One Search Box to Rule Them All?
An Introduction to Web Scale Discovery

Leighton Christiansen

March 14, 2013, Iowa Department of Transportation Library

for Transportation Librarians Roundtable

Current Discovery Challenges

- Collection Size
- Format Variety
- Electronic Access
- Remotely Hosted Content
- Interface Diversity
- User search preferences
- Full Text Delivery

If something is not discovered, it cannot be used

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Possible Solution

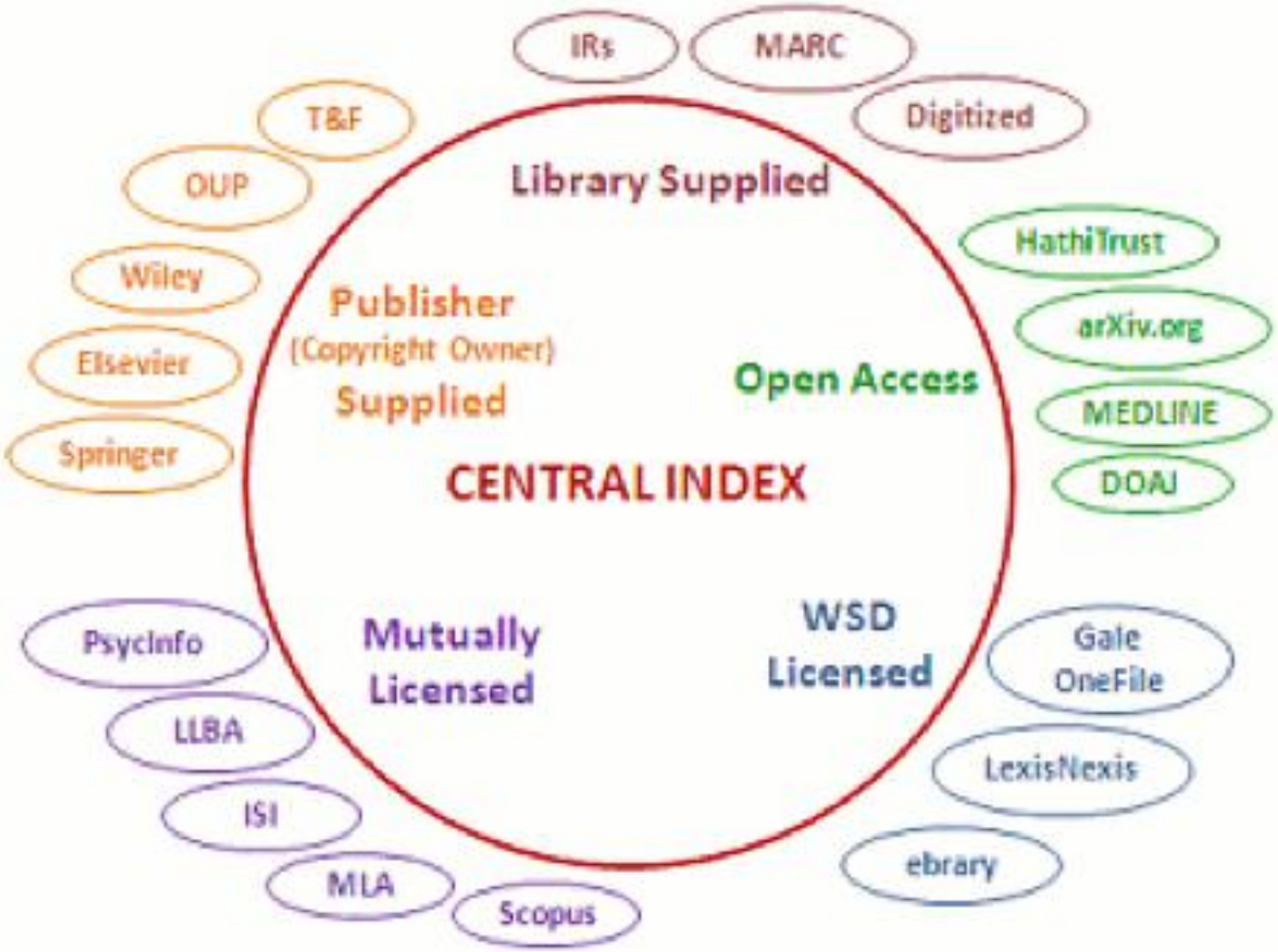
Web-Scale Discovery:

A preharvested central index coupled with a richly featured discovery layer that provides a single search across a library's local, open access, and subscription collections.

-Athena Hoeppner

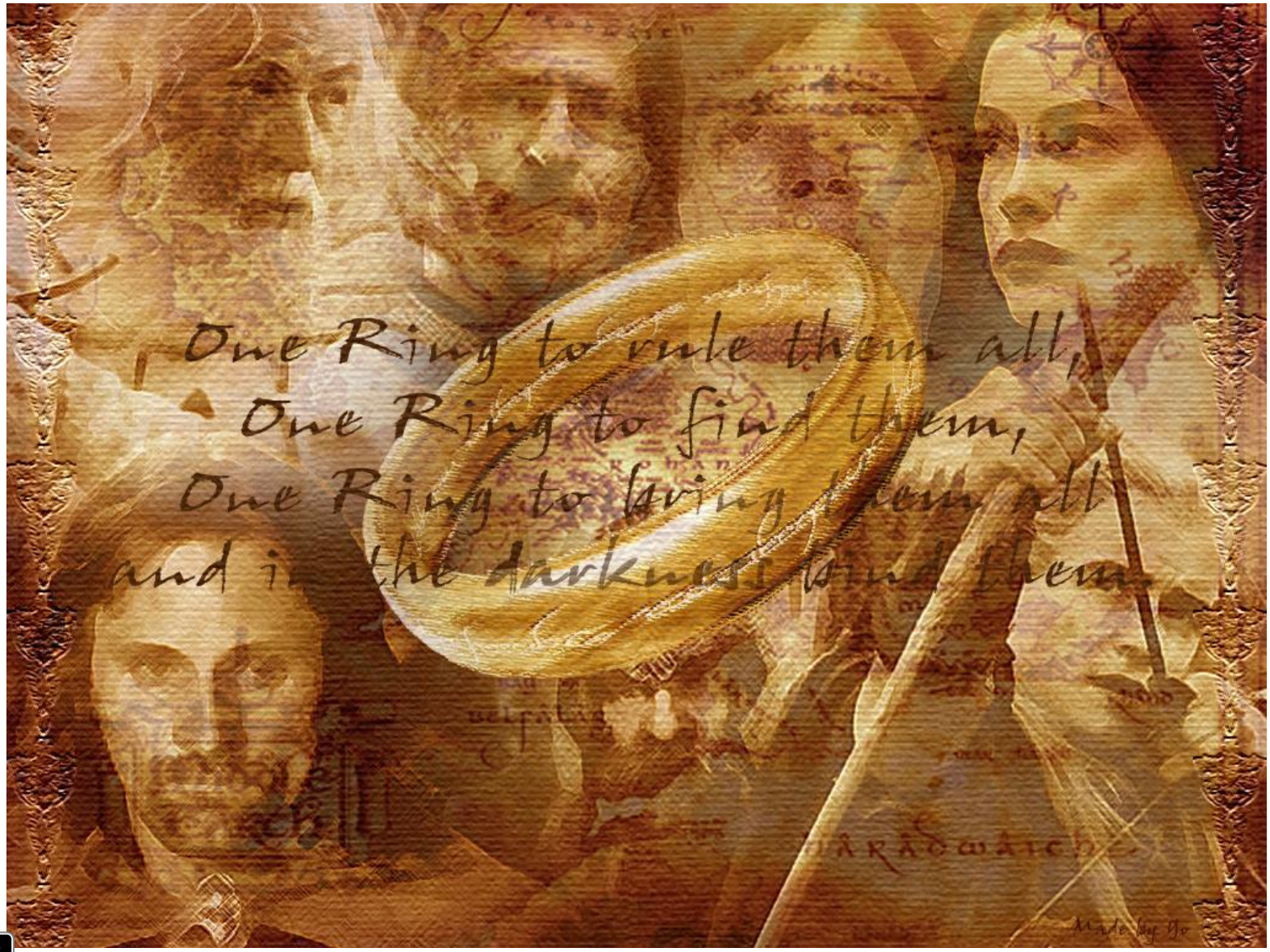
The Ins and Outs of Evaluating Web-Scale Discovery Services, 2012

Central Index: Hoeppner



http://www.infotoday.com/cilmag/apr12/Hoeppner-Web-Scale-Discovery-Services.shtml

Central Index: Tolkien



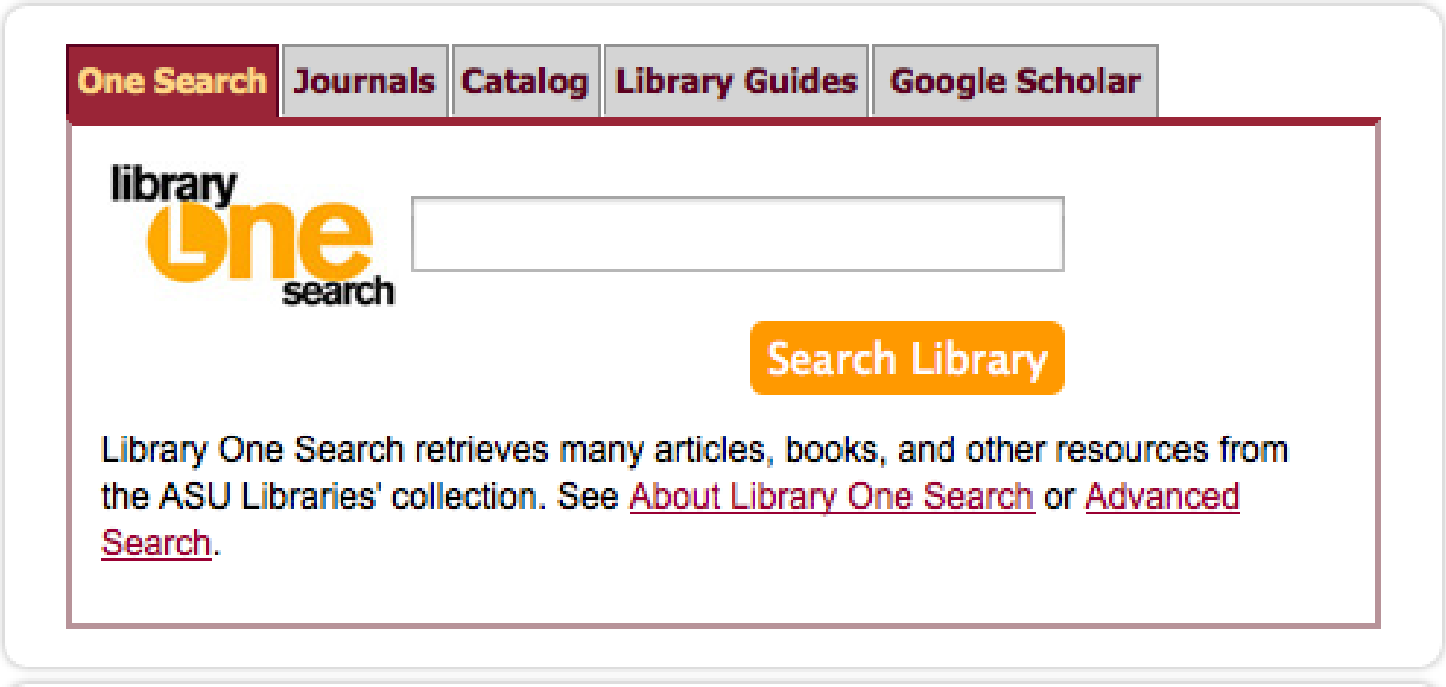
http://www.picgifs.com/wallpapers/movie-and-tv-shows/lord-of-the-rings/animaatjes-lord-of-the-rings-62220.jpg

Iowa DOT Library

Central Index: Arizona State

http://connect.ala.org/files/90278/library_one_search_lita2010_pdf_12610.pdf

Central Index: Arizona State



http://connect.ala.org/files/90278/library_one_search_lita2010_pdf_12610.pdf

Carrying a metaphor too far

Web Scale Discovery: deep discovery within a vast ocean of content.

