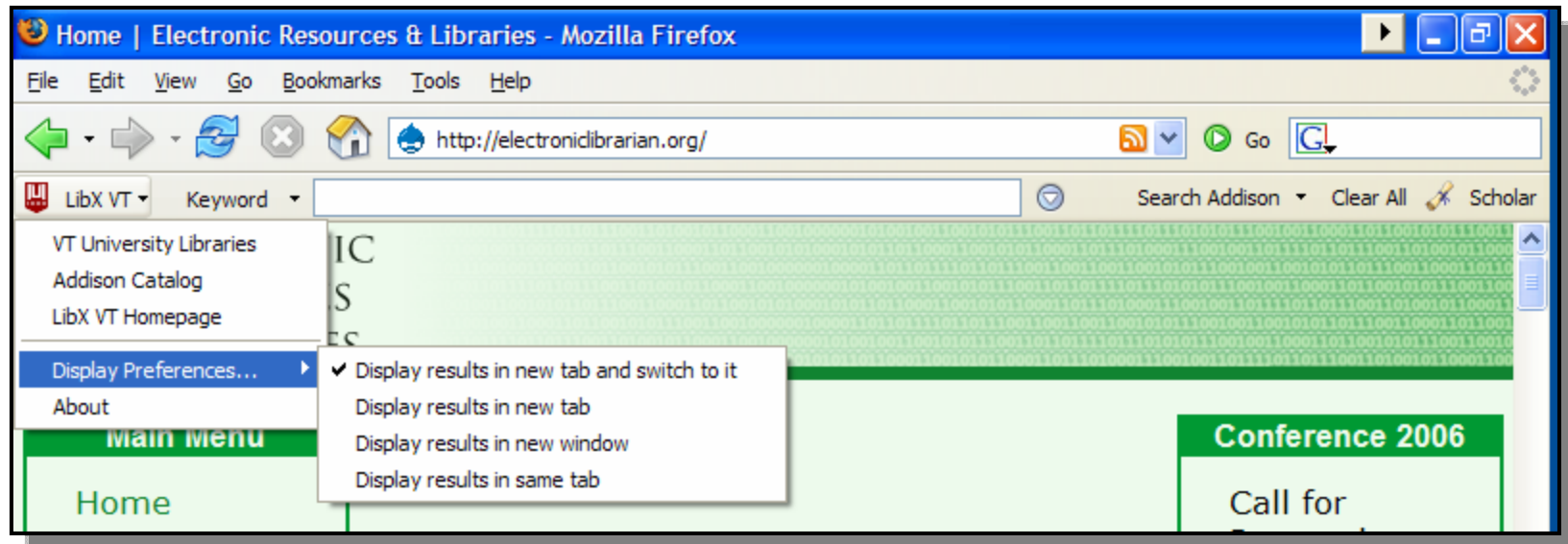
Location	Call No.	Status
Newman 3rd Floor	PS3554.I33 Z63 2005	DUE 05-17-06

Edition 1st ed.

Description 227 p. ; 21 cm.

