Metropolitan Museum of Art, NYC

1 October 2010

On Competition for Catalogers

By: zsrlibrary

http://www.flickr.com/photos/zsrlibrary/4009251446/

Karen Calhoun
calhounk@oclc.org

OCLC™ The world's libraries. Connected.

Miles Franklin, 1879-1954 Author of *My Brilliant Career*

Photo: State Library of New South WalesCollection.
http://www.flickr.com/photos/statelibraryofnsw/3346071500/

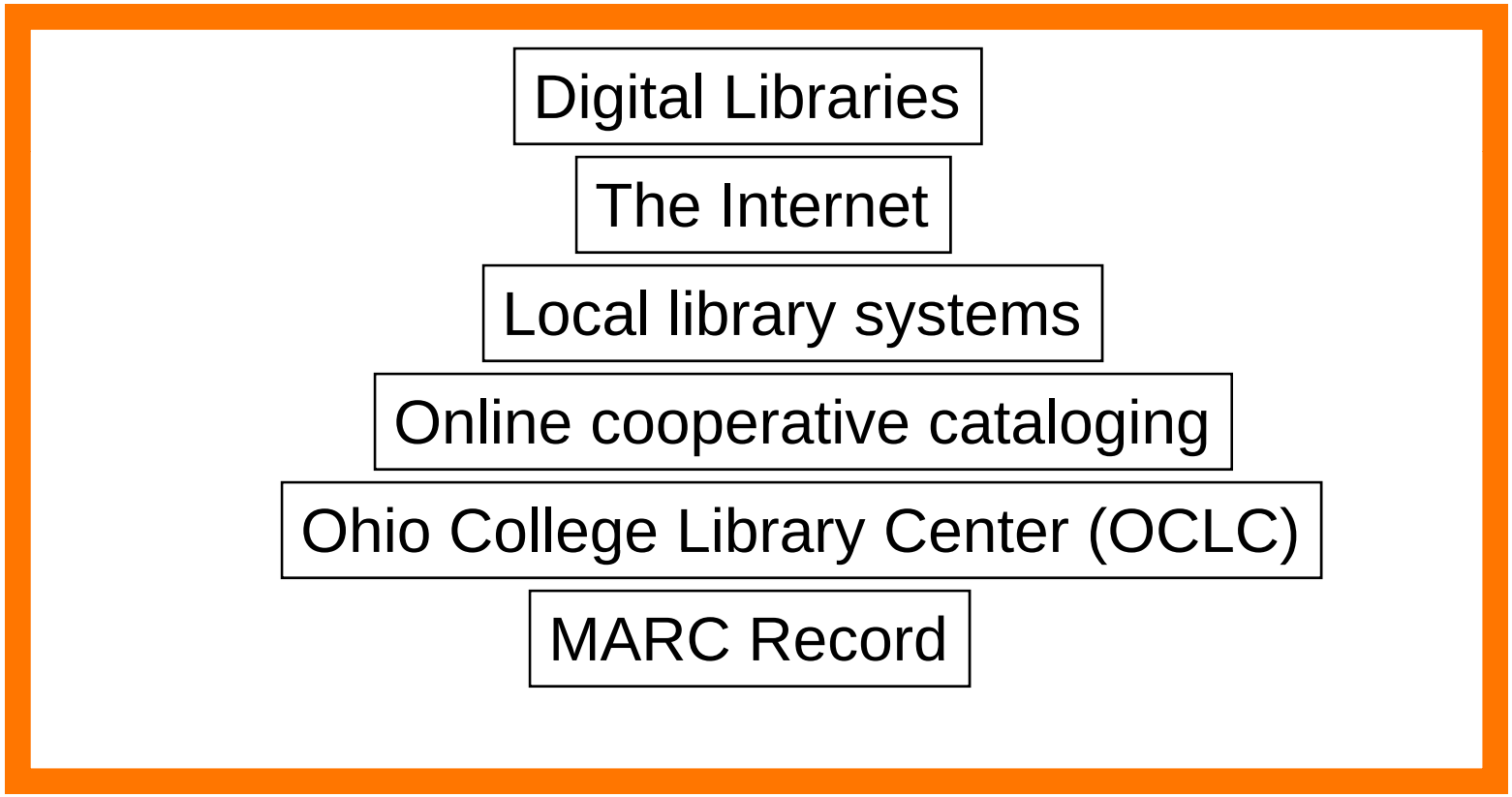
Outline

1. Paying attention to what has changed
2. Getting involved in solutions
3. Meeting the challenges

Step 1. Paying attention to what has changed

- Technology has changed
- Collections have changed
- Information seekers have changed
- Metadata has changed

30+ Years of Technological Advances in Technical Services



Early 21st Century Technical Services Landscape

Bibliographic Control & Metadata	Desktop (TS Workstation)	Data Management	The Web
New sources/types of records	Network, hardware and software administration	Relational Data Management	Authoring
New workflows	Transitions to new library systems (Windows, Web clients)	SQL: queries and reports	Publishing
New metadata standards	Macros; impt. of ergonomics	More data manipulation, less data entry	Web site organization and management
E-resources and digital collections	Growing number of applications	Global change	Digital library management systems

Source: Calhoun, Karen. Technology, productivity, and change in library technical services. Library Collections, Acquisitions, and Technical Services Volume 27, Issue 3, Autumn 2003, Pages 281-289

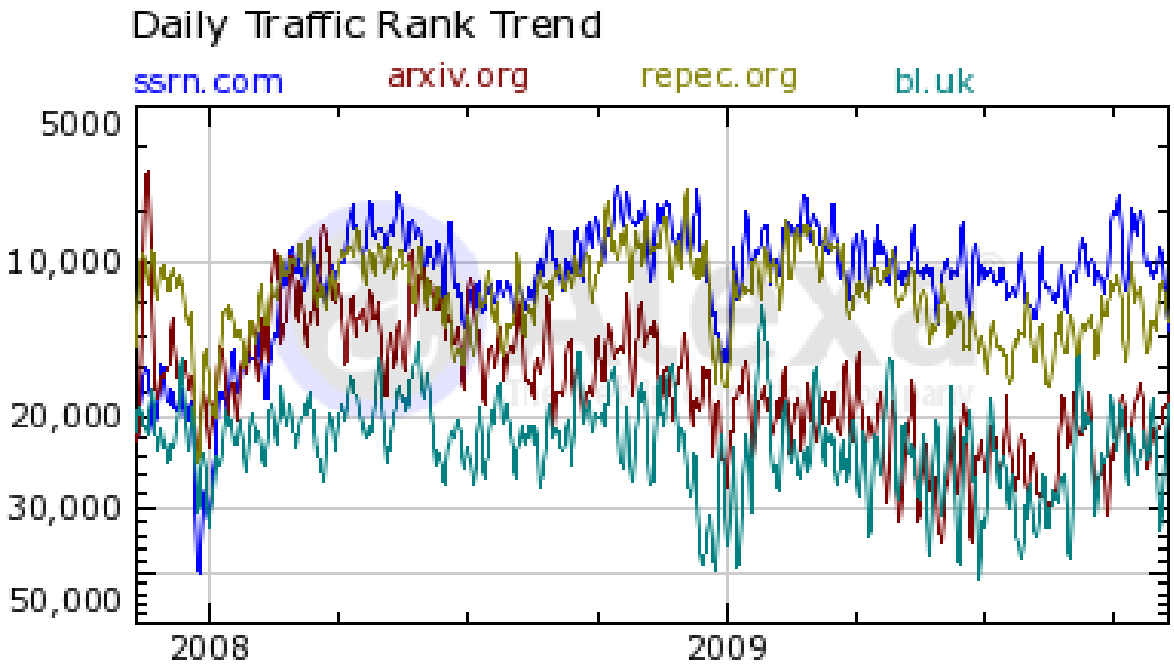
What Is “The Collection”?

“[T]he stuff of cultural heritage collections, digital assets, pre-print services and the open Web, research labs, and learning management systems remains for the most part outside the scope of the catalog.