-Jason Vaughan, *Web Scale Discovery Services*, 2011

Giving credit where it is due: the previous slide

Fangtooth fish

http://ocean.nationalgeographic.com/ocean/photos/deep-sea-creatures/#/deep-sea04-fangtooth_18164_600x450.jpg

Giant Squid

http://images.nationalgeographic.com/wpf/media-live/photos/000/005/cache/giant-squid_544_600x450.jpg

Frill Shark

http://images.nationalgeographic.com/wpf/media-live/photos/000/181/cache/deep-sea01-frill-shark_18161_600x450.jpg

Moby-Dick illustration

http://collider.com/wp-content/uploads/moby-dick.jpg

Web Scale Discovery Systems

Serials Solutions Summon

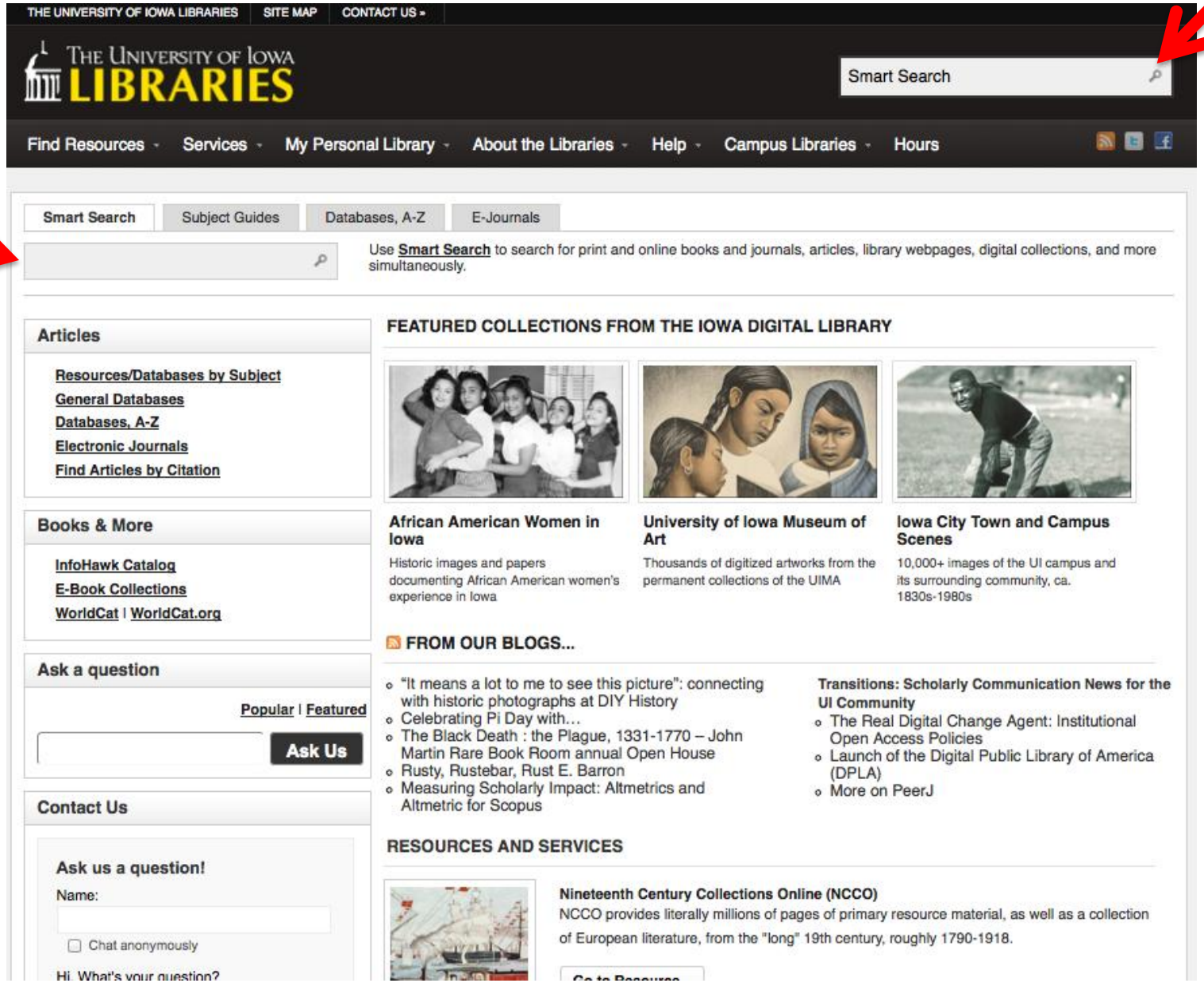
OCLC WorldCat Local

EBSCO Discovery Services

Ex Libris Primo Central

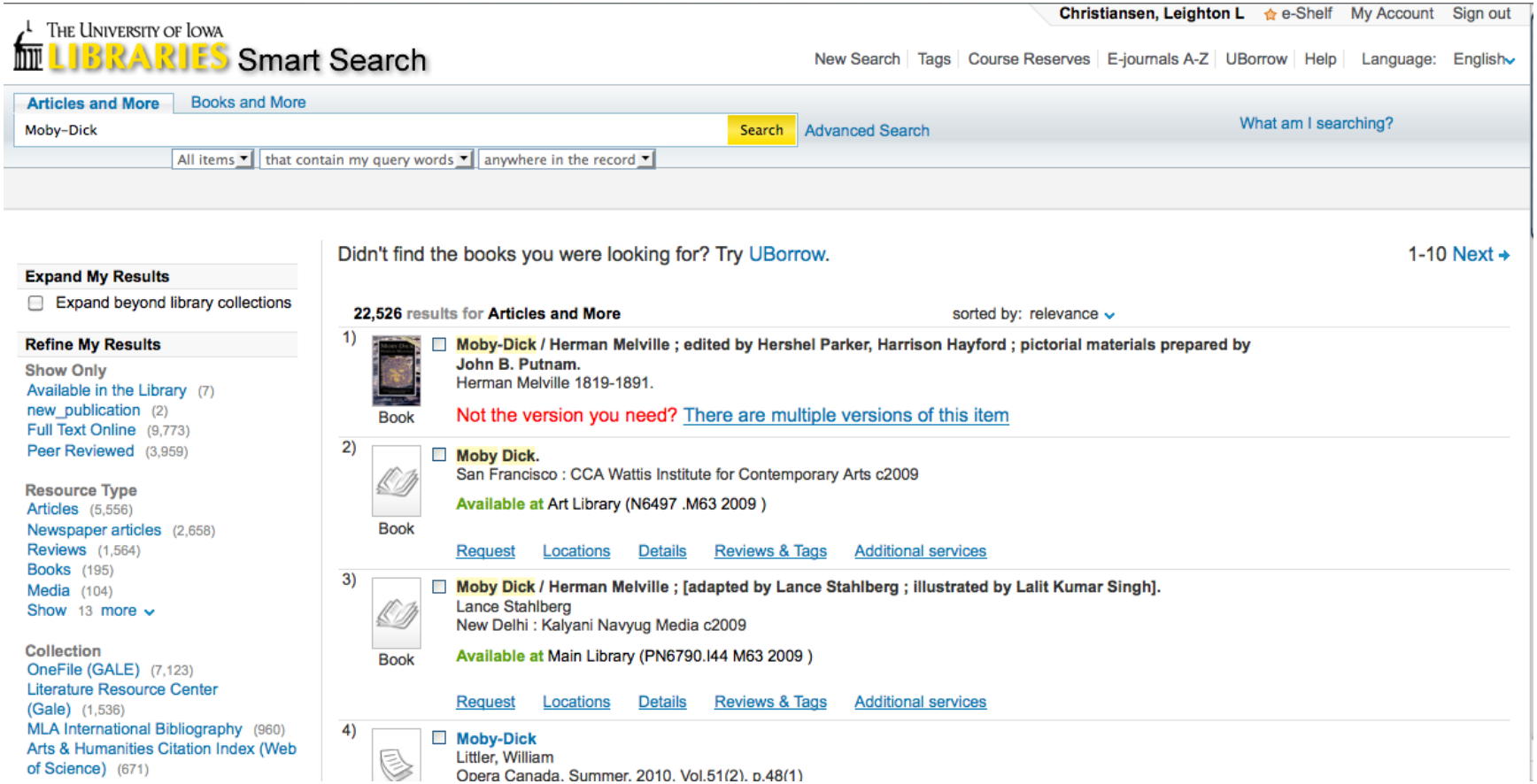
& Others in development or to come

Web Scale Discovery



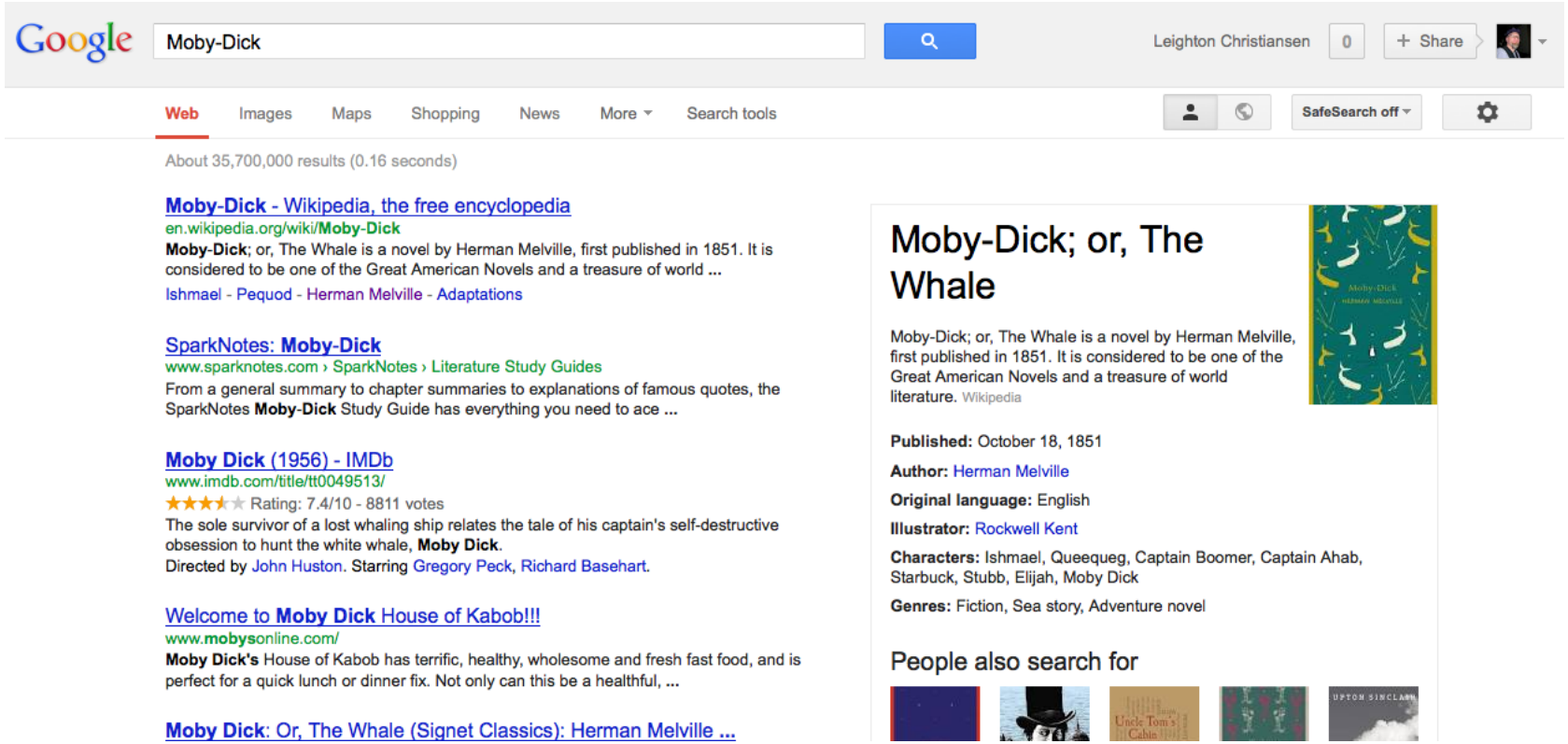
http://www.lib.uiowa.edu/

Web Scale Discovery: Primo



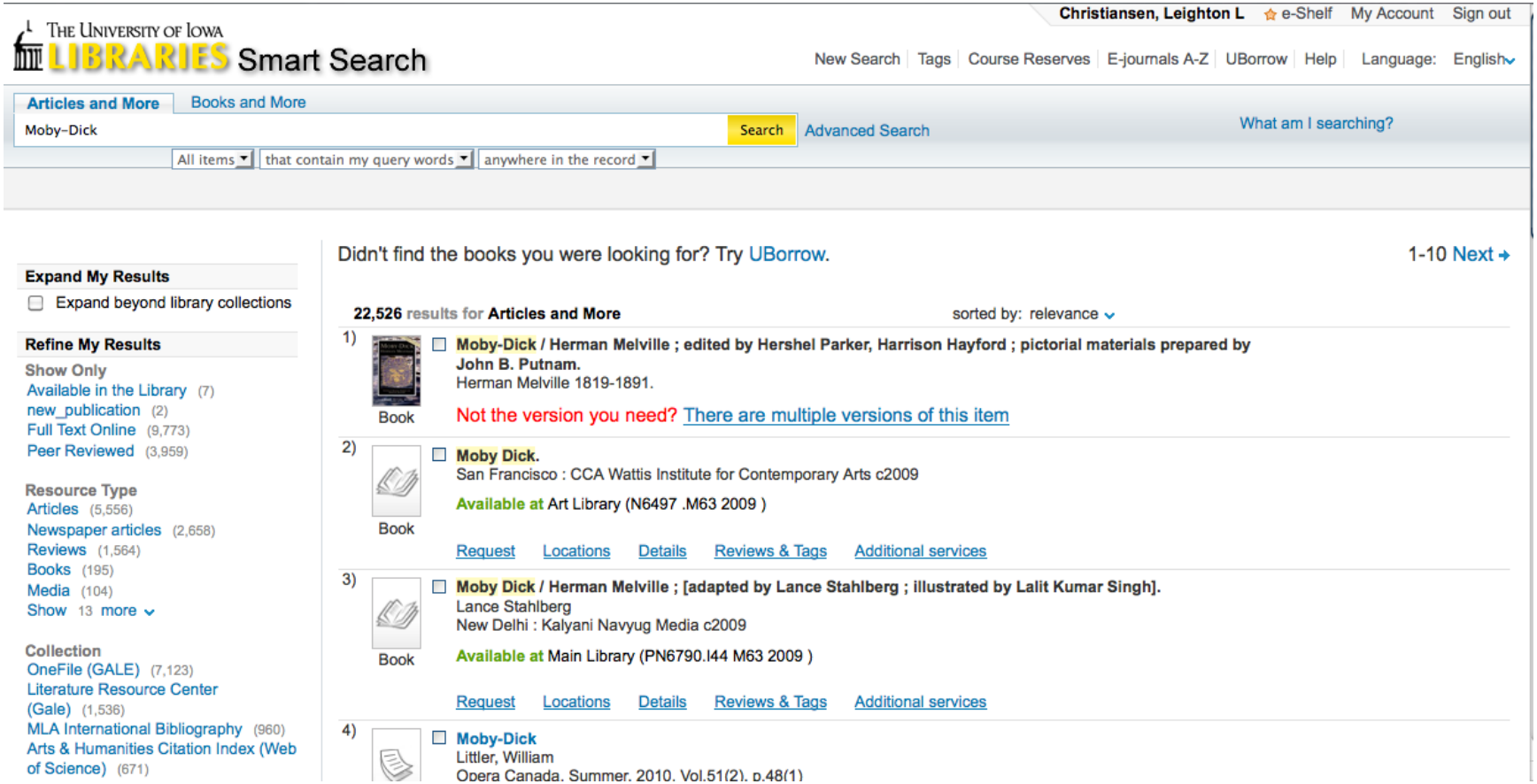
http://www.lib.uiowa.edu/

Web Scale Discovery?: Google



http://www.google.com/

Web Scale Discovery



http://www.lib.uiowa.edu/

Facets

Resource Type

- Articles (5,556)
- Newspaper articles (2,658)
- Reviews (1,564)
- Books (195)
- Media (104)
- Text Resources (74)
- Reference entrys (19)
- E-Books (15)
- Microform (11)
- websites (11)
- Dissertations (8)
- Scores (5)
- Conference Proceedings (3)
- DVD (3)
- Audio (2)
- VHS (1)
- Other (1)
- Video (1)
- Hide last 13 ^

Topic

- American Literature (844)
- Book Reviews (540)
- 1800-1899 (536)
- Melville, Herman(1819-1891) (484)
- Novel (475)
- Moby-dick(1851) (350)
- Writers (193)
- books (138)
- Melville, Herman (77)
- Melville, Herman, 1819-1891.
- Moby-Dick (77)
- Television Programs (38)
- Melville, Herman, 1819-1891 (30)
- Sea stories, American (17)
- Whaling in literature (15)
- Book Lists (13)
- Celebrities (13)
- American fiction (12)
- Whales in literature (12)
- Peck, Gregory (11)
- Characters (9)
- Textual Editing (9)
- Secondary Education (6)
- English literature (6)
- Audiovisual Materials (6)
- English Instruction (5)
- Thomas, Henry (5)
- Whaling (5)
- United States (5)
- Novels (4)
- Melville, Herman, 1819-1891 Moby Dick (4)
- Operas (3)
- Whales (3)
- Politics and literature (3)
- Music (3)
- Stewart, Patrick (3)
- Orchestral music (3)
- Roddam, Franc (2)
- Nissan Motor Company Ltd. (2)
- Hide last 33 ^

Creator

- Melville, H (23)
- Bryant, John (19)
- ebrary, Inc (10)
- Seaman, Donna (6)
- Umstead, R. Thomas (6)
- Rogers, M (5)
- Melville, Herman, 1819-1891 (5)
- Parker, H (5)
- Tanselle, G (4)
- Mennin, P (4)
- Hayford, H (4)
- Naxos Digital Services (3)
- Chipman, Ian (3)