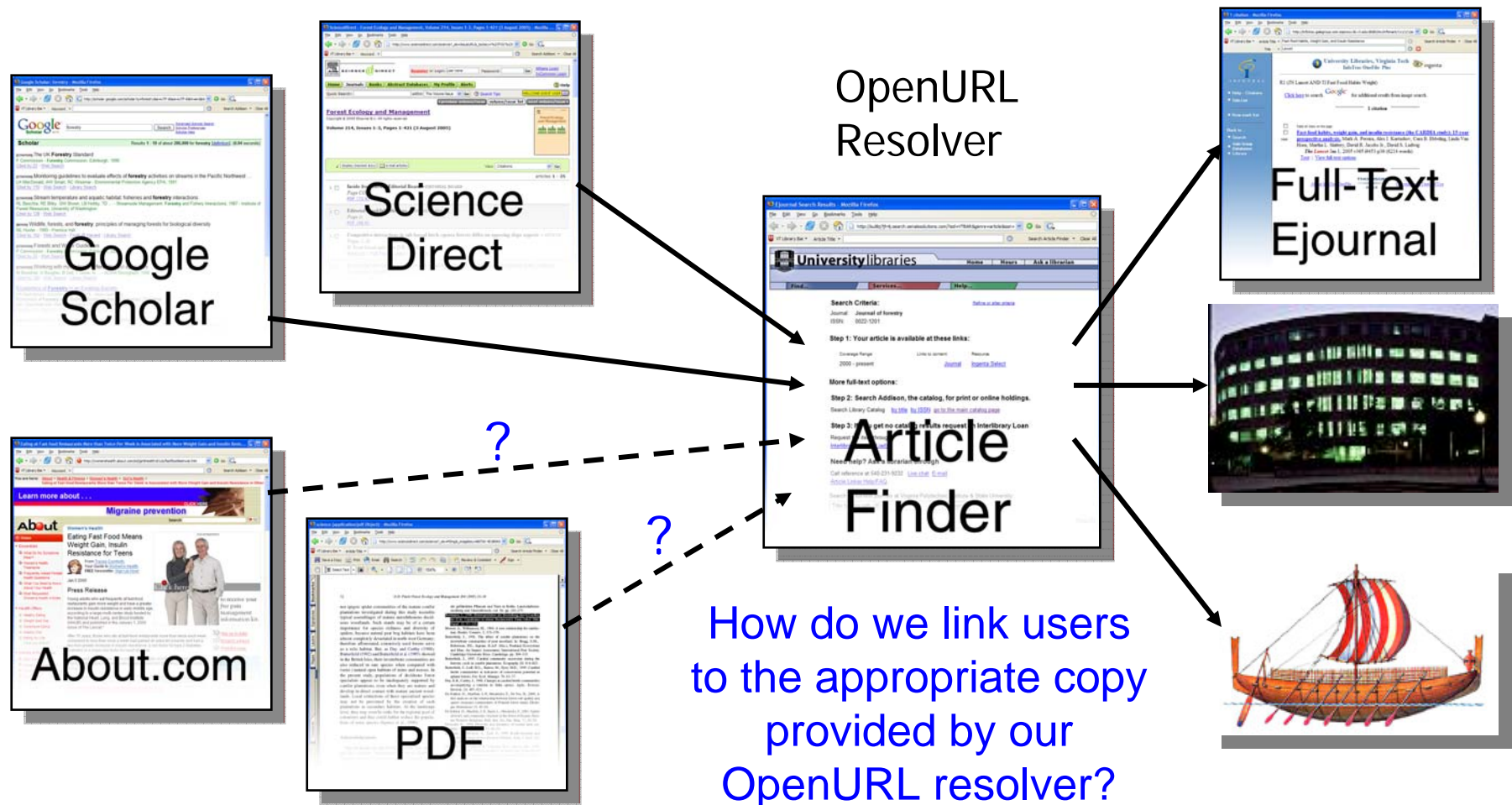
Done

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

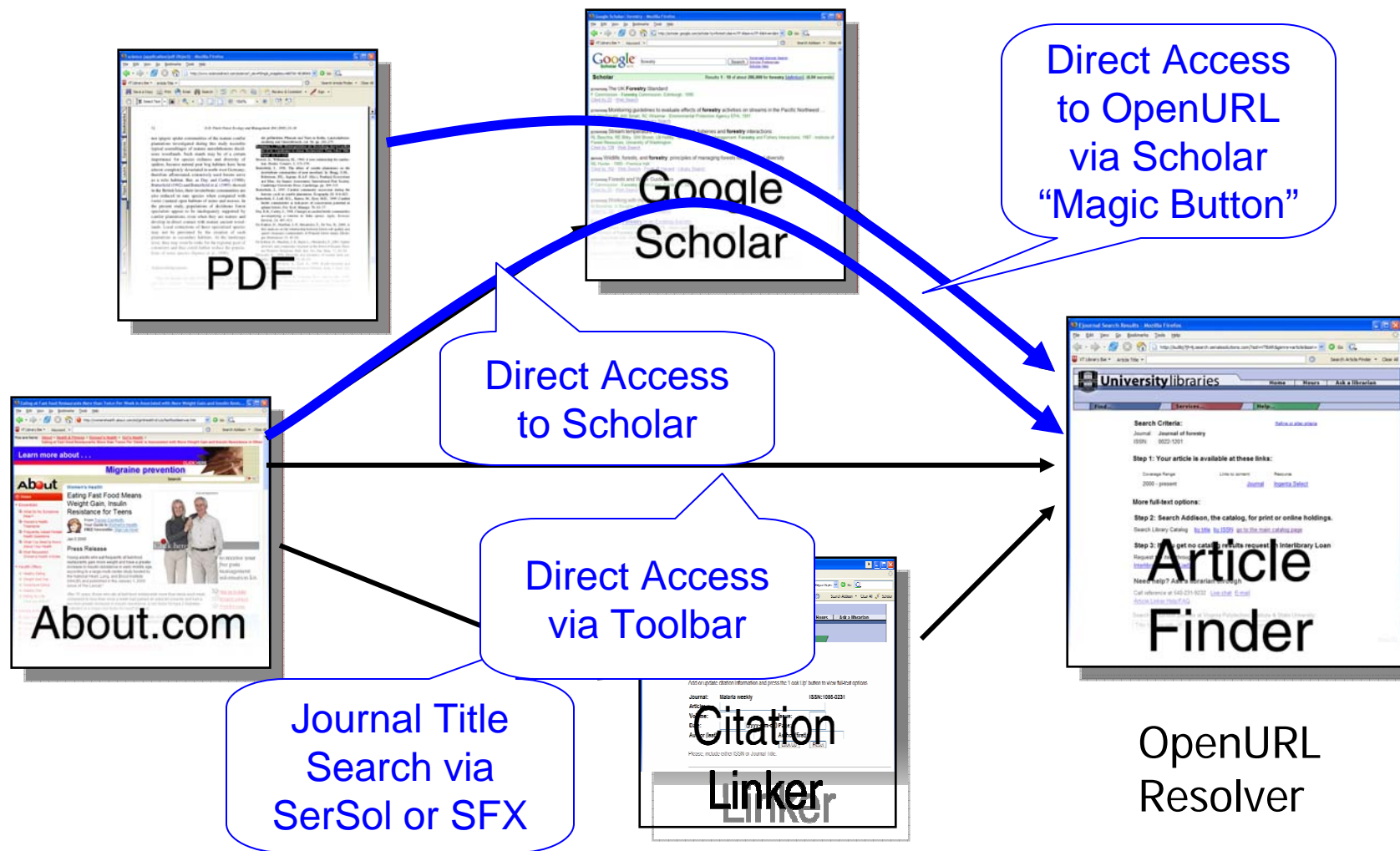


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22

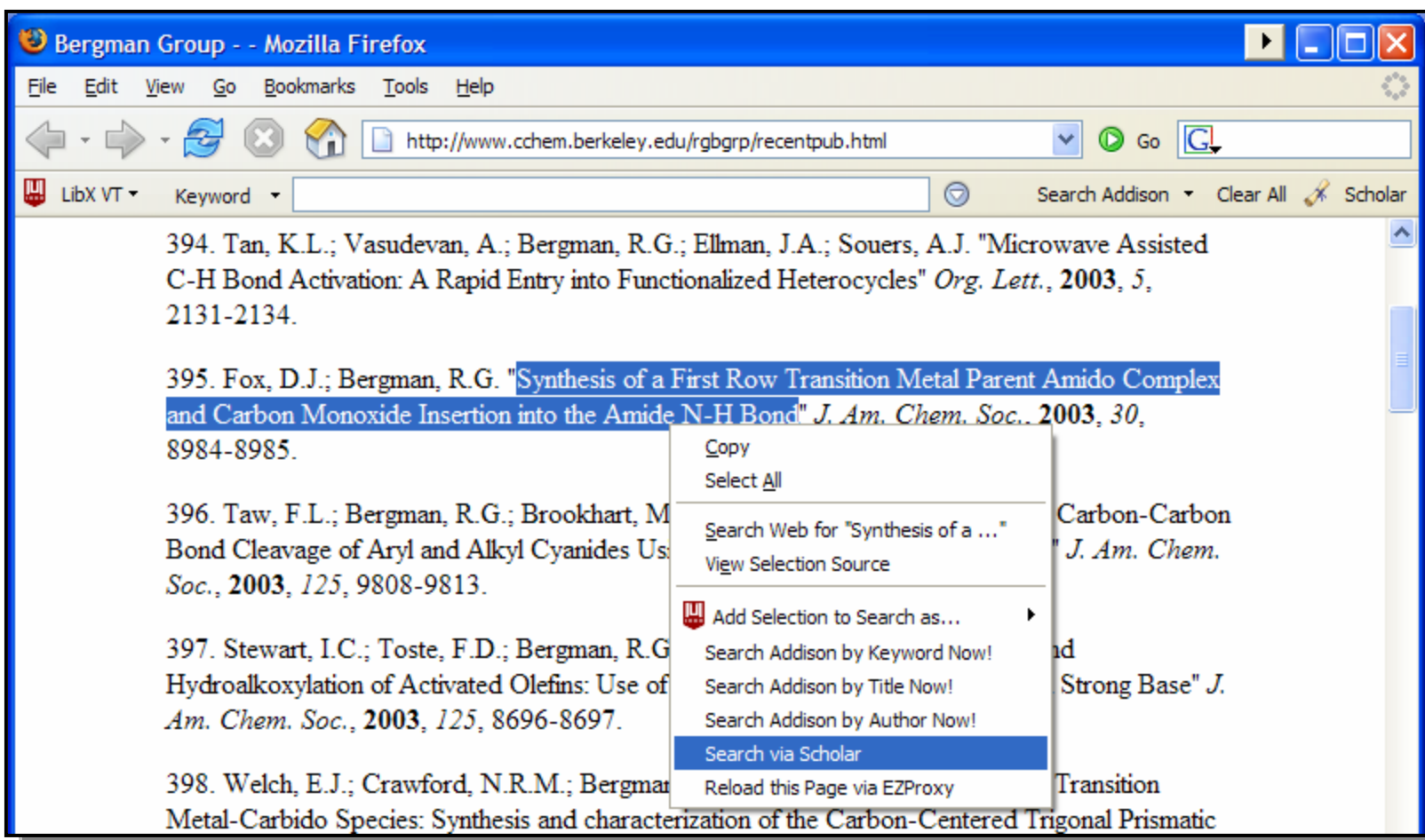
OpenURL Access Options in LibX



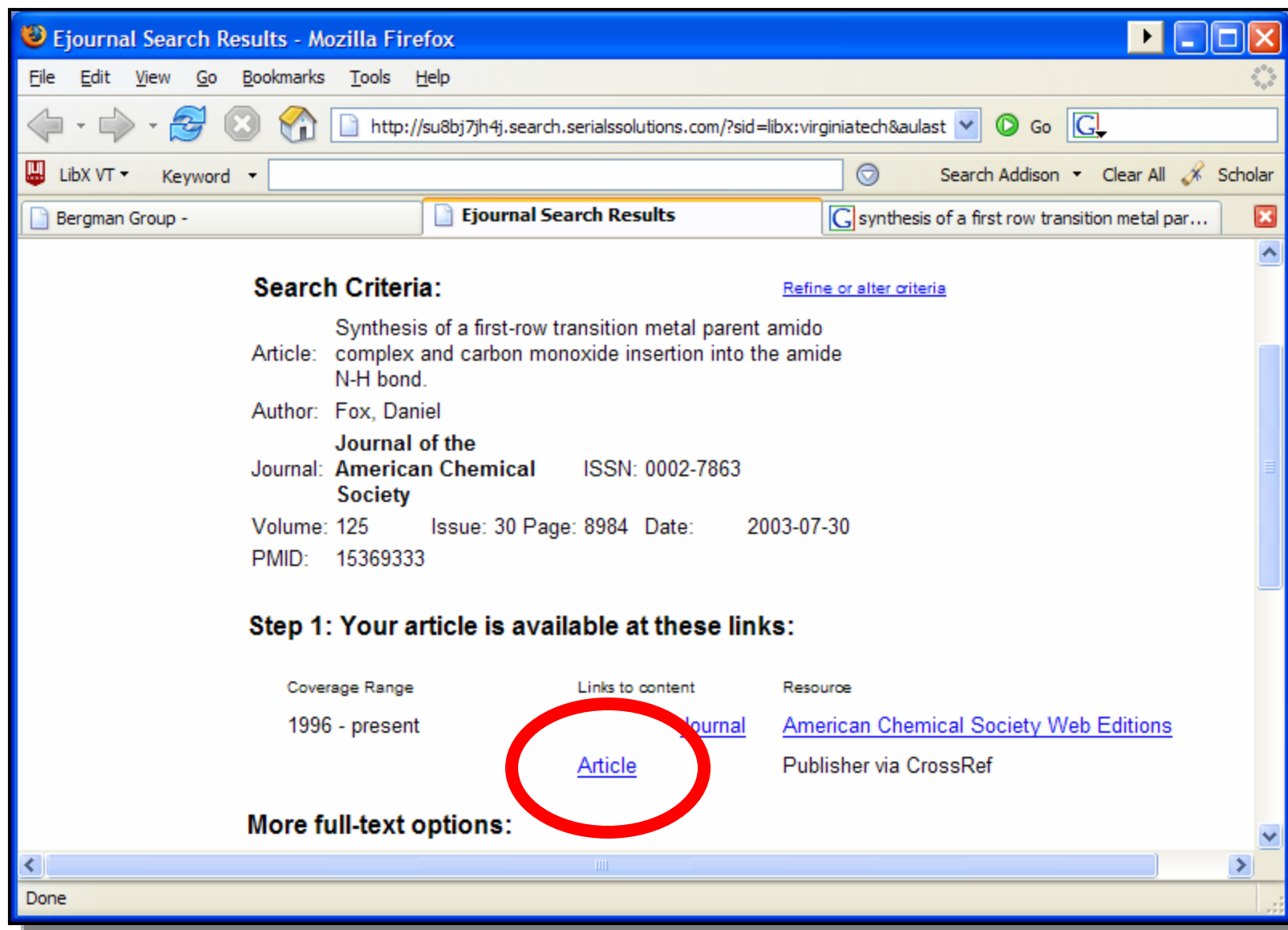
Demonstration 2

OpenURL Access &
The “Magic Button”

OpenURL Access via Scholar



Source: <http://www.cchem.berkeley.edu/rgbgrp/recentpub.html>



Article DOI Lookup - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

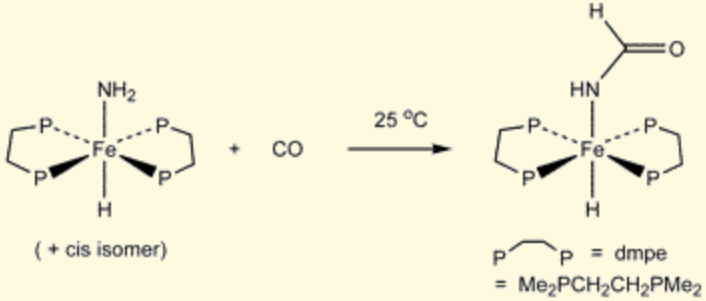
http://pubs3.acs.org/acs/journals/doilookup?in_doi=10.1021/ja035707a

LibX VT Keyword Search Addison Clear All Scholar

ACS PUBLICATIONS
HIGH QUALITY. HIGH IMPACT.