Scholarly information objects now include digitized rare and historical materials, textual primary source materials, graphical images, materials described in institutional and disciplinary repositories, conference Web sites, scholarly Web sites … data sets, software, simulations, a rising array of multimedia resources, learning objects and courses—the list goes on.”

Calhoun, Karen. *The changing nature of the catalog and its integration with other discovery tools.* Washington, DC: Library of Congress, 2006. http://www.loc.gov/catdir/calhoun-report-final.pdf

Open Access Repositories Gaining Visibility and Impact



2008-2009 Traffic Compared:

***Social Science Research Network**

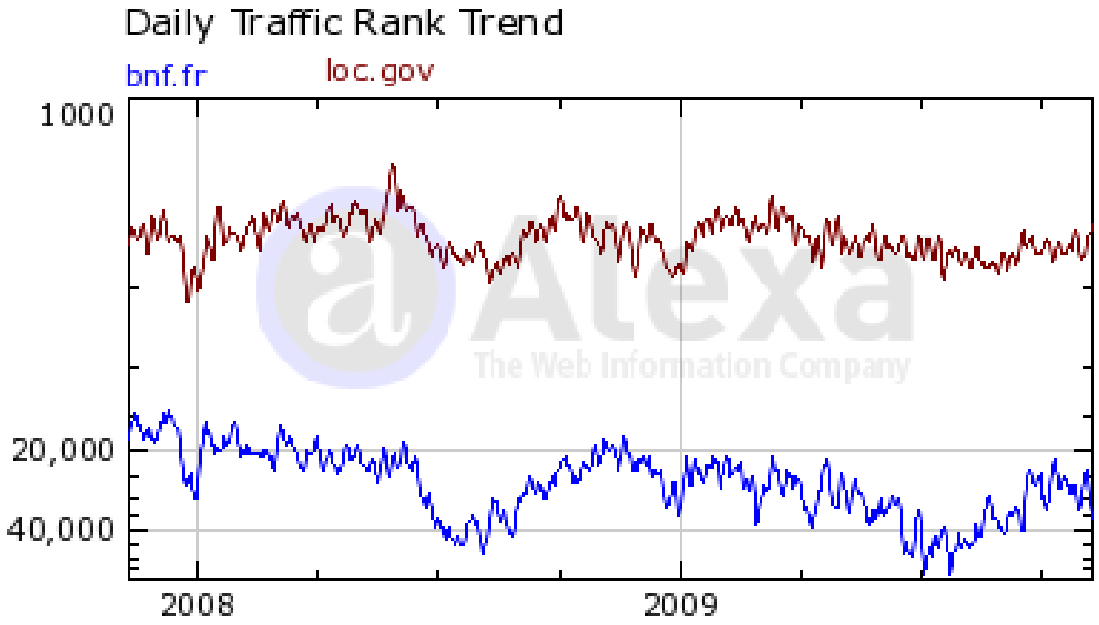
***arXiv.org**

***Research Papers in Economics**

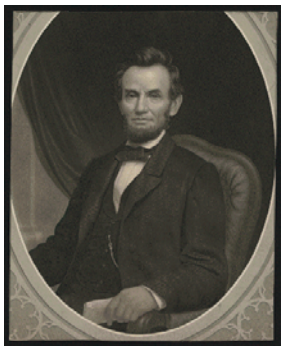
***British Library (bl.uk)**

Sources: Alexa.com 15 Nov 2009 and the Cybermetrics Lab's ranking of top Repositories (disciplinary and institutional) at http://repositories.webometrics.info/about.html

Rising Interest in Digital Collections on the BnF and LC Web Sites



Source: Alexa.com, 15 Nov 2009



Where do people go on bnf.fr and loc.gov?

BnF:

Expositions: 30%

Catalogue: 26%

Gallica: 26%

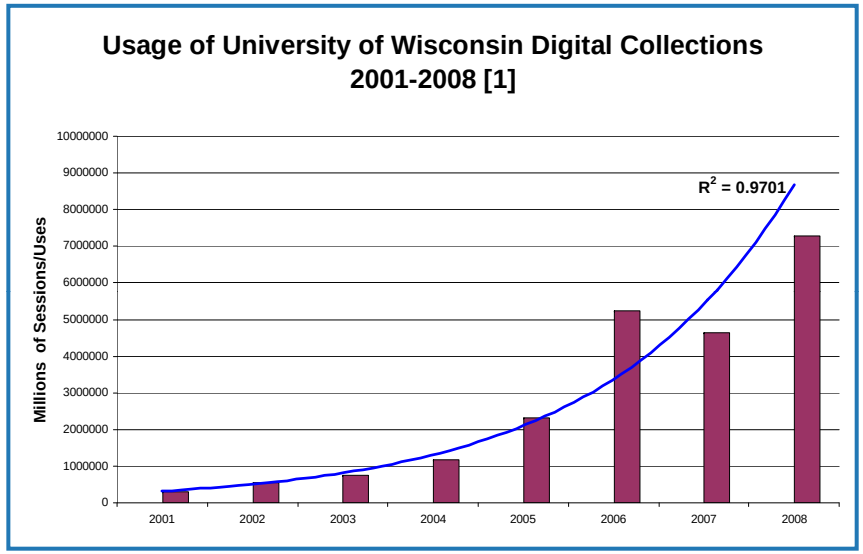
LC:

American Memory: 41%

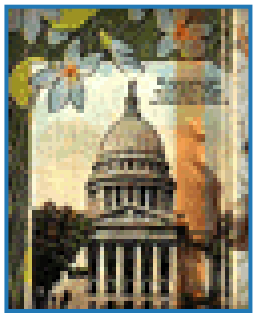
Catalog: 17%

Legislative information (THOMAS): 6%

Research into use and users of digital library collections



"The function of searching across collections is a dream frequently discussed but seldom realized at a robust level. This paper … discusses how we might move from isolated digital collections to interoperable digital libraries."
—Howard Besser



"Digital libraries, far from being simple digital versions of library holdings, are now attracting a new type of public, bringing about new, unique and original ways for reading and understanding texts."—BibUsages Study, BnF, 2002

The Search Engine Challenge

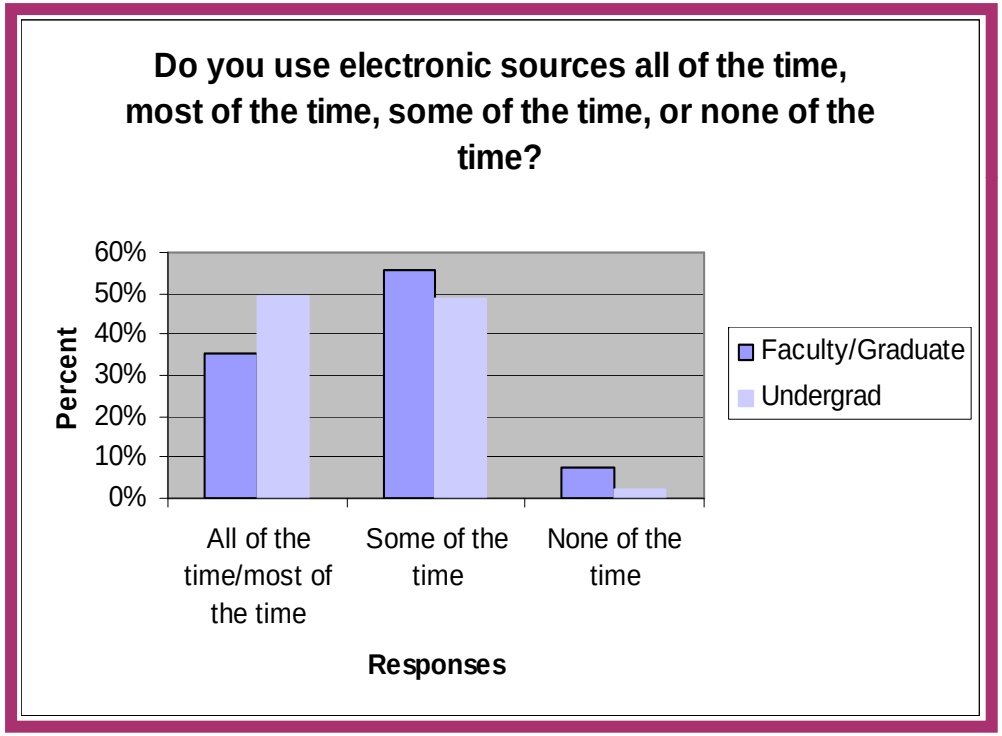
Q: **Where do you typically begin your search for information on a particular topic?**