- Slochower, Harry (3)
- Arnold, Neala (3)
- Albany Symphony Orchestra (2)
- Edinger, E (2)
- Christensen, Bryce (2)
- Wooden, R (2)
- Melville Society (2)
- Glasser, William (2)
- Miller, D (2)
- Sachs, V (2)
- Welles, O (2)
- Takemitsu, T (2)
- Shoichet, Catherine E. (1)
- Nechas, J (1)
- Rodríguez , Héctor (1)
- Kelley, W (1)
- Martinez , Eddy (1)
- Spiegelman, W (1)
- Hernández , Braulio (1)
- Vonancken, Eva Elisabeth (1)
- Craig, L (1)
- Littler, William (1)
- Urrutia , Osvaldo (1)
- Wasley, Paula (1)
- Gray, V (1)
- Hovhaness, A (1)
- Jones, Chris (1)
- Hide last 35 ^

Genre

- Electronic books (11)
- Drama (4)
- Fiction (2)
- Comic books, strips, etc (2)
- Exhibitions (2)
- Vocal scores with piano (1)
- Exhibition catalogues (1)
- Psychological fiction (1)
- Pictorial works (1)
- Congresses (1)
- Sea stories (1)
- Catalogs (1)
- Bibliography Exhibitions (1)
- Early works to 1800 (1)
- Bibliography (1)
- Adventure stories (1)
- Translations into French (1)
- Influence (1)
- Scores (1)
- Graphic novels (1)
- Hide last 15 ^

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Surfacing Collections & Journals

Journal Title

- Back Stage East (12)
- Booklist (54)
- Entertainment Weekly (60)
- Library Journal (94)
- New Scientist (12)
- New Statesman (1996) (37)
- New York (26)
- New York Times (37)
- Newsweek (46)
- PMLA: Publications of the Modern Language Association of America (9)
- Russia & CIS Business and Financial Newswire (4)
- School Library Journal (49)
- Science (8)
- Sewanee Review (18)
- The Chronicle of Higher Education (38)
- The Financial Times (78)
- The New York Times (645)
- Time (52)
- Variety (47)
- 科技信息 (2)
- Hide last 15

Collection

- OneFile (GALE) (7,123)
- Literature Resource Center (Gale) (1,536)
- MLA International Bibliography (960)
- Arts & Humanities Citation Index (Web of Science) (671)
- Arts & Sciences (JSTOR) (502)
- Health Reference Center Academic (Gale) (238)
- SciVerse ScienceDirect (Elsevier) (209)
- Social Sciences Citation Index (Web of Science) (193)
- Science Citation Index Expanded (Web of Science) (129)
- Main (109)
- 维普资讯 (Chongqing VIP Information Co.) (60)
- MEDLINE (NLM) (55)
- Project Gutenberg (25)
- HathiTrust Digital Library (24)
- Libraries Annex (23)
- Electronic (22)
- Special Collections (13)
- Main Media Collection (7)
- Rita Benton Music (7)
- Life Sciences (JSTOR) (7)
- Health & General Sciences (JSTOR) (7)
- Art (5)
- Main Storage (3)
- Jazz Music Library (Alexander Street Press) (3)
- Main Reference (1)
- Engineering (1)
- Hide last 21

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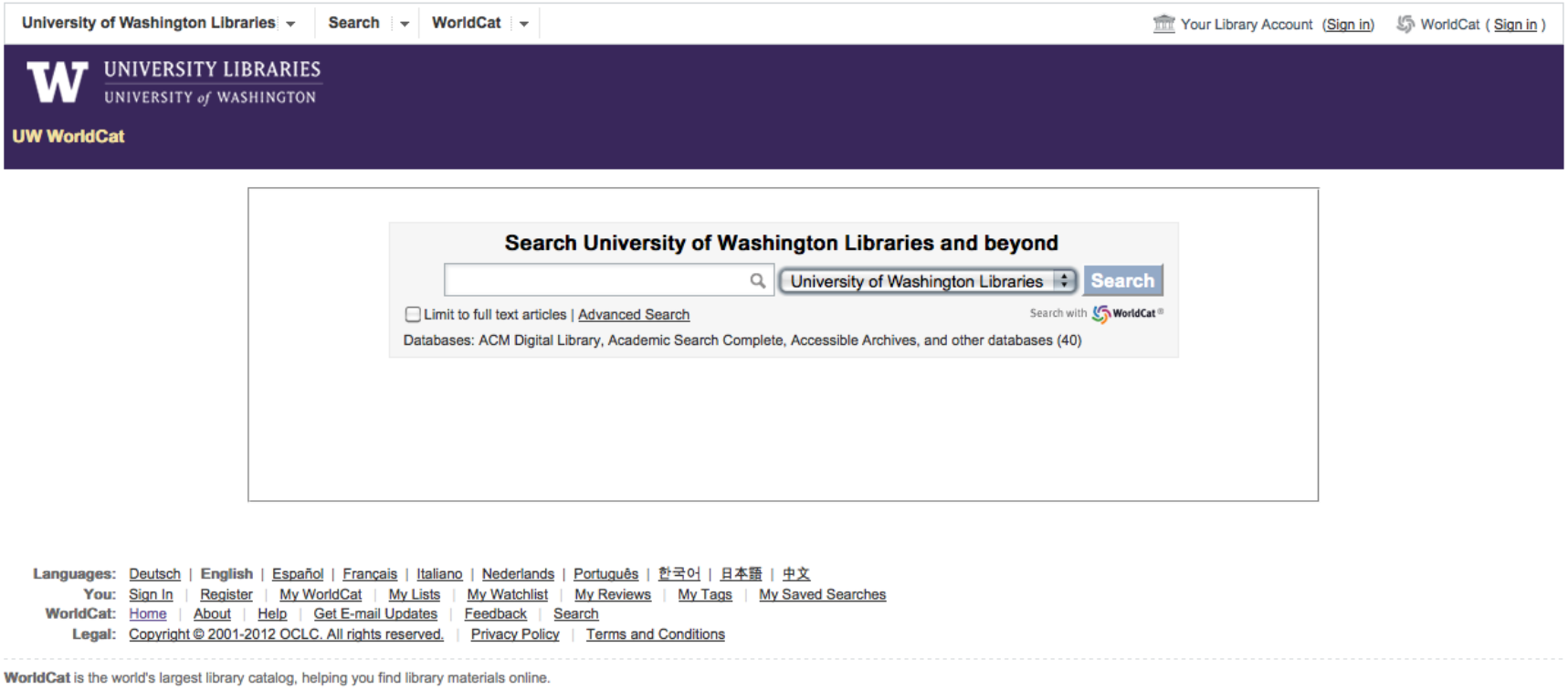
Search Help