Feedback Purchase

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](https://doi.org/10.1021/ja035707a)



(+ cis isomer)

p - p = dmpe
= Me₂PCH₂CH₂PMe₂

Abstract Full: [HTML](#) / [PDF](#) (15K) [Supporting Info](#)

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.

Done

synthesis of a first row transition metal parent amido complex and carbon monoxide insertion into the amide

File Edit View Go Bookmarks Tools Help

http://scholar.google.com/scholar?hl=en&lr=&q=synthesis%20of%20a%20a%20complex%20and%20carbon%20monoxide%20insertion%20into%20the%20amide%20nh%20bond

LibX VT Keyword Search Addison Clear All Scholar

Bergman Group - Ejournal Search Results synthesis of a first row transition me...

Scholar Results 1 - 8 of 8 for synthesis of a first row transition metal parent amido complex and carbon monoxide insertion into the amide

FEEDBACK PURCHASE - - [group of 2 »](#)
WJ Evans, SA Kozimor, JW Ziller - J. Am. Chem. Soc, 2003 - [pubs3.acs.org](#)
... First Catalytic Reductive Coupling of 1,3 ... Type of Chiral Ligand for **Transition Metal**
Catalysts: Its ... **Synthesis** of (-)-Terpestacin via Catalytic, Stereoselective ...
Cited by 75 - [Cached](#) - [Web Search](#)

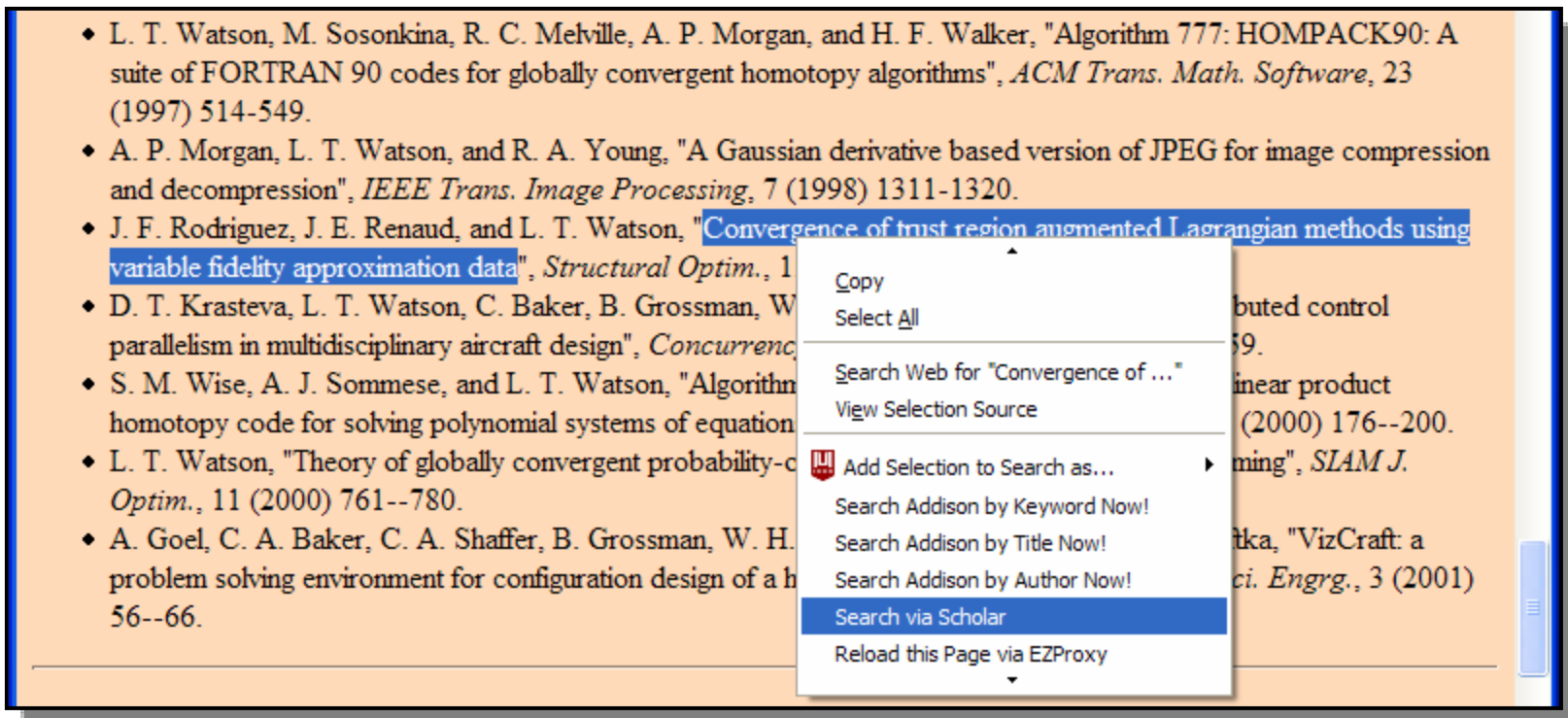
Monomeric metal hydroxides - - [group of 2 »](#)
HE Bryndza, W Tam - Chemical Reviews, 2003 - [pubs.acs.org](#)
... available to hydroxides, alkoxides ...
as 1969 Ugo and co-workers reported ...
Cited by 48 - [Web Search](#)