Search Engines		Library Portals
84%		**2%**

From OCLC: *Perceptions of Libraries and Information Resources (2005)*

What Did Users Say They Want? (2002)

- **Faculty and students do more work and study away from campus**
- **Loyal to the library, but library is only one element in complex information structure**
- **Print still important, but almost half of undergraduates say they rely exclusively or almost exclusively on electronic materials**
- **Seamless linking from one information object to another is expected**
- ***Fast forward to 2010:*** **these trends many times stronger!**



http://www.clir.org/PUBS/reports/pub110/contents.html

The Toppling Silos of the Disciplines and Mind-Boggling New Forms of Scholarly Communication

Elinor Ostrom at 2009 Nobel prize press conference

Attribution: © Prolineserver 2010, Wikipedia/Wikimedia Commons (cc-by-sa-3.0)

Elinor Ostrom, 2009 Nobel Prize, Economics

Born: Los Angeles

Fields: Political theory, policy analysis, economics

-- How does the library help her create new knowledge?

-- What are her information seeking/sharing behaviors and preferences?

-- In what ways does the library serve her colleagues and her graduate and post-doctoral students?

And Then There's Today's (and Tomorrow's) Student

By: acroamatic

http://www.flickr.com/photos/acroamatic/387565075/

Tech-savvy

Nimble

Enthusiastic

Achievement-oriented

"We're special"

Online Catalogs:
What Users and Librarians Want

http://www.oclc.org/us/en/reports/onlinecatalogs/default.htm

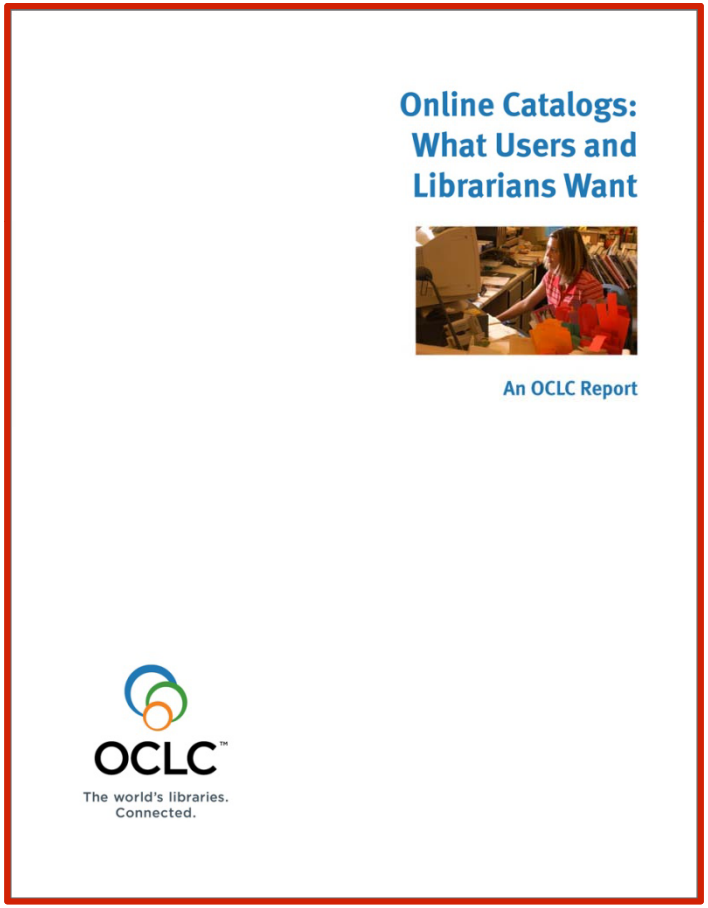
End-Users expect online catalogs:

to link directly to content

to look like popular Web sites

to have summaries, abstracts, tables of contents

"The end user's experience of the *delivery* of wanted items is as important, *if not more important,* than his or her *discovery* experience."—page 11.



Evolution: Metadata B.W. and A.W.

B.W. (Before the Web)

- For finding and managing library materials (mostly print)
- Catalog records (well-understood rules and encoding conventions)
- Shared cooperative cataloging systems
- Usually handcrafted, one at a time

A.W. (After the Web)

- For finding and managing many types of materials, for many user communities
- Many types of records
- Loosely coupled metadata management, reuse and exchange services among multiple repositories
- Automated creation and metadata extract, conversion, mapping, ingest and transfer services

Step 2: Getting involved in the solution

- **Focusing on the needs that technical services meets rather than the methods and systems we have traditionally used**
- **Aligning technical services priorities with library priorities**

A Strategy for Libraries and the Organizations That Serve Them

Internal and external pressures

- External: library user communities have many choices for discovering the info they need
- Internal: lost opportunities because staff skill sets lag behind

Mandate: Carry forward/enable the library's role to organize information for its communities

- Apply this role in the digital age
- Embrace *metadata management* as a sustainable strategic advantage
- Focus on the needs we meet rather than the traditional methods/systems we have used

Competition for Staffing Resources to Assign to New Initiatives in Libraries

- New services for [fill in the blank]
- Engage with institutional or community-based repositories
- Scholarly publishing expertise/communications
- Support for digital asset management in the communities served
- Develop new alliances, partnerships
- Reveal “hidden collections”
- Integrate library into learning management systems, teaching and research, portals, scholar’s workstation, personal productivity tools
- 24/7 access
- Major space renovation
- Offsite storage
- Next generation systems

Meanwhile …
behind the scenes …

… the demands of processing the print/AV collections continues to dominate how technical services staff spend their time

Typical TS Goals, Operations, Projects and Priorities

Typical Library Technical Services FTE Allocations? (Rough Estimate)