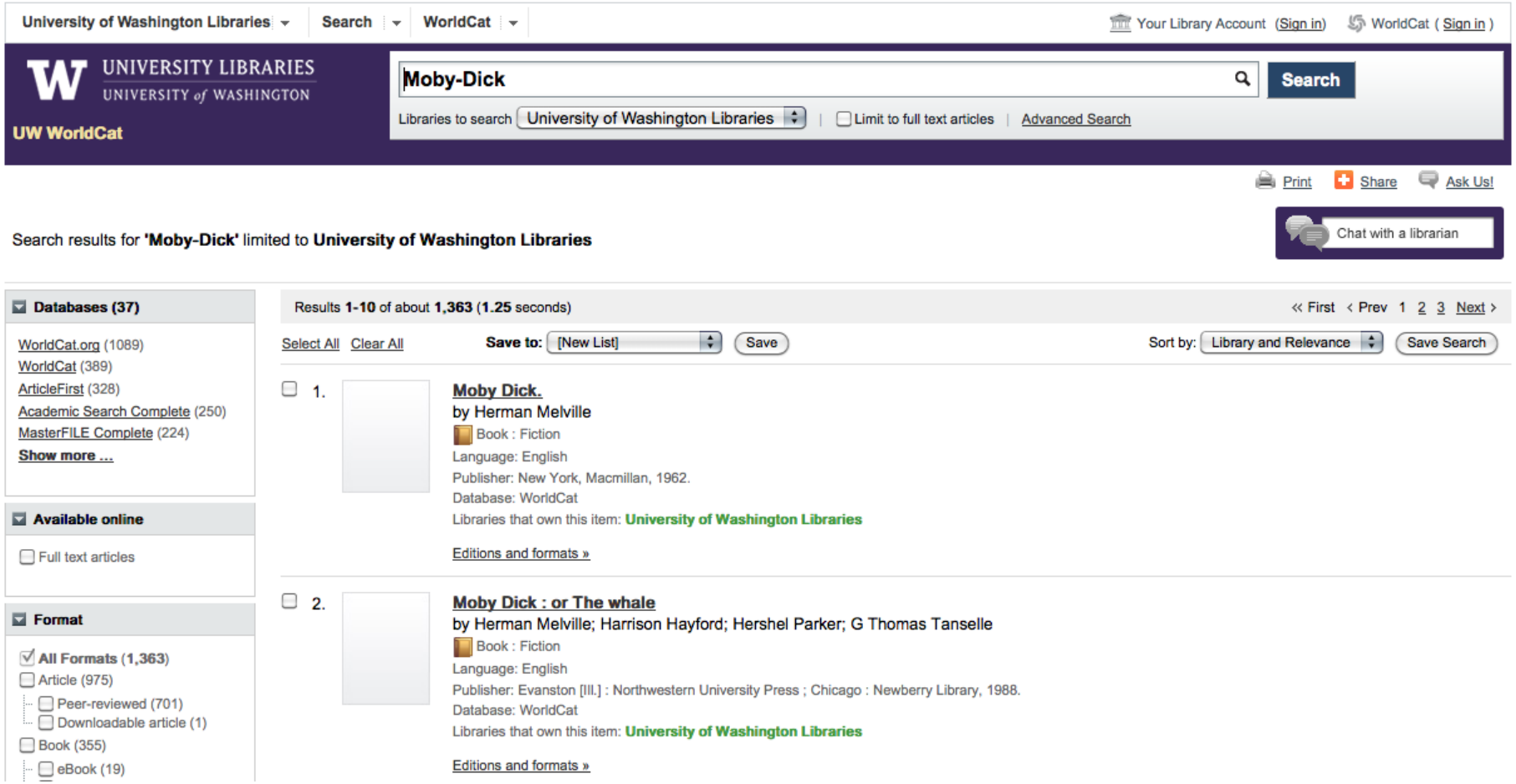
Refine My Results
Show Only
Available in the Library (7)
new_publication (2)
Full Text Online (9,773)
Peer Reviewed (3,959)
Suggested New Searches
by this author/creator:
Melville, H
Bryant, John
ebrary, Inc
Seaman, Donna
Umstead, R. Thomas
on this subject:
American Literature
Book Reviews
1800-1899
Melville, Herman(1819-1891)
Novel