... First-Row Transition Metal Parent Amido Complex and Carbon Monoxide Insertion into the Amide NH Bond - - [group of 2 »](#)
DJ Fox, RG Bergman - JOURNAL-AMERICAN CHEMICAL SOCIETY, 2003 - [pubs.acs.org](#)
... **Synthesis** of a First-Row Transition Metal Parent Amido Complex and Carbon Monoxide
Insertion into the Amide NH Bond. Daniel J. Fox and Robert G. Bergman*. ...
[Web Search](#) - [BL Direct](#)

Done

OpenURL Access via Scholar (2)

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



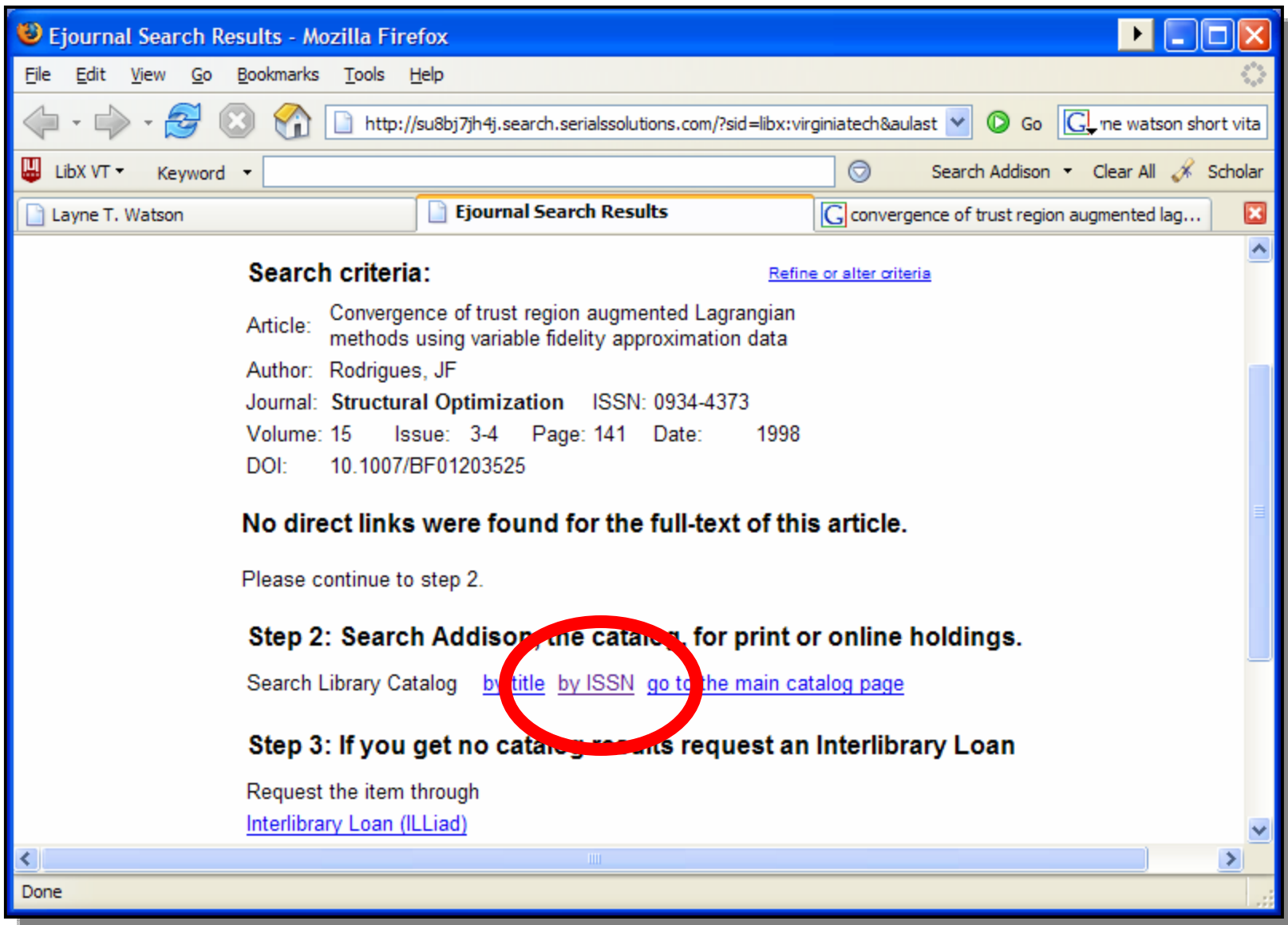
The screenshot shows a web page with a list of references. A context menu is open over the third reference, which is highlighted in blue. The menu options are:

- Copy
- Select All
- Search Web for "Convergence of ..."
- View Selection Source
- Add Selection to Search as...
- Search Addison by Keyword Now!
- Search Addison by Title Now!
- Search Addison by Author Now!
- Search via Scholar
- Reload this Page via EZProxy

The references listed on the page are:

- ♦ L. T. Watson, M. Sosonkina, R. C. Melville, A. P. Morgan, and H. F. Walker, "Algorithm 777: HOMPAC90: A suite of FORTRAN 90 codes for globally convergent homotopy algorithms", *ACM Trans. Math. Software*, 23 (1997) 514-549.
- ♦ A. P. Morgan, L. T. Watson, and R. A. Young, "A Gaussian derivative based version of JPEG for image compression and decompression", *IEEE Trans. Image Processing*, 7 (1998) 1311-1320.
- ♦ J. F. Rodriguez, J. E. Renaud, and L. T. Watson, "Convergence of trust region augmented Lagrangian methods using variable fidelity approximation data", *Structural Optim.*, 1
- ♦ D. T. Krasteva, L. T. Watson, C. Baker, B. Grossman, W. H. Shaffer, "Parallelism in multidisciplinary aircraft design", *Concurrent Engineering*, 10 (2000) 176--200.
- ♦ S. M. Wise, A. J. Sommese, and L. T. Watson, "Algorithm 777: HOMPAC90: A suite of FORTRAN 90 codes for globally convergent homotopy algorithms", *ACM Trans. Math. Software*, 23 (1997) 514-549.
- ♦ L. T. Watson, "Theory of globally convergent probability-constrained optimization", *Optim.*, 11 (2000) 761--780.
- ♦ A. Goel, C. A. Baker, C. A. Shaffer, B. Grossman, W. H. Shaffer, "A problem solving environment for configuration design of a vehicle", *AI Mag.*, 22 (2001) 56--66.

Source: <http://people.cs.vt.edu/~ltw/shortvita.html>



Virginia Tech Libraries /All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/i?SEARCH=0934-4373

LibX VT Keyword Search Addison Clear All Scholar

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

Location	Call No.	Status
Newman 5th Floor	TA658 .S65 V. 17	AVAILABLE
Newman 5th Floor	TA658 .S65 V. 18	AVAILABLE

Description 18 v. : ill. ; 28 cm.

Frequency Quarterly


Publication date Vol. 1, no. 1-
Ceased with issue for Vol. 18, no. 4, in Dec. 1999.