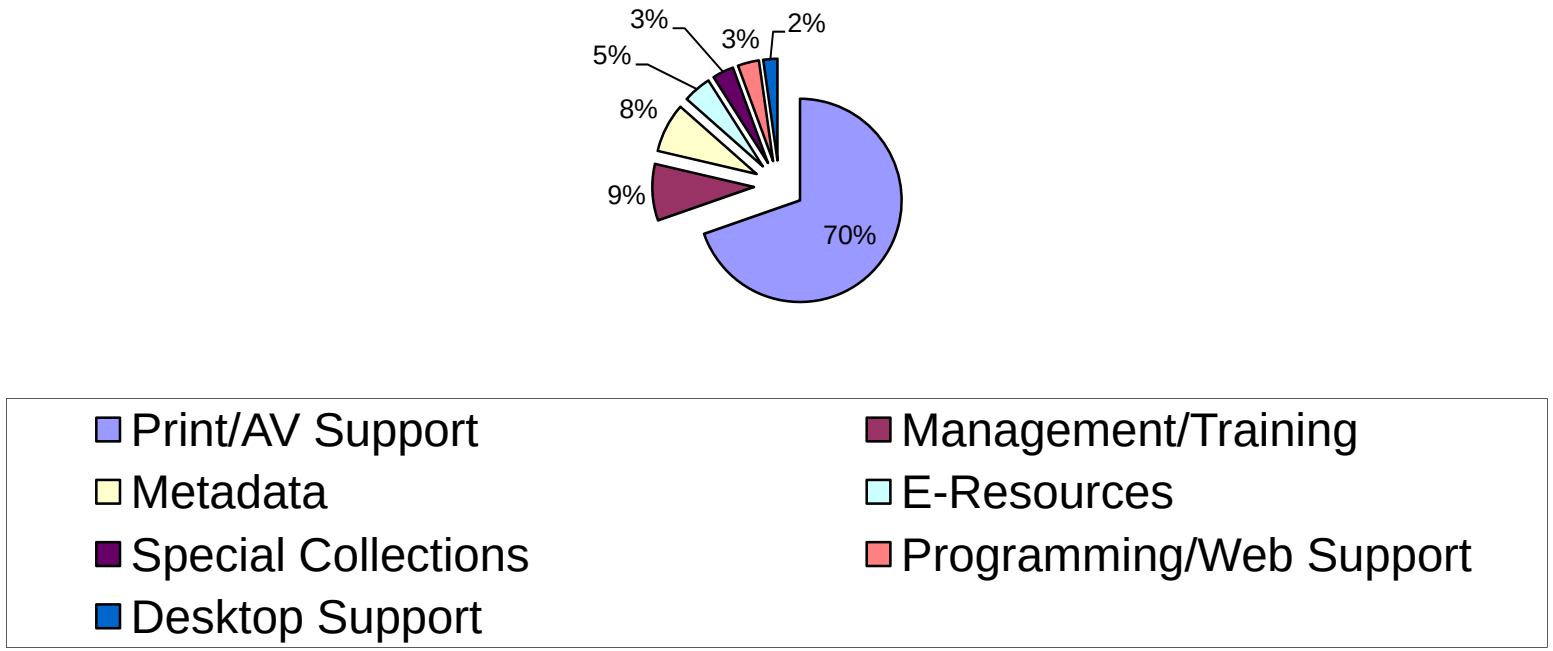


Table 1: Challenges Facing Traditional cataloguing

Affordability and Scalability	Expense of cataloging Rapid growth of Web resources and digital assets Need more than descriptive metadata Interoperability issues
Competition for Resources to Develop New Library Services	Shrinking tech services departments Streamlining tech services workflows Increasing use of external sources of data; automated cataloging methods
Significance of the Catalog	Catalog is one part of a much larger infosphere Many new types of scholarly information objects not covered by catalog

Table 2 : Forecasts and Implications for Metadata Specialists

Increasing investment in discovery systems	Help build new kinds of systems for discovery and delivery; many new kinds of metadata; emphasis on re-use, interconnections, interoperability
Active participation in the community	Project and team-based workplaces; involvement in digital asset management; metadata creation and consulting work; decreasing involvement in traditional cataloguing duties
Technology-driven research, teaching and learning	Need for "IT fluency," esp. metadata specialists; increasing involvement in digital library research, development, and production projects

Tables 1 and 2 adapted from: Calhoun, Karen. 2007. "Being a librarian: metadata and metadata specialists in the twenty-first century". *Library Hi Tech.* 25 (2): 174-187. Preprint available: http://hdl.handle.net/1813/2231

What Will It Mean “to Catalog”?

Many types of information objects (things, places, people, more)

Metadata production – manual and automated

Process redesign

Data mining

Metadata design, development, consulting

Metadata reuse/conversion/exchange; ‘mash-ups’

By Angela Ben de Cosanostra
http://flickr.com/photos/amcclen/281983490/

Step 3: Meeting the challenges

- Achieving efficiencies; freeing up expertise for other priorities
- Achieving quality results
- Making collections more visible and usable
- Optimizing the usefulness of the metadata we already have
- Realizing the dream of interoperable digital libraries

Achieving efficiencies: workflow redesign principles

1. Look at the *whole process* as *one process* (e.g., selection to ordering to receipt to cataloging to shelf-ready)
2. Maximize acquisitions/cataloging collaboration
3. Capture bibliographic data as far upstream as possible (at point of selection/ordering if you can)
4. To the greatest extent possible, handle items and records only *once*
5. Perform work where it makes the most sense; and maximize use of students/volunteers
6. Wholly manual processes do not scale; integrate automated and manual operations

Case study: Before and after workflow redesign for print monographs processing

Before redesign

- All cataloging done in cataloging
- Many exceptions
- Manual approach

Redesign and free up staff

- Automated approach
- Few exceptions
- 50% of cataloging done in acquisitions

Address priorities

- E-resource unit staffed
- Metadata unit staffed
- Special collections/digital projects staffed

Some useful OCLC tools:

WorldCat itself

WorldCat Selection

WorldCat Cataloging Partners

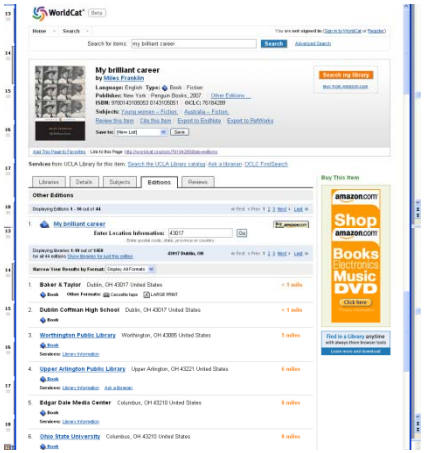
What is Technical Services “Quality”?

Must begin with user’s needs and end with user’s perceptions

What does ‘quality’ mean?

- Fast cycle time for new materials
- Providing for easy, convenient use of library collections
- Being creative, responsive and flexible
- Optimizing the library’s investment in personnel, materials, equipment, etc.
- Balancing trade-offs

Metadata Before and After the Web: What is a "Full" Record?