Web Scale Discovery: WorldCat Local

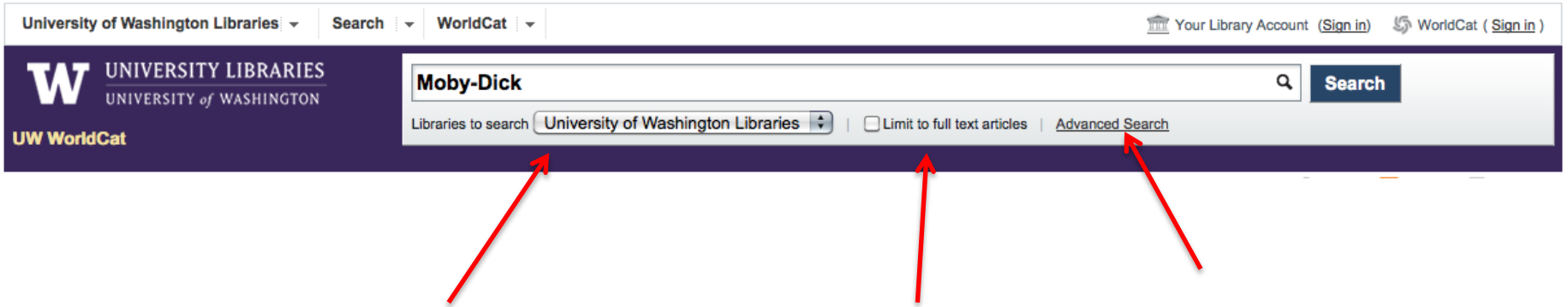


http://uwashington.worldcat.org/

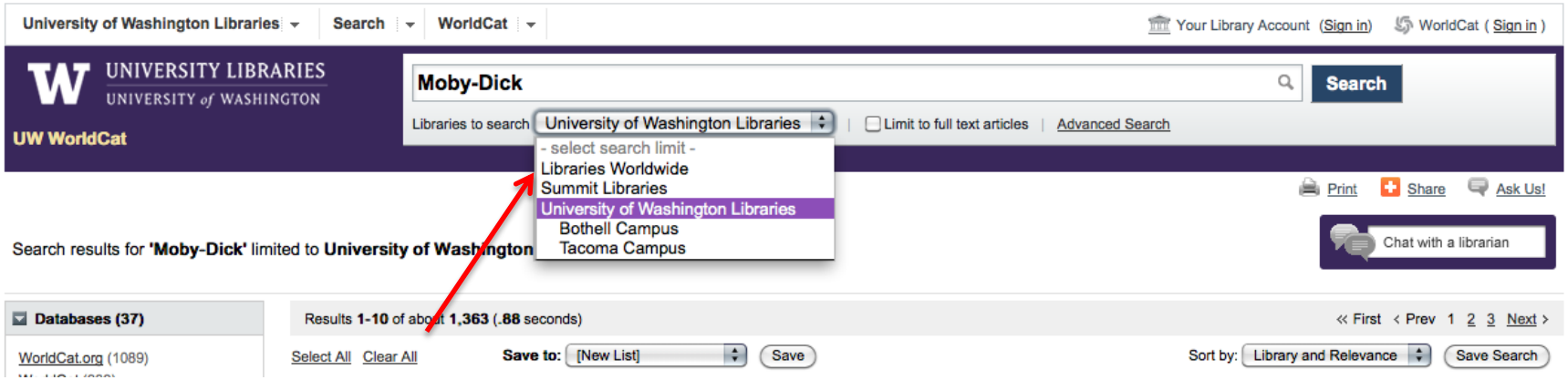
Web Scale Discovery



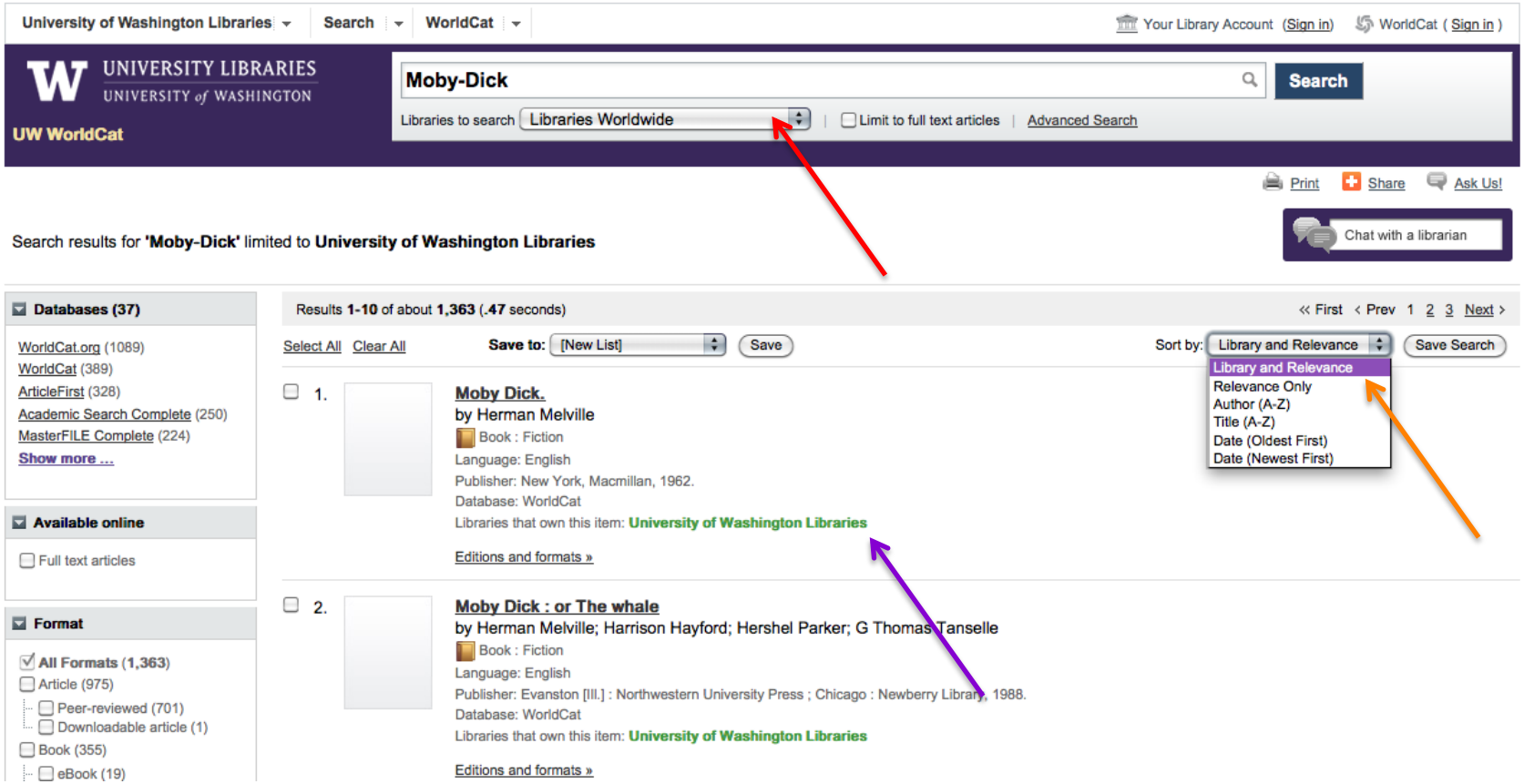
Web Scale Discovery



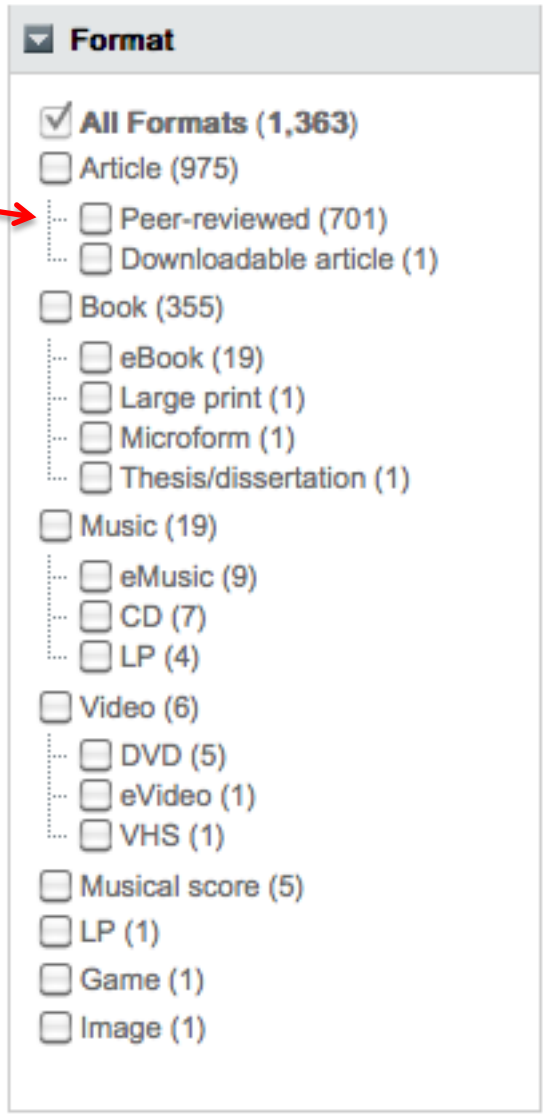
Web Scale Discovery

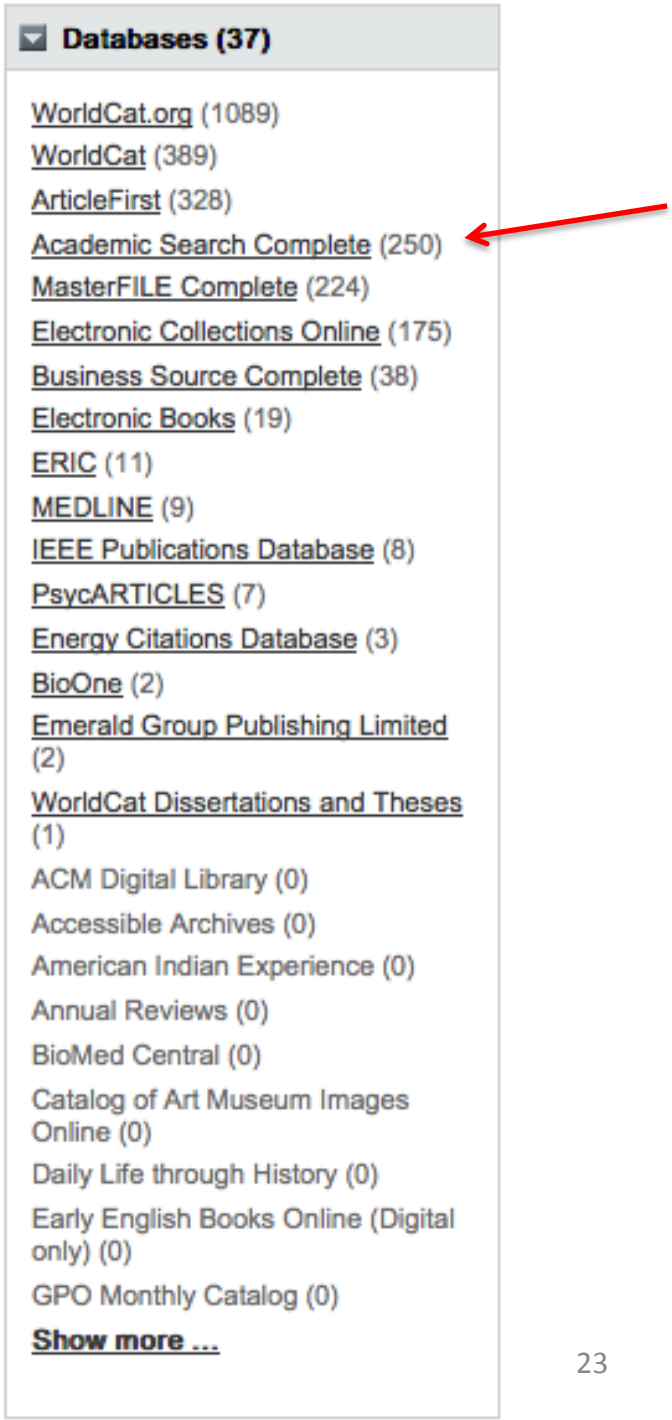


Web Scale Discovery



Web Scale Discovery: Formats and Databases





Web Scale Discovery: Facets

Language

English (1030)
French (19)
German (15)
Italian (7)
Multiple languages (3)
Spanish (3)
Japanese (2)
Chinese (1)
Norwegian (1)
Polish (1)
Portuguese (1)
Undetermined (1)

Content

Fiction (38)
Non-Fiction (1325)
Biography (26)
Peer-reviewed (701)

Audience

Juvenile (6)
Non-Juvenile (1357)

Topic

Language, Linguis... (291)
Music (19)
Performing Arts (15)
Art & Architecture (11)
Library Science, ... (8)
Geography & Earth... (7)
History & Auxilia... (5)
Biological Sciences (4)
Business & Economics (4)
Philosophy & Reli... (3)
Sociology (3)
Government Documents (3)
Anthropology (2)
Agriculture (1)
Computer Science (1)
Education (1)
Medicine By Disci... (1)
Physical Educatio... (1)
Political Science (1)
Psychology (1)
Engineering & Tec... (1)

Author

Herman Melville (31)
Melville Herman (7)
Spanos William V (7)
Wallace Robert K (7)
Bender Bert (6)
Bryant John (6)
Herbert T Walter (6)
Sachs Viola (6)
Vincent Howard P (6)
Wallace R K (6)
Armstrong Philip (5)
Harold Bloom (5)
Schultz Elizabeth (5)
Schultz Elizabeth A (5)
Stone Edward (5)
Wright Nathalia (5)
Bryant J (4)
John Bryant (4)
Buell L (4)
Elmore Owen (4)
Markels Julian (4)
Osherenko Gail (4)
Sanborn Geoffrey (4)
Armstrong P (3)
Bernardini Craig (3)
Show more ...

Year

2012 (41)
2011 (57)
2010 (75)
2009 (48)
2008 (69)
2007 (70)
2006 (47)
2005 (38)
2004 (37)
2003 (38)
2002 (27)
2001 (37)
2000 (48)
1999 (47)
1998 (44)
1997 (32)
1996 (48)
1995 (24)
1994 (25)
1992 (21)
1991 (21)
1986 (18)
1982 (18)
1978 (23)
1975 (23)
Show more ...

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Web Scale Discovery: Facets

Electronic Collections Online (8)
ArticleFirst (8)
Academic Search Complete (7)
MasterFILE Complete (5)
Show more ...

Available online

Full text articles

Format

All Formats
Peer-reviewed (24)

Refine Your Search

Author

Breitwieser Mitch... (1)
Broek M (1)
Bryant J (1)
Bryant John (1)
Deines Tim (1)
Show more ...

Year

« All Years
2011

Language

« All Languages
English

1. **Le Sphinx et l'abāime: sphinx maritimes et âenigmes romanesques dans 'Moby Dick' et 'L**
by Edward Ousselin
Article : Peer-reviewed
Language: English
Publication: French Studies, 65, no. 2 (2011): 258-259
Publisher: Oxford University Press
Database: ArticleFirst
Libraries that own this item: **University of Washington Libraries**

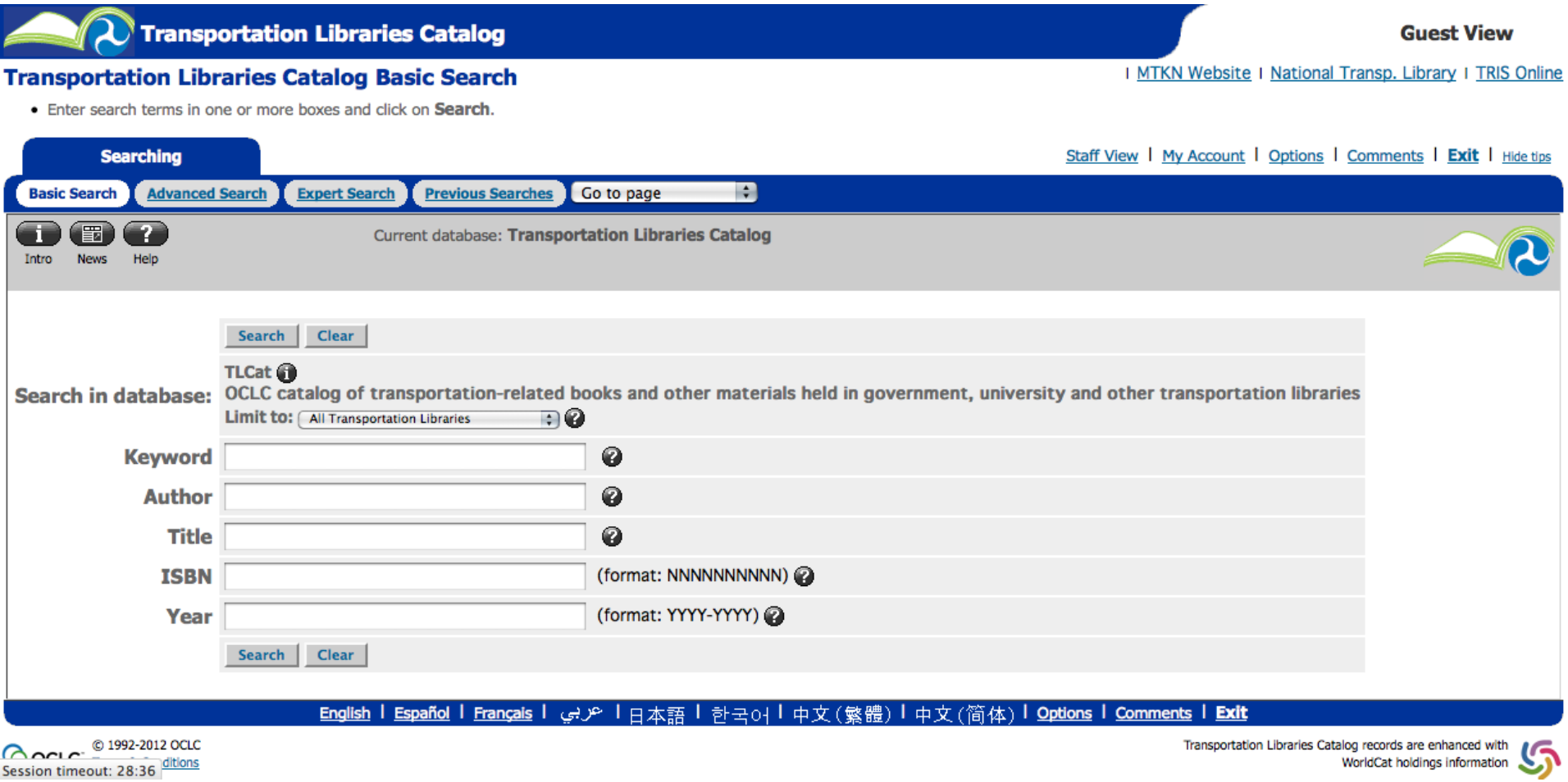
2. **Why Read Moby-Dick?**
by Charles C Nash
Article : Peer-reviewed
Language: English
Publication: Library Journal, 9/15/2011, Vol. 136 Issue 15, p76
Database: MasterFILE Complete
Libraries that own this item: **University of Washington Libraries**

3. **C. L. R. James's-Moby-Dick: The Narrative Testimony of the Non-Survivor**
by D E Pease
Article : Peer-reviewed
Language: English
Publication: LEVIATHAN, 13, no. 1, (2011): 34-44
Database: British Library Serials
Libraries that own this item: **University of Washington Libraries**

4. **Pacific Speculations: Moby-Dick and Mana**
by Mitchell Robert Breitwieser
Article : Peer-reviewed
Language: English
Publication: Arizona Quarterly: A Journal of American Literature, Culture, and Theory, 67, no. 1 (2011): 1-46

Transportation Libraries and First Search

http://firstsearch.oclc.org/WebZ/FSPrefs?entityjsdetect=:javascript=true:screensize=large:sessionid=fsapp8-55487-hadclx4l-jzqsdz:entitypagenum=1:0