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-

Done

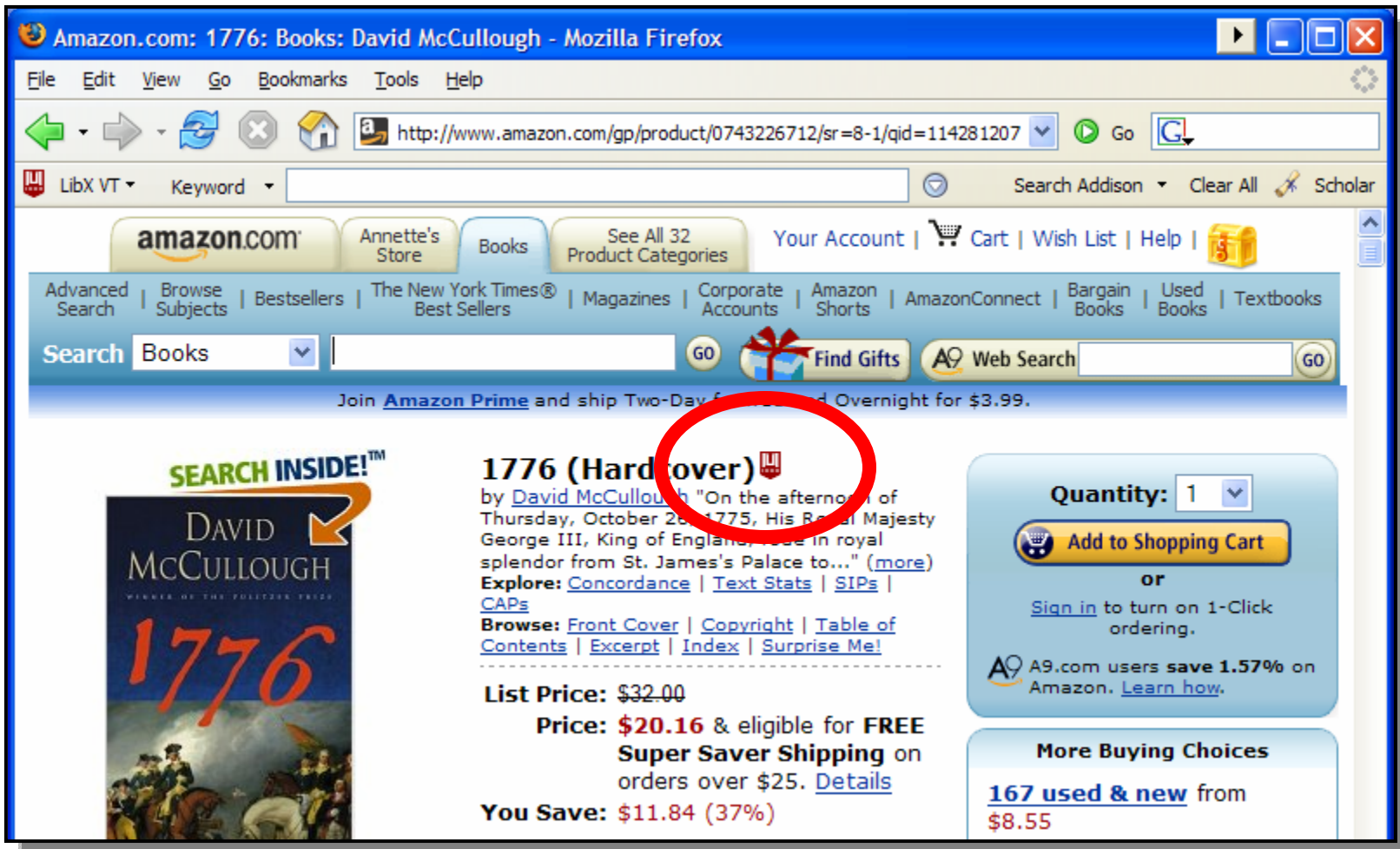
Localization via LibX

- 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 (ocoin.info)

Demonstration 3

Localization using Cues

Cues on Amazon



Virginia Tech Libraries / All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/?searchtype=i&searcharg=0743226712&sta

LibX VT Keyword Search Addison Clear All Scholar

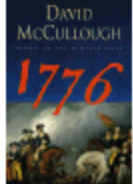
ISBN/ISSN 0743226712 All University Libraries System Sorted

Search

☐ Limit search to available items

Result page: Previous Page Next Page

Author	McCullough, David G.
Title	1776 / David McCullough.
Publication info.	New York : Simon & Schuster, c2005.
Call no.	E208 .M396 2005



Location	Call No.	Status
Newman 2nd Floor	E208 .M396 2005	DUE 10-19-05BILLED
Newman Popular Reading	Browse E524	DUE 04-05-06 +1 HOLD
Newman 2nd Floor	E208 .M396 2005 c.2	DUE 04-14-06

Done

New York Times Book Review



Virginia Tech Libraries / All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/?searchtype=t&searcharg=New%20York%20Night%20The%20Mystique%20and%20its%20history%20Mark%20Caldwell

LibX VT Keyword Search Addison Clear All Scholar

TITLE New York Night: The Mystique and its history / Mark Caldwell All University Libraries System Sorted

Search

☐ Limit search to available items


Result page: Previous Page Next Page

Author [Caldwell, Mark.](#)

Title **New York night : the mystique and its history / Mark Caldwell.**

Publication info. New York : Scribner, c2005.

Call no. F128.3 .C35 2005



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

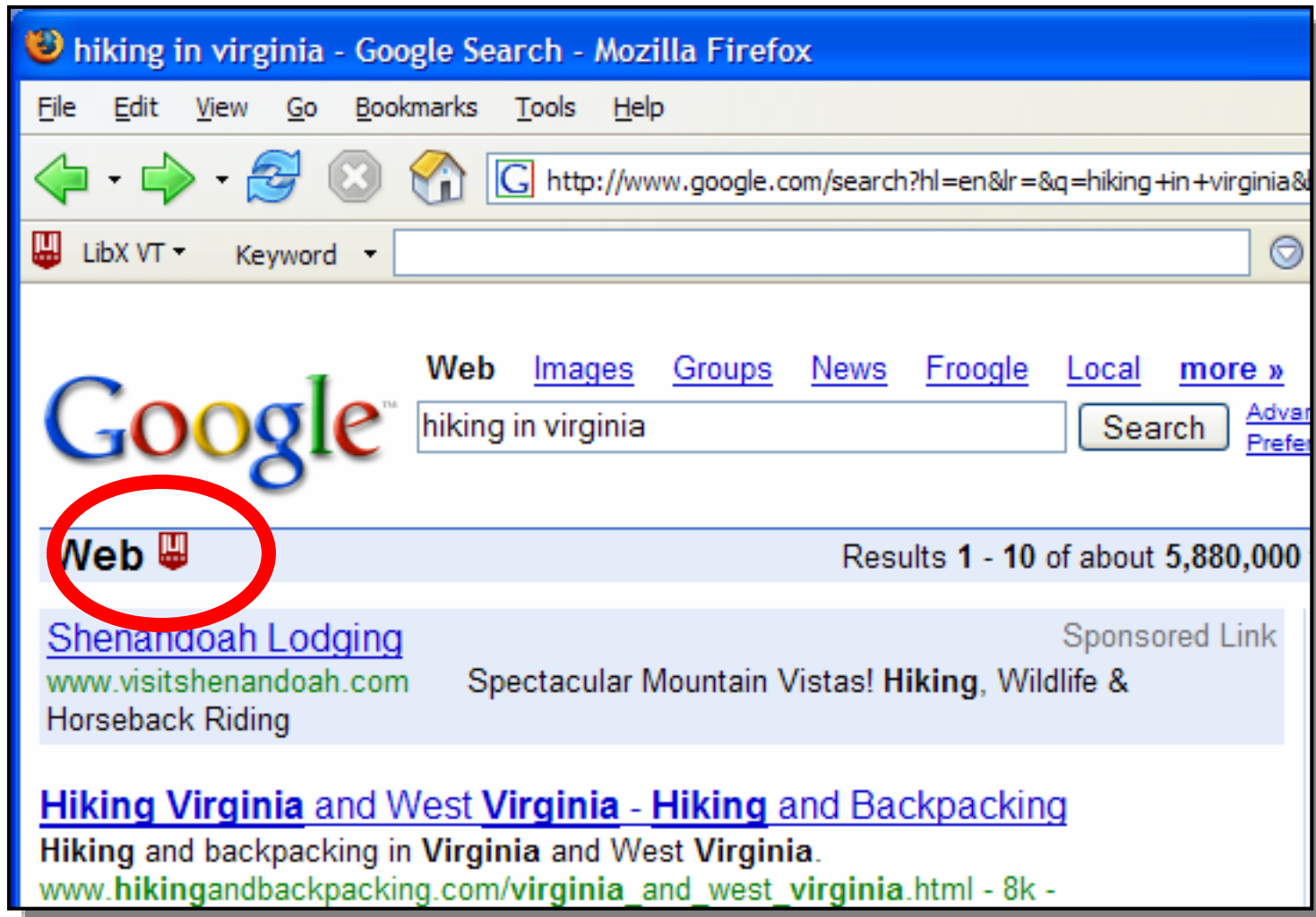
Description viii, 404 p. ; 24 cm.