Bibliographic data
Library Holdings
Details
Subjects
Editions
Reviews

Product description & purchase information

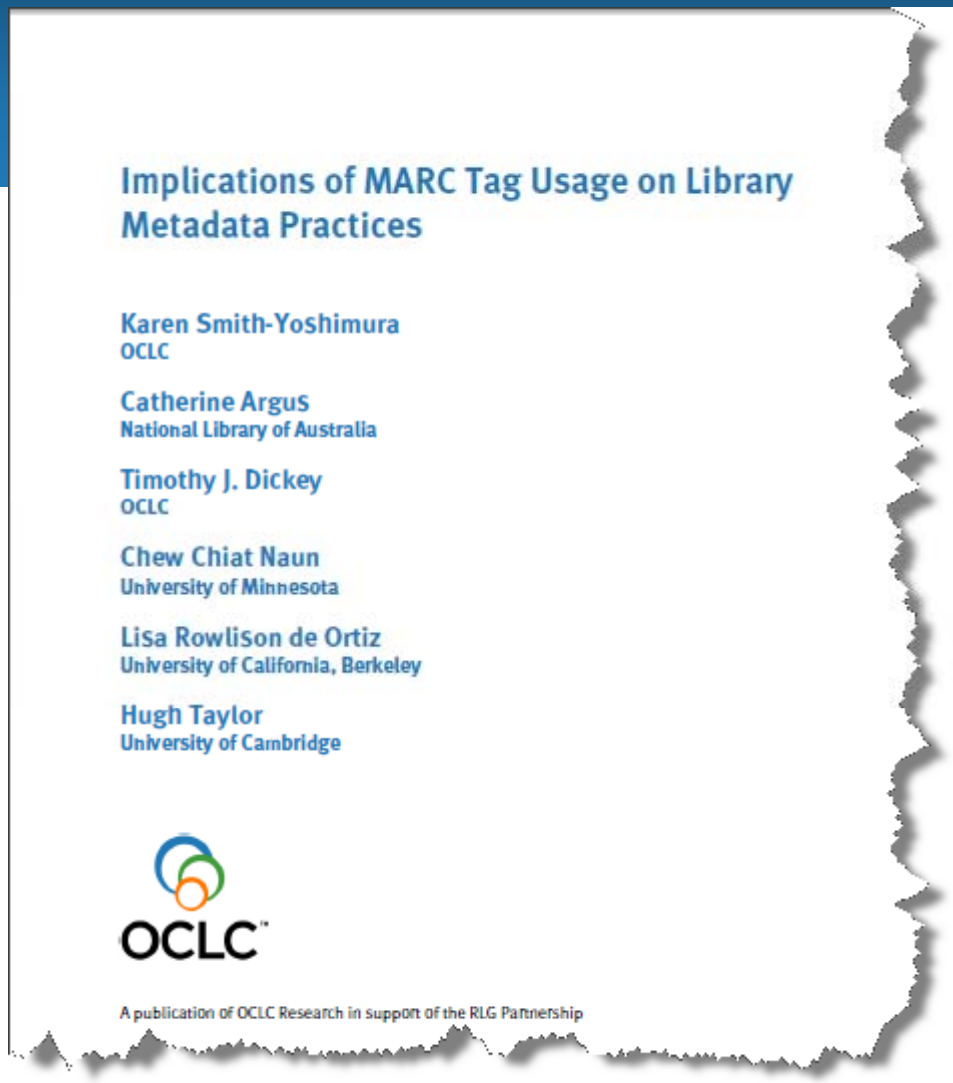
More like this

Editorial reviews & author info

Inside the book
Tags, Ratings
Customer reviews
Lists
More

+ 3 more screens

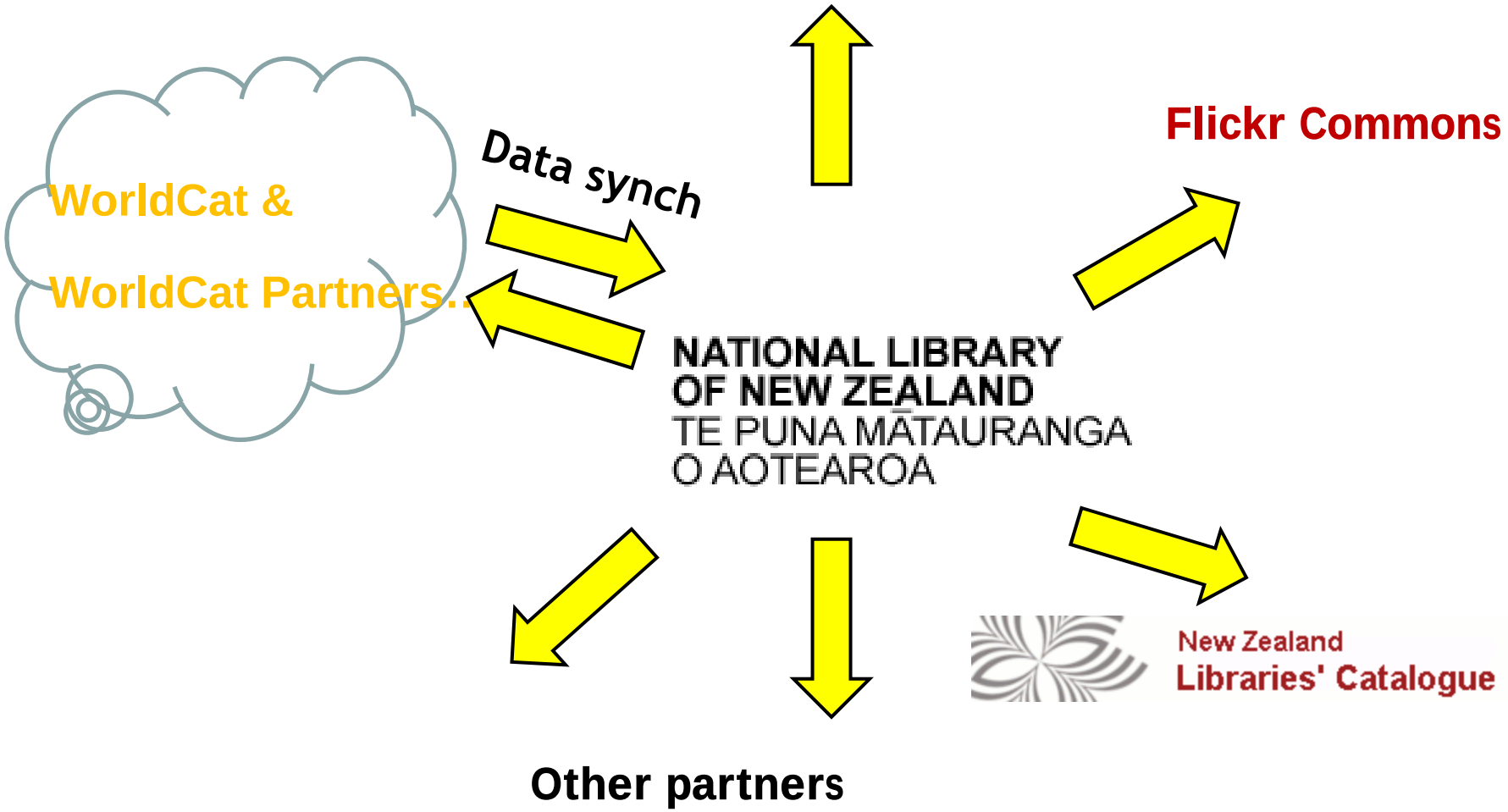
With thanks to David Lankes:
http://quartz.syr.edu/rdlankes/Presentations/2007/ALCTS.pdf



http://www.oclc.org/research/publications/library/2010/2010-06.pdf

"Rather than enhancing MARC and MARC-based systems, let's give priority to interoperability with other encoding schemas and systems. We need to meet the demands that have arisen from the rest of the information universe. "