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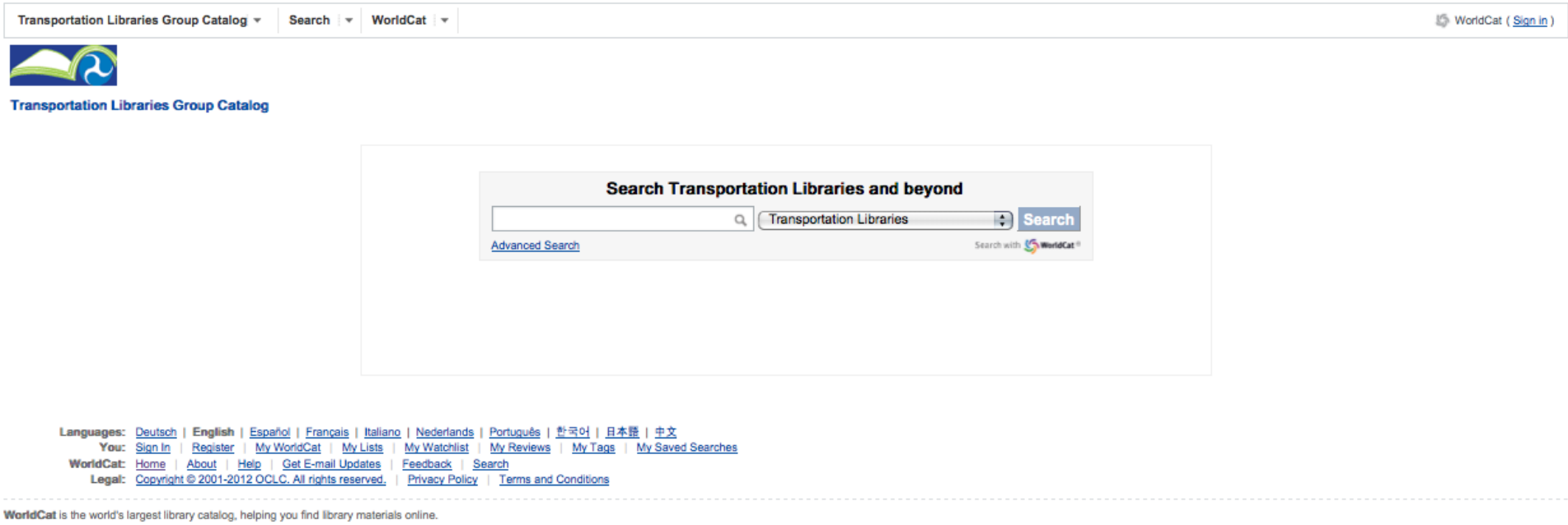
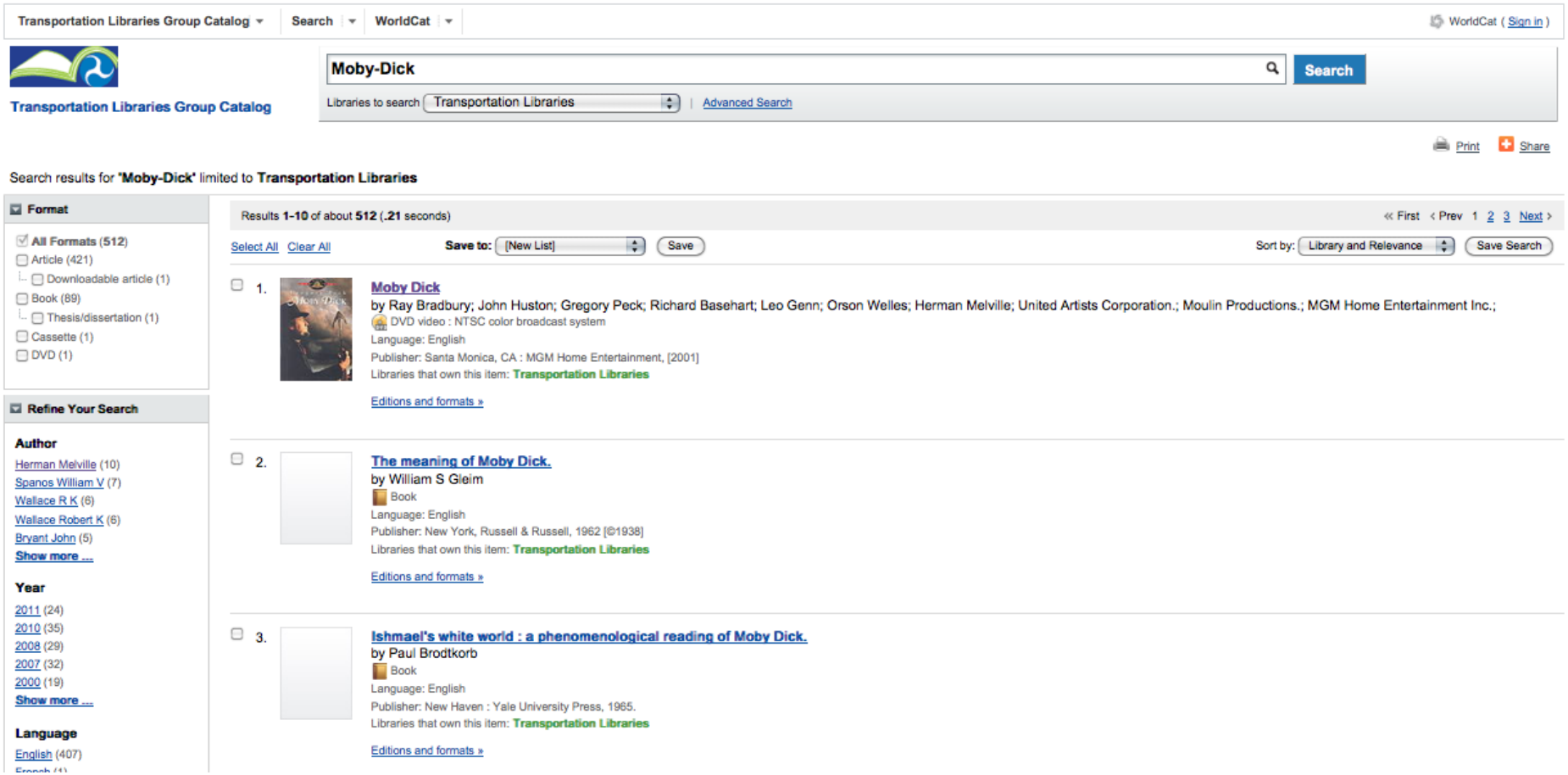
Transportation Libraries and First Search

Transportation Libraries and Web Scale Discovery

http://tlcat.worldcat.org/



Transportation Libraries and Web Scale Discovery: WorldCat Local



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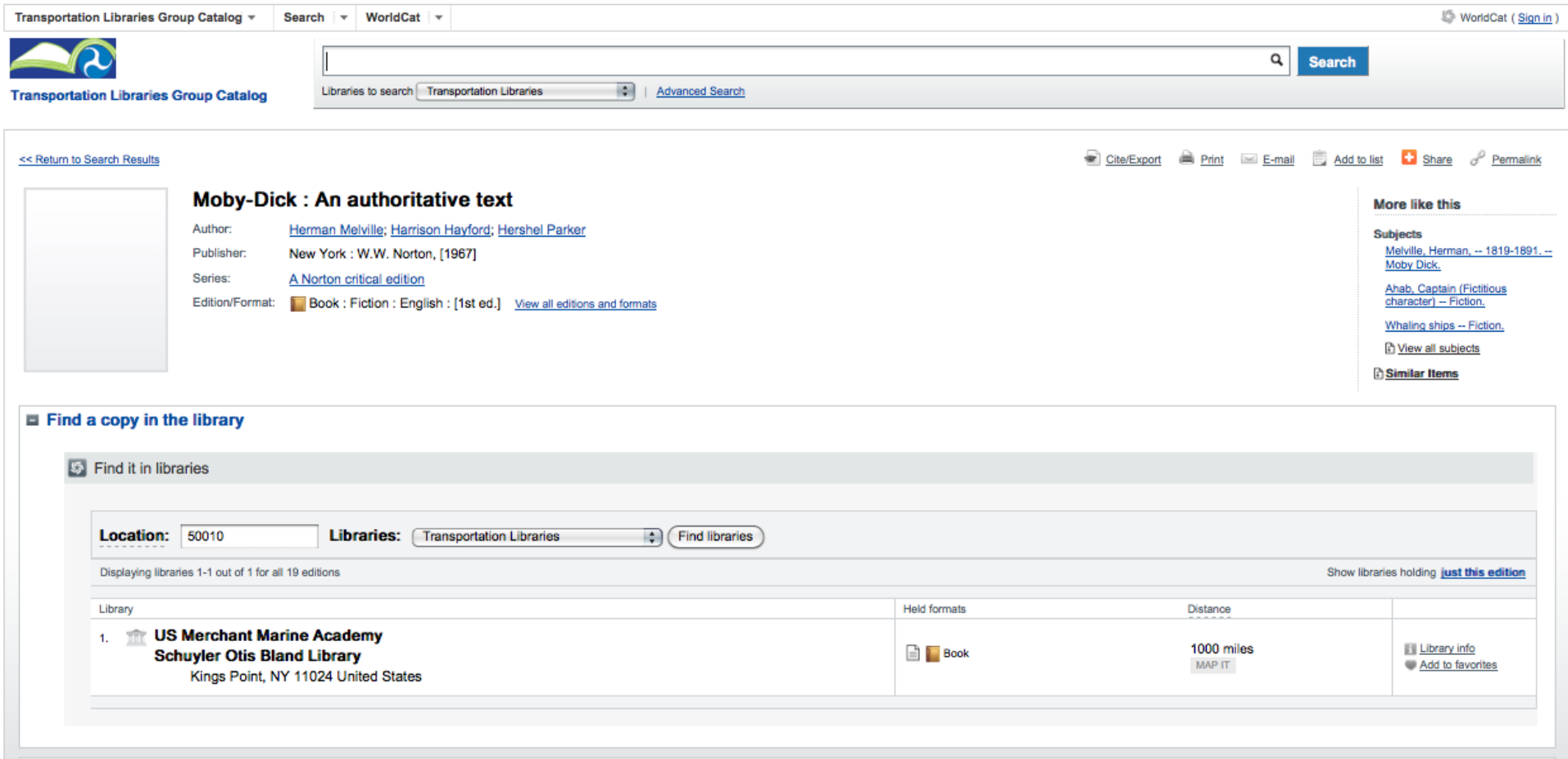
Moby-Dick in Transportation Libraries



Questions and Limitations

- Metadata
  - Consistent?
  - Supplied?
- Federated Search?
- User Experience?
- Full text?
- Ownership?
- Resources?

Metadata Failure

Federated Search vs. Web Scale?

- One search engine, many resources, not-indexed, live
- Resource search syntax?
- New user credentials?
- De-duplication of facets?
- Relevancy is a guess

- One search engine, one massive index
- 1 search syntax
- Usually 1 credential
- No dupes because of pre-harvesting, choose access
- Relevancy? (not sure)

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Full text?

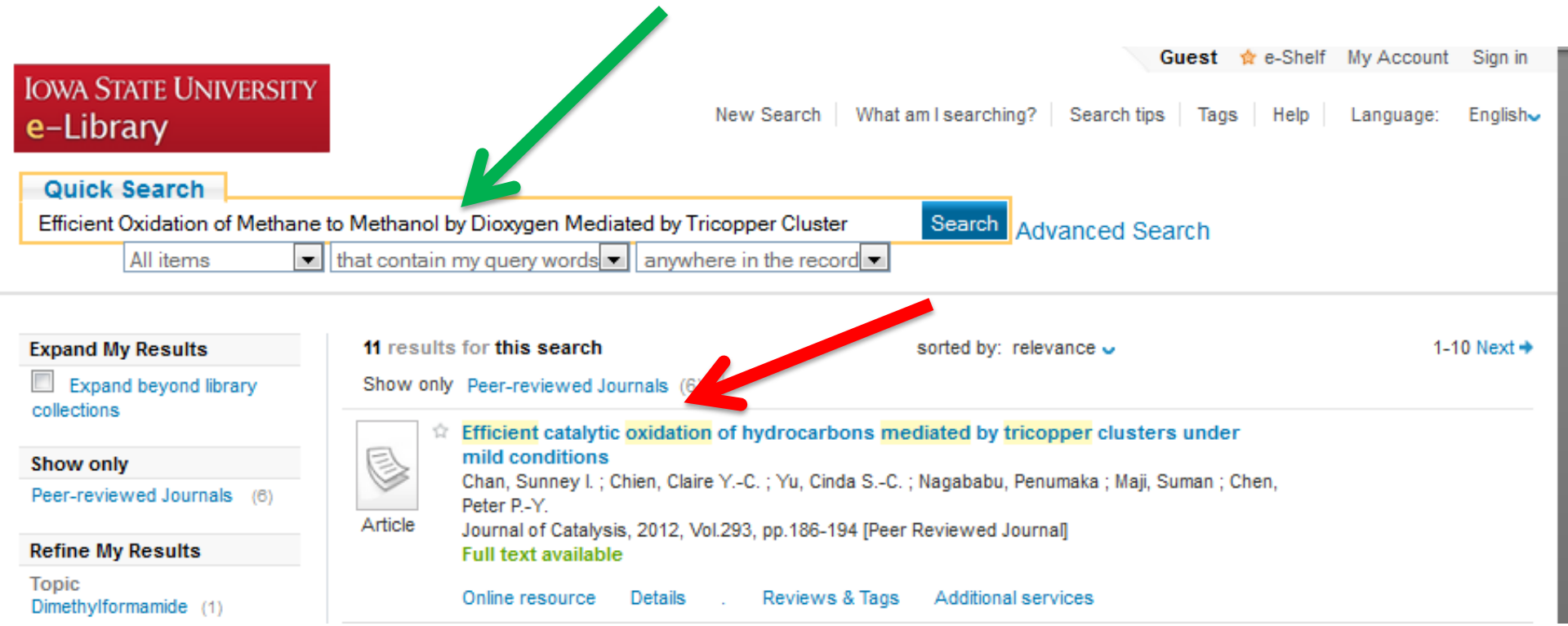
1. What is the relationship between web scale discovery and full-text repositories? How do you think they complement, contrast, and/or otherwise relate to one another?

2. If a library wants to include a full-text repository in a discovery tool, how would you suggest it deal with the reduced recall searches? In other words, searching just metadata could greatly impact recall. Are there best practices (or any practices at all) in addressing this issue? We don't want to necessarily force users to go to a native interface to be sure they got everything.