Bibliography Includes bibliographical references (p. 378-390).

Contents New Amsterdam noir : the dark nights of Dutch Manhattan --
 Battle-watch nights : city streets after sunset, from Peter

Done

Google



Virginia Tech Libraries /All Locations - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://addison.vt.edu/search/Y?SEARCH=hiking%20in%20virginia&startLir Go

LibX VT Keyword Search Addison Clear All Scholar

KEYWORD hiking in virginia All University Libraries Search


☐ Limit search to available items

Tried: (hiking and in and virginia)
15 results found. Sorted by Relevance


Result Page 1 2 Next

Save Marked Records Save All On Page

KEYWORDS (1-12 of 15)

1 ☐ Save  **A cross-scalar validation study of the motivations of backcountry hikers in Shenandoah National Park** 1980

Call number	Status	Format
LD5655.V855 1980.D398	Check Availability	BOOK

2 ☐ Save  **The trails of Virginia : hiking the Old Dominion / Allen de Hart.** 2003

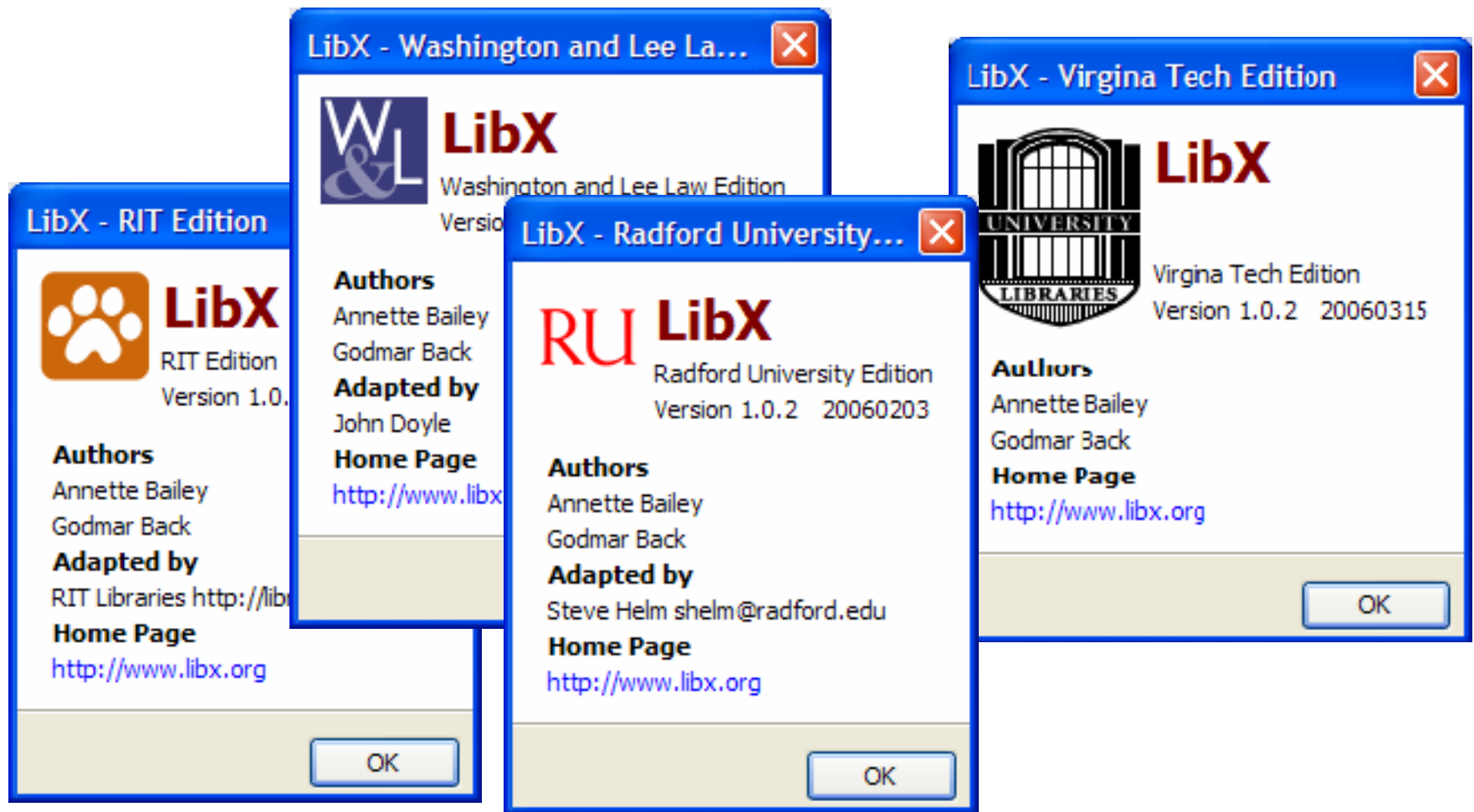
Call number	Status	Format
GV199.42.V8 D4 2003	Check Availability	BOOK

Done

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