Outward Integration: Data Synchronization and Syndication



Global Integration: Being Where Their Eyes Are: the Flickr Commons

flickr

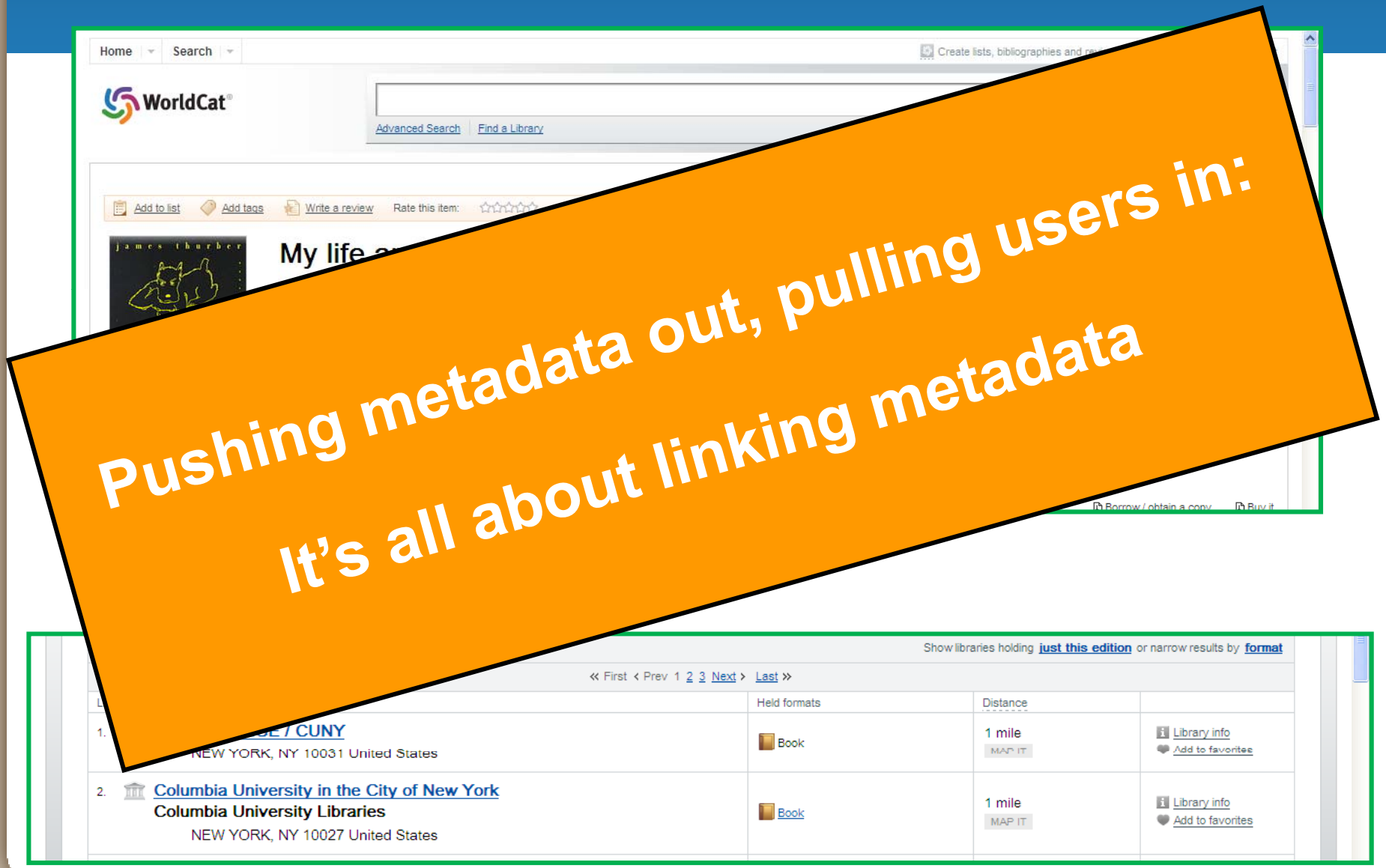
State Library of Queensland

http://www.flickr.com/photos/statelibraryqueensland/3197460723/

Making collections more visible: Find it on Google Books …

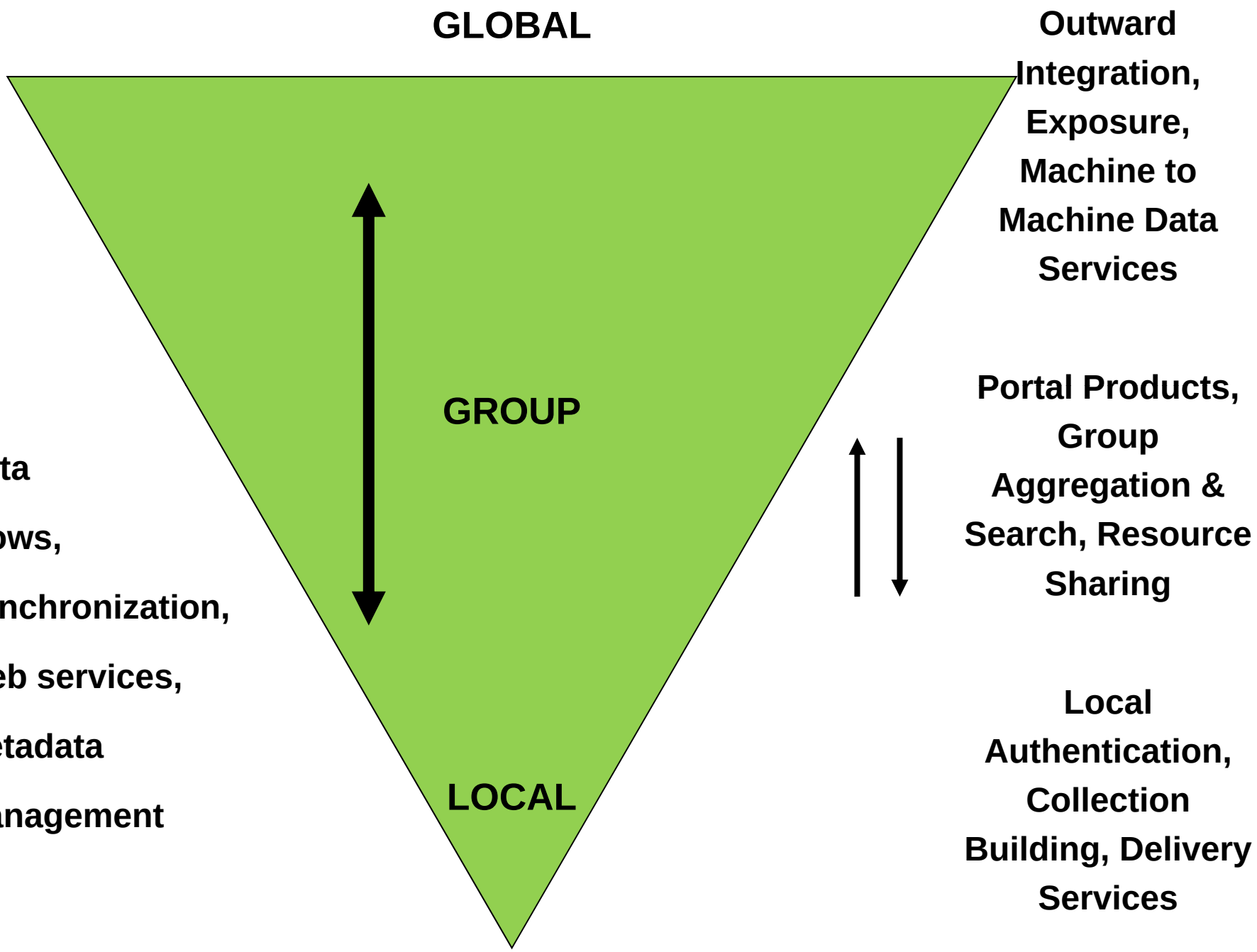
Find in a library

… Get It From My Library

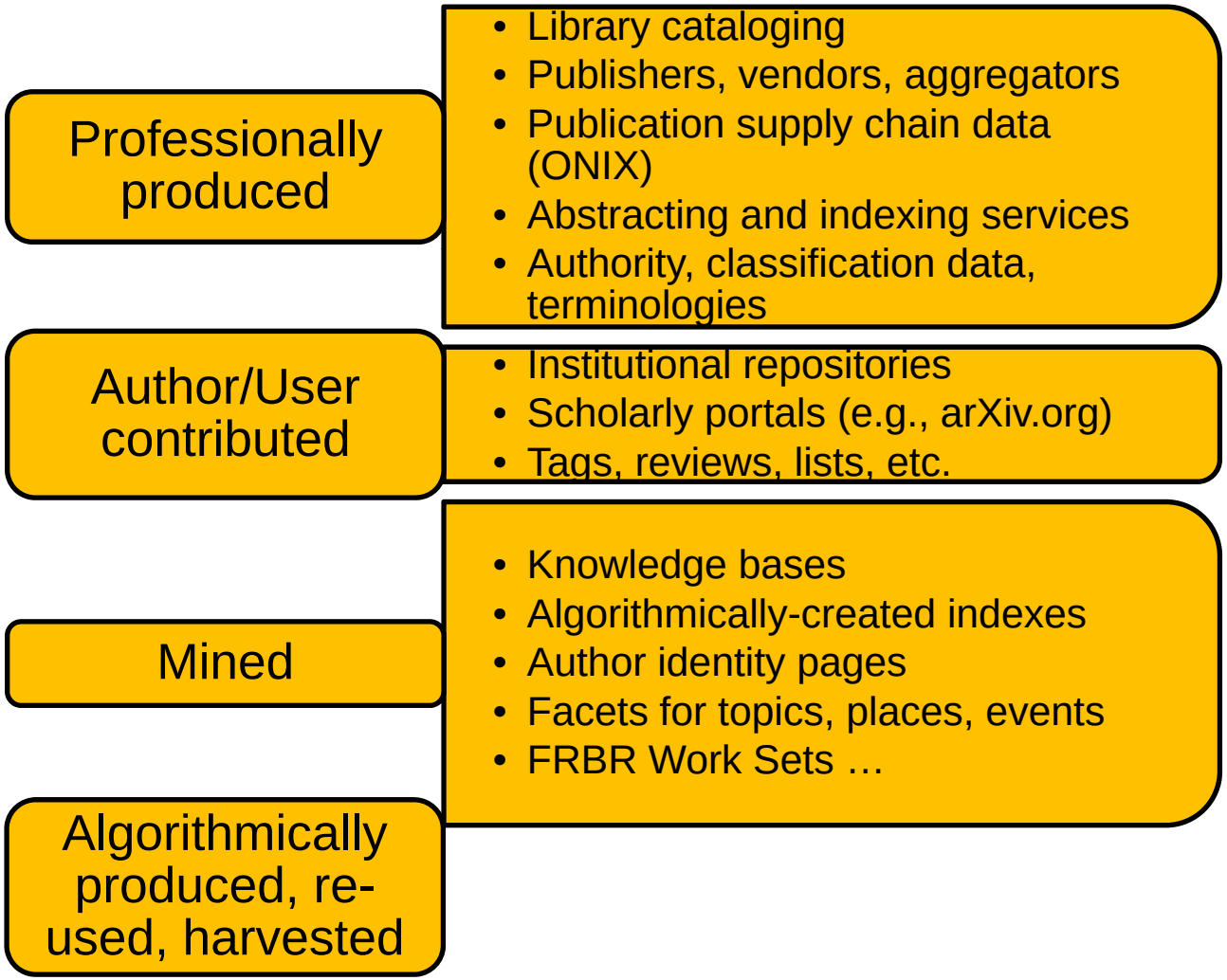


Pushing metadata out, pulling users in:

It's all about linking metadata


GLOBAL
Outward Integration, Exposure, Machine to Machine Data Services
GROUP
Portal Products, Group Aggregation & Search, Resource Sharing
Data Flows, Synchronization, Web services, Metadata Management
LOCAL
Local Authentication, Collection Building, Delivery Services

Where Metadata Comes From (and will come from)



Optimizing the metadata we already have: an example (James Thurber's Identity)

OCLC™

Home | Search

Create lists, bibliographies and reviews: Sign in or create a free account

WorldCat®

Search

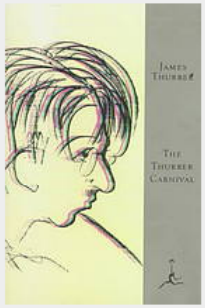
Advanced Search | Find a Library

Jump To: Overview | Publication Timeline | Works About | Works By | Audience Level | Related Names | Useful Links | Fast Headings

Thurber, James 1894-1961

Overview

Works:	629 works in 1,430 publications in 31 languages and 84,813 library holdings
Genres:	Humorous fiction Fantasy fiction Humorous stories, American American wit and humor Comedies Humorous stories Photographs Manuscripts, American
Subject Headings:	Humorists, American--20th century Cartoonists--United States Authors, American--20th century
Roles:	Illustrator, Other
Classifications:	ps3539.h94, 817.5

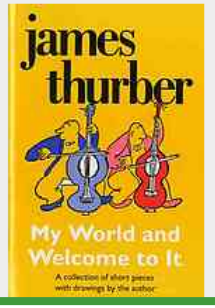


Alternative Names

ת'רבר, ג'ימס 1894-1961

ת'רבר, ג'ימס

American essays American literature **American wit and humor** American wit and humor, Pictorial Authors, American Bibliography **Biography** Caricatures and cartoons Caricatures and cartoons **Cartoonists** City and town life Clothing and dress Comedy Comedy films **Comic, The** Crime **Criticism, interpretation, etc.** Detective and mystery stories, American Dogs Drama **Fables,** American **Fairy tales** Fantasy Fashion Feature films **Fiction** Giants



VIAF (Virtual International Authority File): Facilitating research across languages

OCLC™

VIAF Beta
Virtual International Authority File

Search

Select Field: All Names | Select Index: All VIAF | Search Terms: e b white | Search

Selected Covers

White, E. B. (Elwyn Brooks), 1899-1985
White, Elwyn Brooks, 1899-1985
White, Elwyn B. 1899-1985
White, E. B. 1899-1985
WhiteElwyn Brooks() 1899-1985 NII
White, E. B. (Elwyn Brooks), 1899-
VIAF ID:66475004

Preferred Forms

100 ‡a White, E. B. ‡q (Elwyn Brooks), ‡d 1899-1985
100 ‡a White, Elwyn Brooks, ‡d 1899-1985
100 ‡a White, E. B. ‡q (Elwyn Brooks), ‡d 1899-
200 ‡a White ‡b Elwyn Brooks ‡f 1899-1985
100 ‡a White, E. B. ‡d 1899-1985
100 ‡a White, E. B. ‡q (Elwyn Brooks), ‡d 1899-1985
100 ‡a White, E. B. ‡q (Elwyn Brooks), ‡d 1899-1985
NII 100 ‡a WhiteElwyn Brooks() ‡d 1899-1985
100 ‡a White, E. B. ‡q (Elwyn Brooks), ‡d 189
100 ‡a White, Elwyn B. ‡d 1899-1985

Biblioteca Nacional de España
BNE|XX1153259

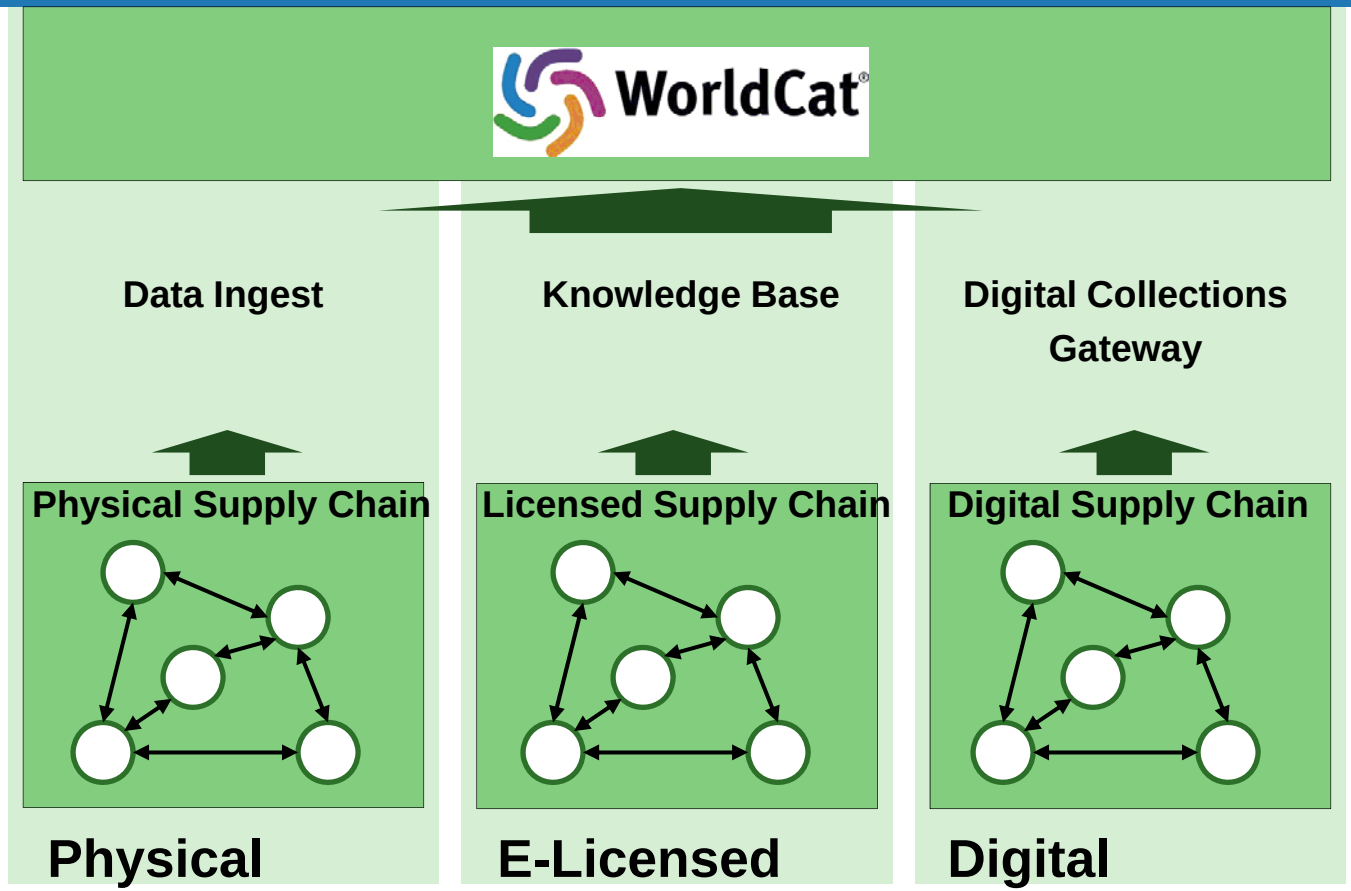
VIAF Participants

- National Library of Australia
- National Library of the Czech Republic
- Bibliotheca Alexandrina (Egypt)
- Bibliothèque nationale de France
- Deutsche Nationalbibliothek
- Getty Research Institute
- National Library of Israel
- Istituto Centrale per il Catalogo Unico (Italy)
- Biblioteca Nacional de Portugal
- Biblioteca Nacional de España
- National Library of Sweden
- Swiss National Library
- Library of Congress/NACO
- Vatican Library
- NUKAT Center (Poland)
- Library and Archives Canada
- NII (Japan)
- National Széchényi Library (Hungary)