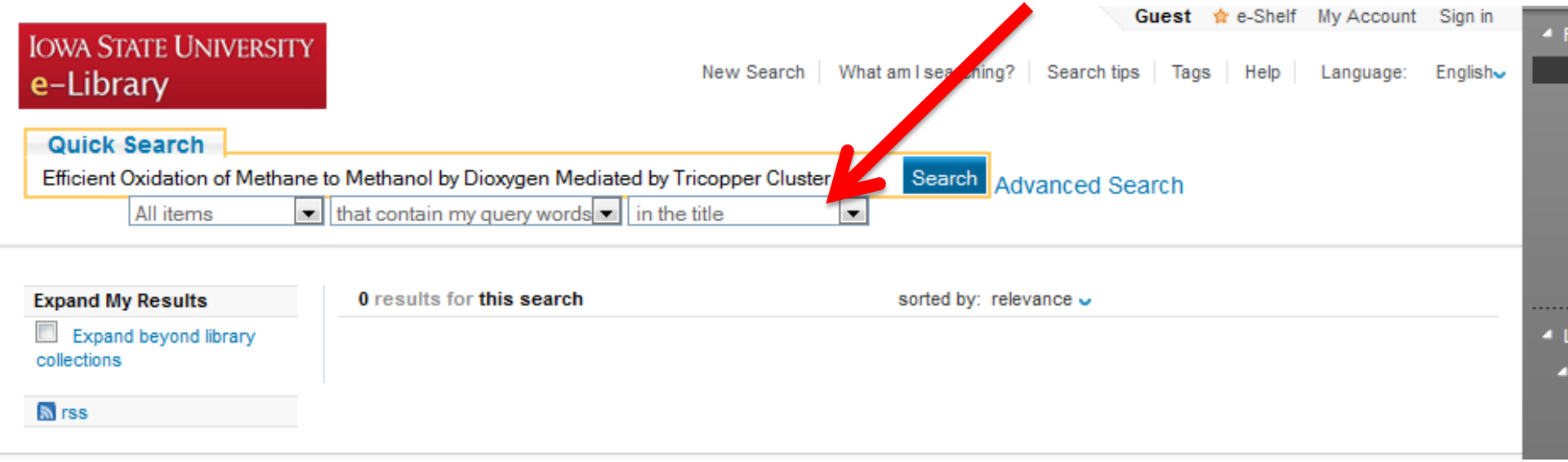
Ownership?

Content ownership – who owns what content in discovery tools and how does that impact the access vs. ownership acquisitions issue, if at all?

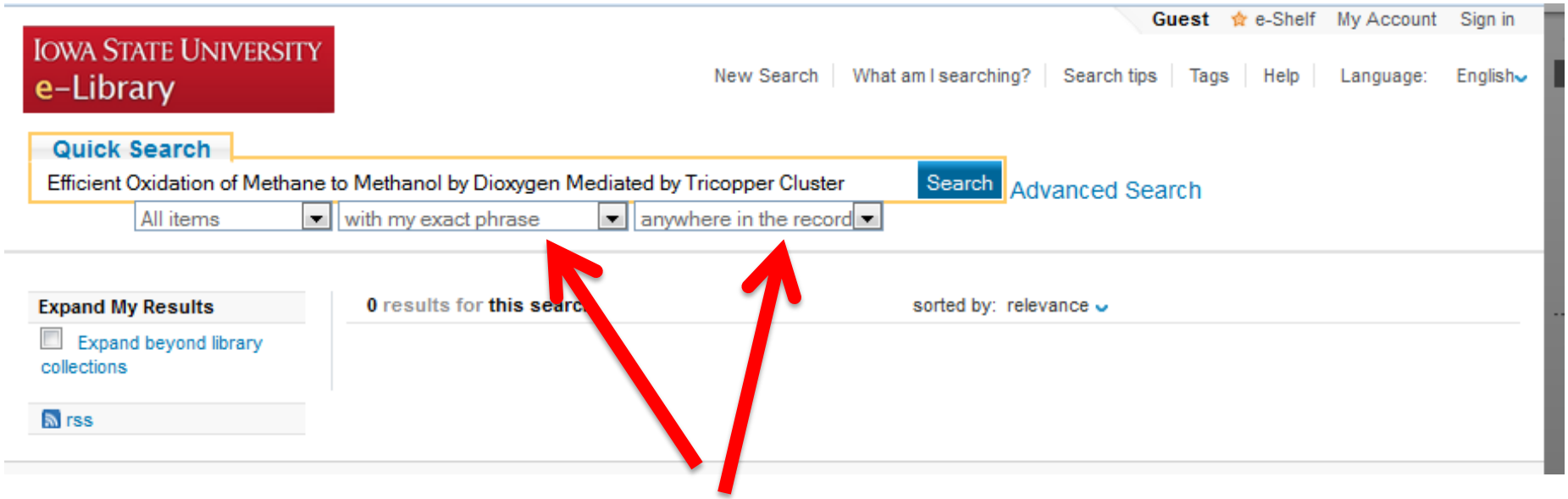
Indexing Depth or Agreement Failure



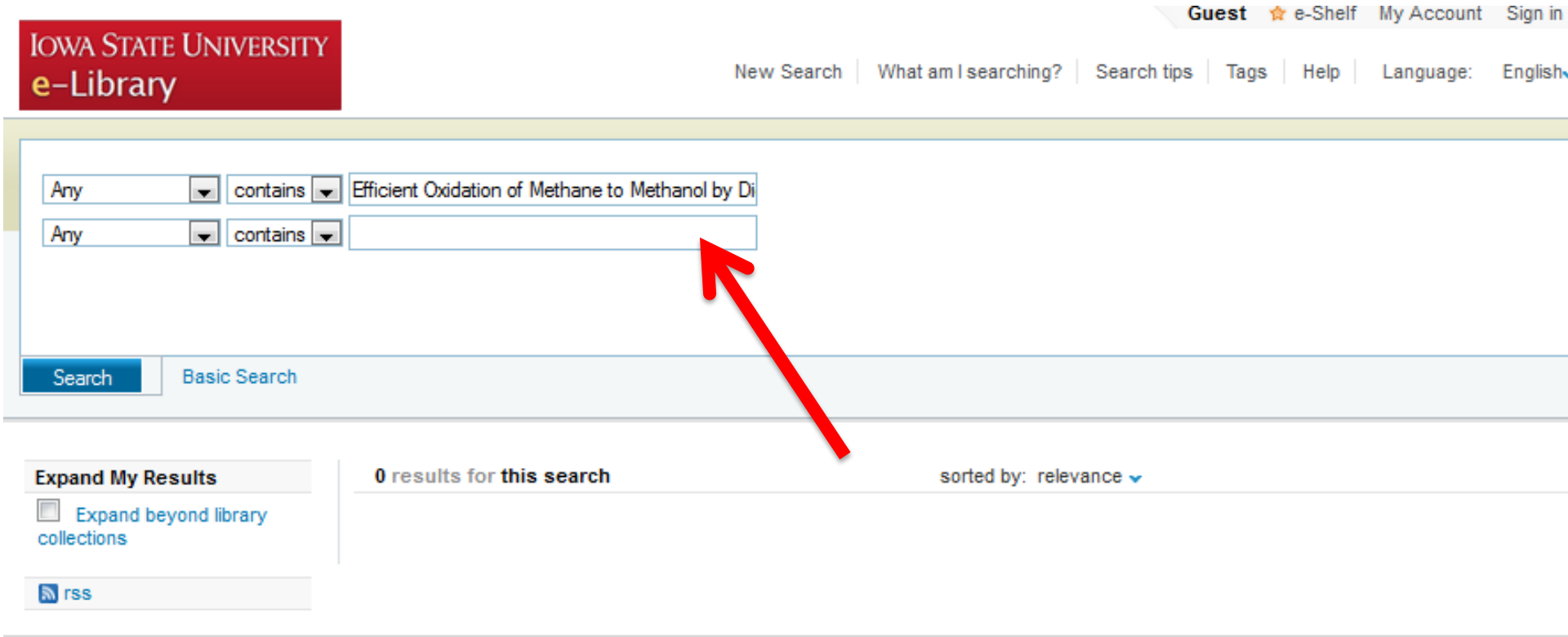
Indexing Depth or Agreement Failure



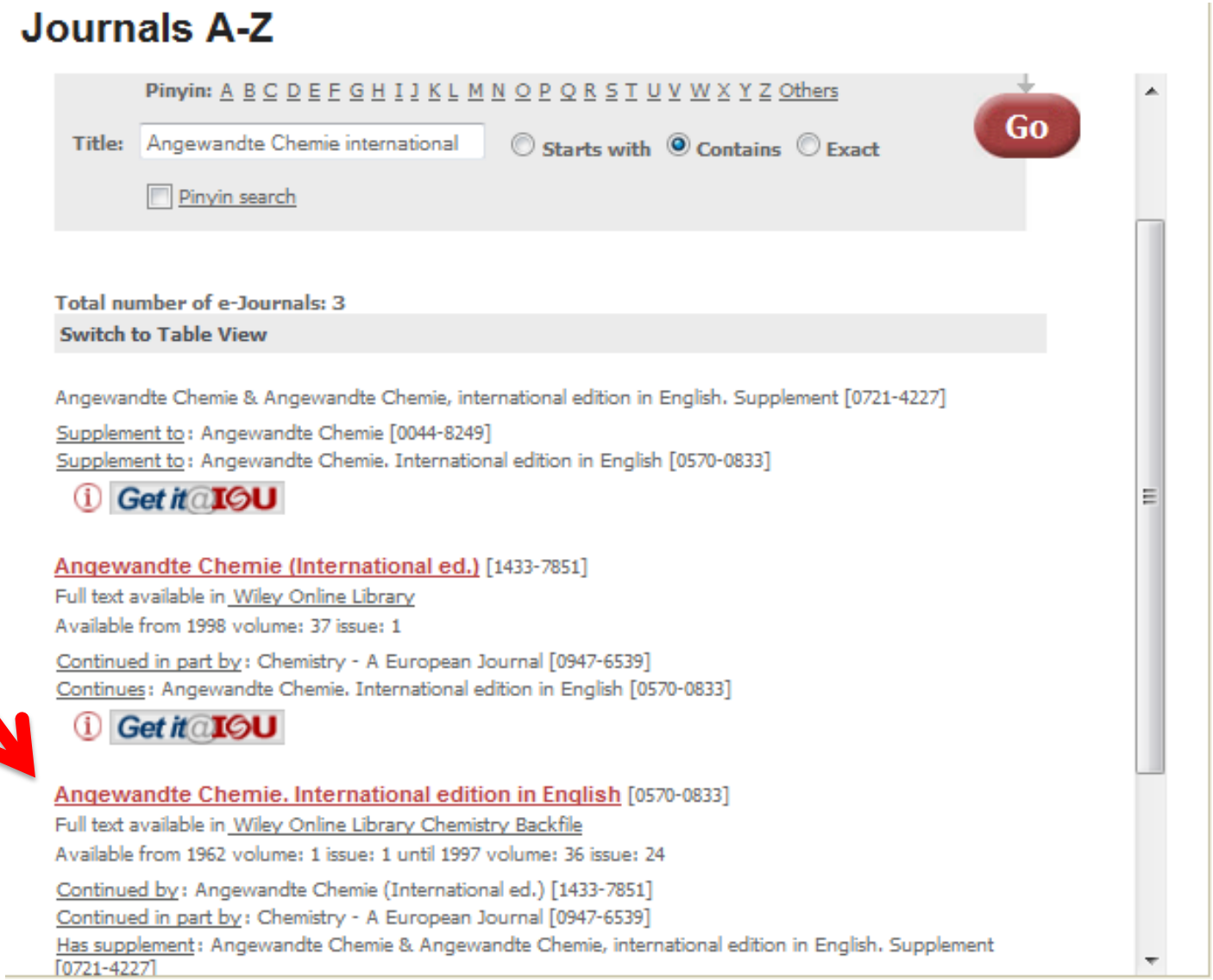
Indexing Depth or Agreement Failure



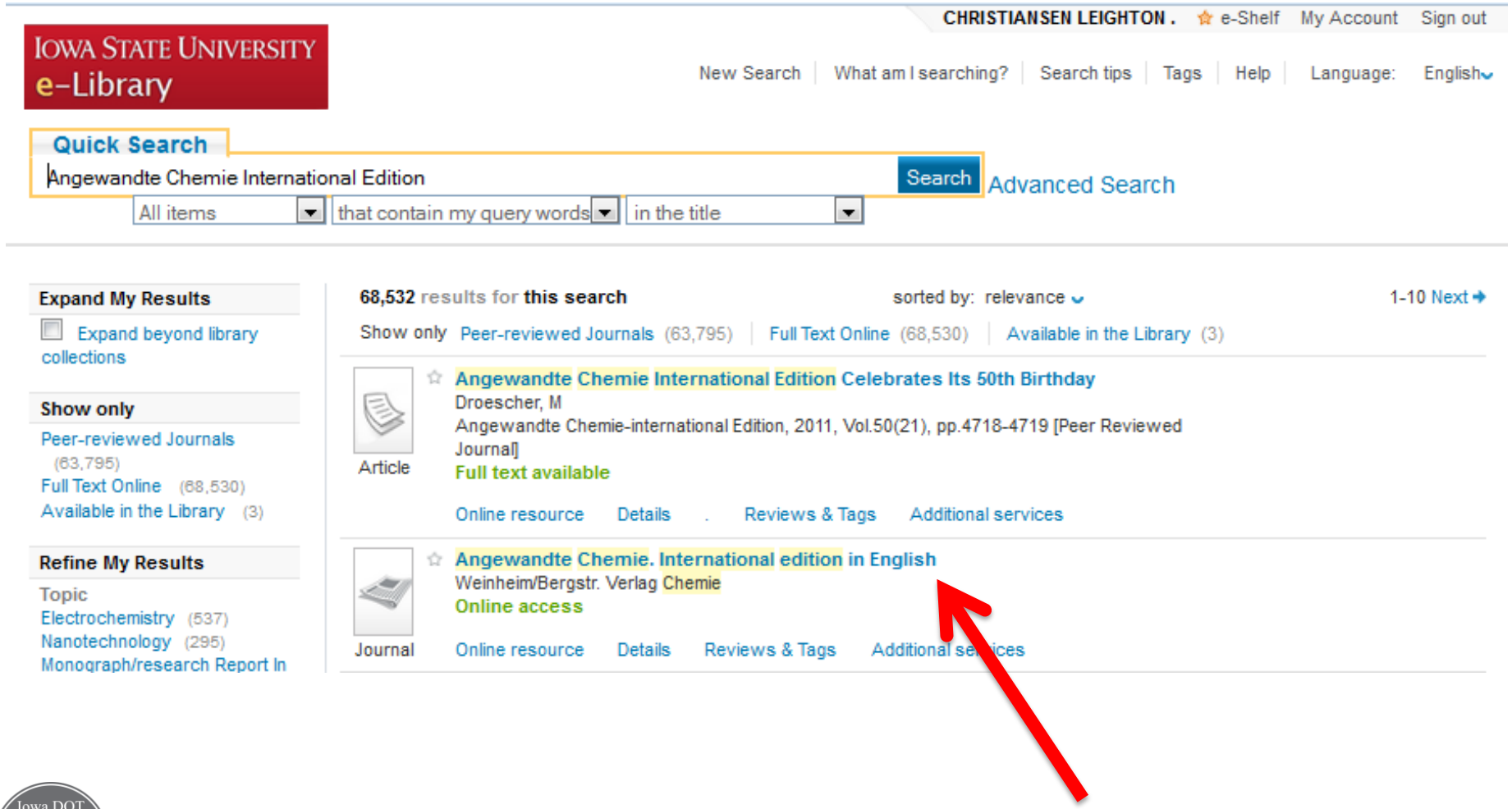
Advanced Search?



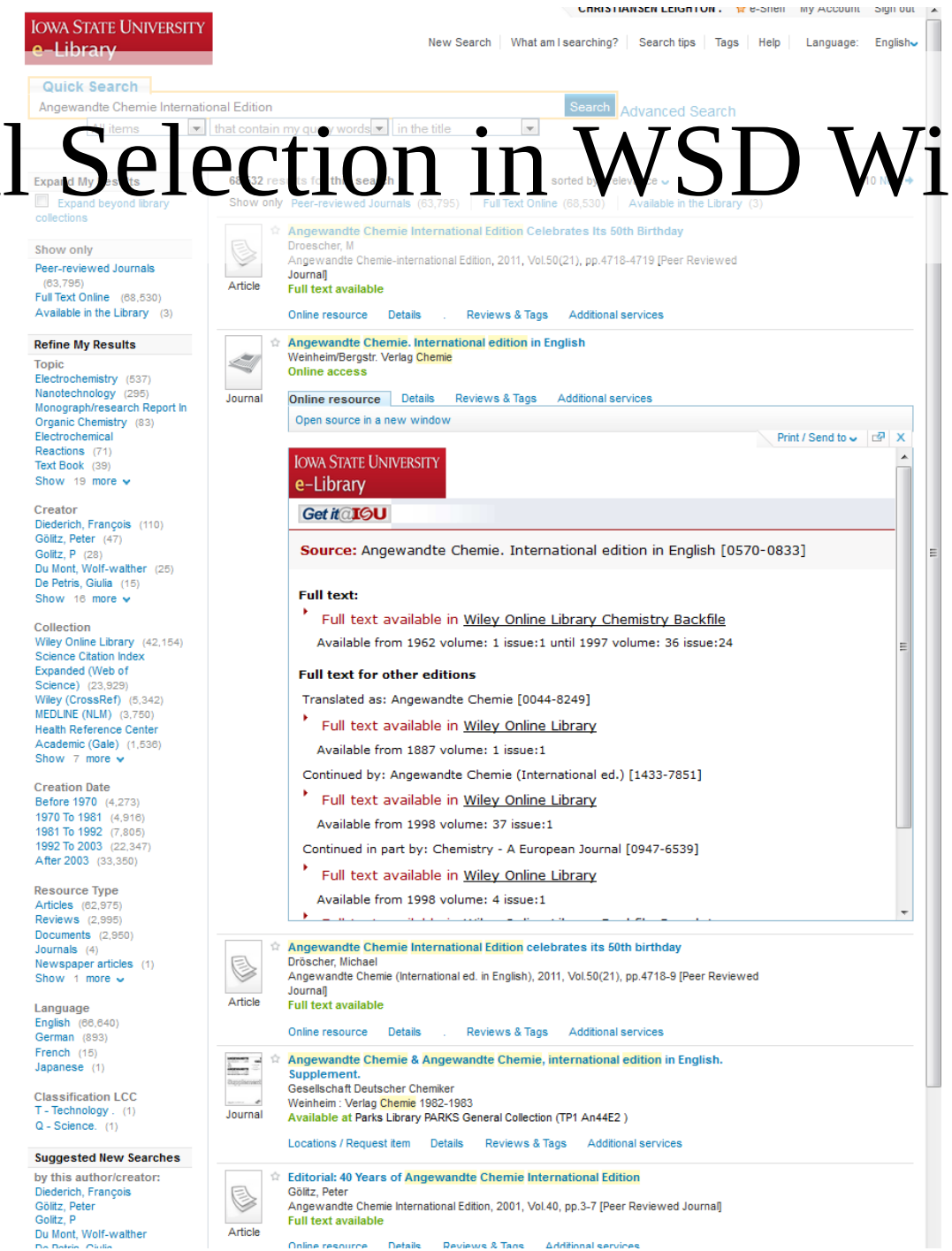
Out to Journals List



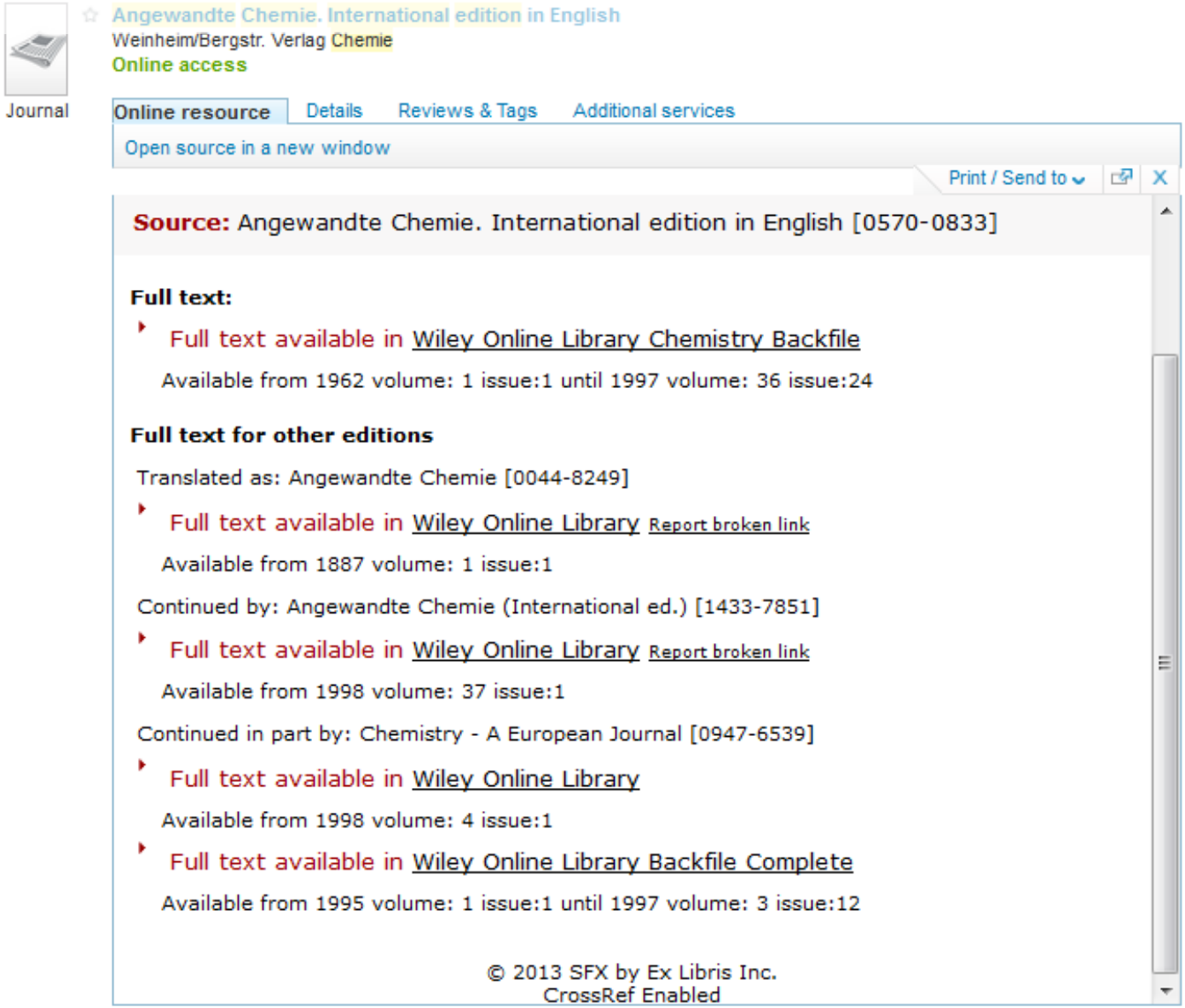
On-line Journal Discoverable



Journal Selection in WSD Window



Now Which One?



Revealing My Ignorance

Angewandte Chemie

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February 18, 2013

Volume 125, Issue 8
Pages 2183–2429

Previous Issue | Next Issue

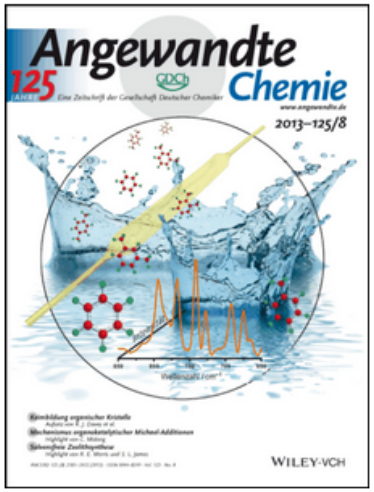
Select All | Save to profile | Export citation

Titelbilder | Jump to...

Titelbild: IR-ATR Chemical Sensors Based on Planar Silver Halide Waveguides Coated with an Ethylene/Propylene Copolymer for Detection of Multiple Organic Contaminants in Water (Angew. Chem. 8/2013) (page 2183)

Rui Lu, Dr. Guoping Sheng, Dr. Wenwei Li, Prof. Dr. Hanqing Yu, Dr. Yosef Raichlin, Prof. Dr. Abraham Katzir and Prof. Dr. Boris Mizaikoff

Article first published online: 1 FEB 2013 | DOI: 10.1002/ange.201300592



Schnelle In-situ-Analysemethoden wie im mittleren Infrarotbereich arbeitende optochemische Sensoren, die auf der Absorption evaneszierender Felder beruhen, können qualitative und quantitative Informationen über das Vorliegen flüchtiger organischer Verunreinigungen in Wasser liefern. In der Zuschrift auf S. 2321 ff. beschreiben B. Mizaikoff et al. einen planaren Faseroptiksensor mit Copolymerüberzug, der die abgeschwächte Totalreflexion im Infrarotbereich misst. Solche Systeme können zur kontinuierlichen Überprüfung der Wasserqualität genutzt werden.

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Iowa DOT Library

Resources

What resources (fiscal, human, etc.) does a library need to enter into web scale discovery game?

Challenges

- Patron search habits
- Infrastructure for WSD
- Institutional commitment
- Educating patrons
- Resources ($)
- Metadata
- Librarians & Catalogers

Conclusions

- New tech, tech breaks
- WSD can improve search precision
- Metadata is the key
  - Consistent
  - Robust
- Improved search and retrieval: lead patrons back into our collections

Thanks for listening

Questions?

Iowa DOT Library
Iowa Department of Transportation