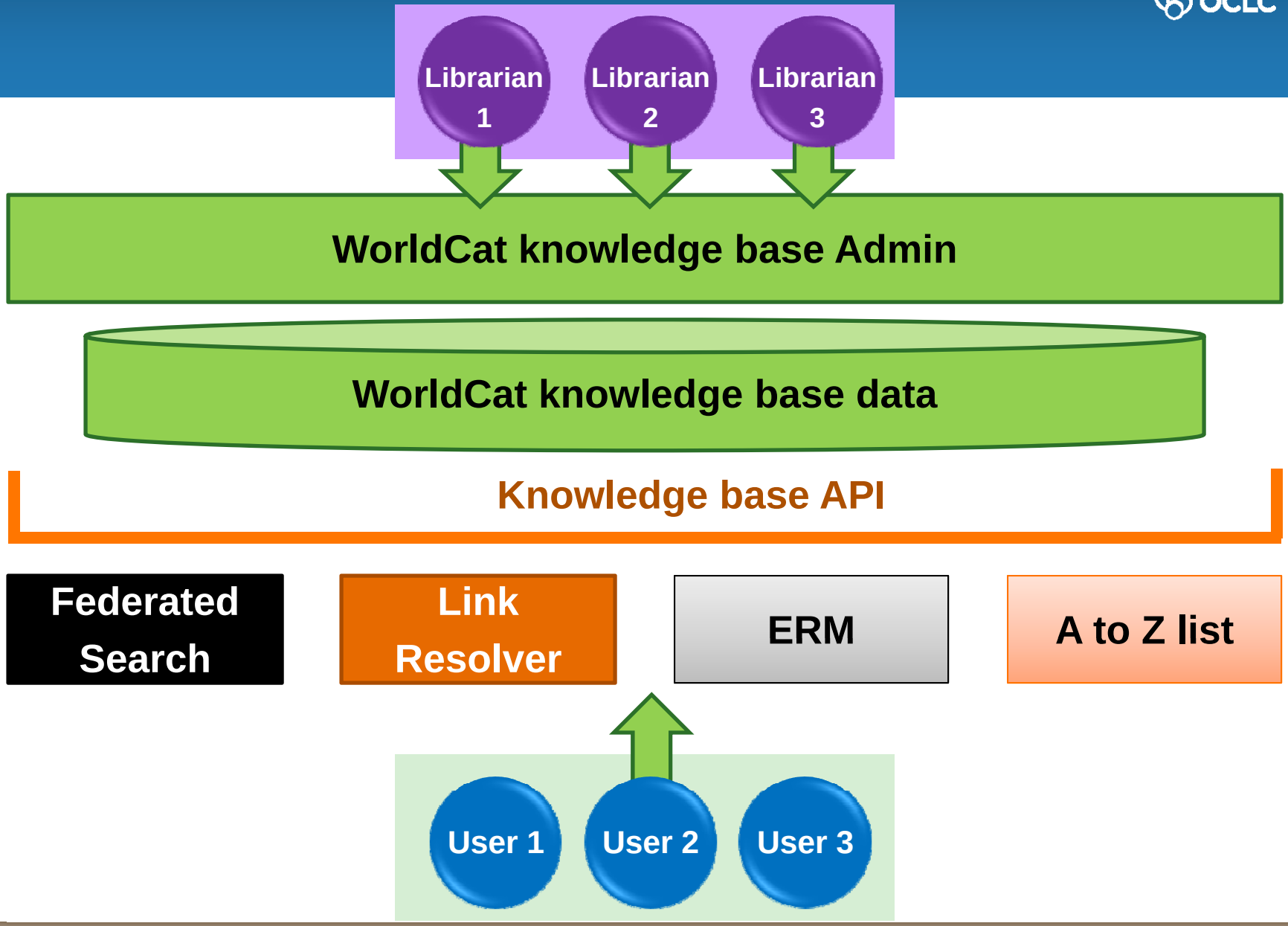
We also load files into VIAF for testing:

- RERO (Switzerland) -test

Extending WorldCat: Reflecting *all* the collections of interest to the communities that libraries serve



WorldCat knowledge base management



Digital library collections

Digitized text

- Books, newspapers, journals …

Digitized images

- Photos, drawings, posters …
- Sheet music
- Maps

Sound and moving images

- Recordings, oral histories
- Film

Born digital material

Scholarly preprints, data sets, dissertations

Archived Web sites

Worldwide Open Access Repositories

Source:

OpenDOAR

1,719 repositories worldwide

Of the top 50:

US – 16

Germany – 8

France – 7

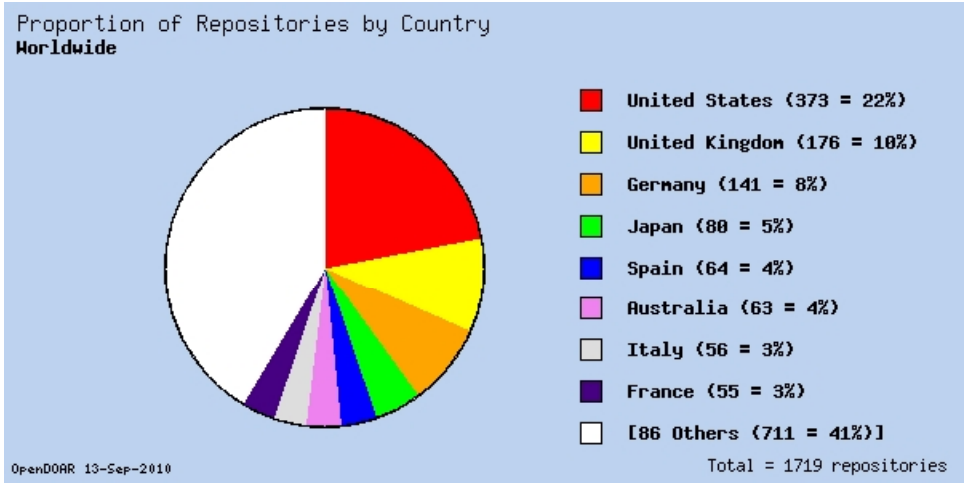
Switzerland – 4

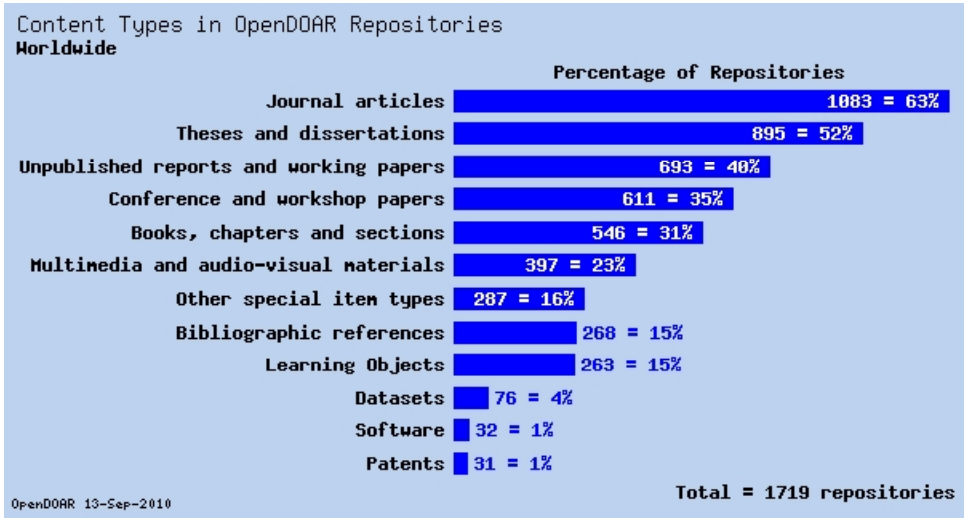
UK – 3

Netherlands – 2

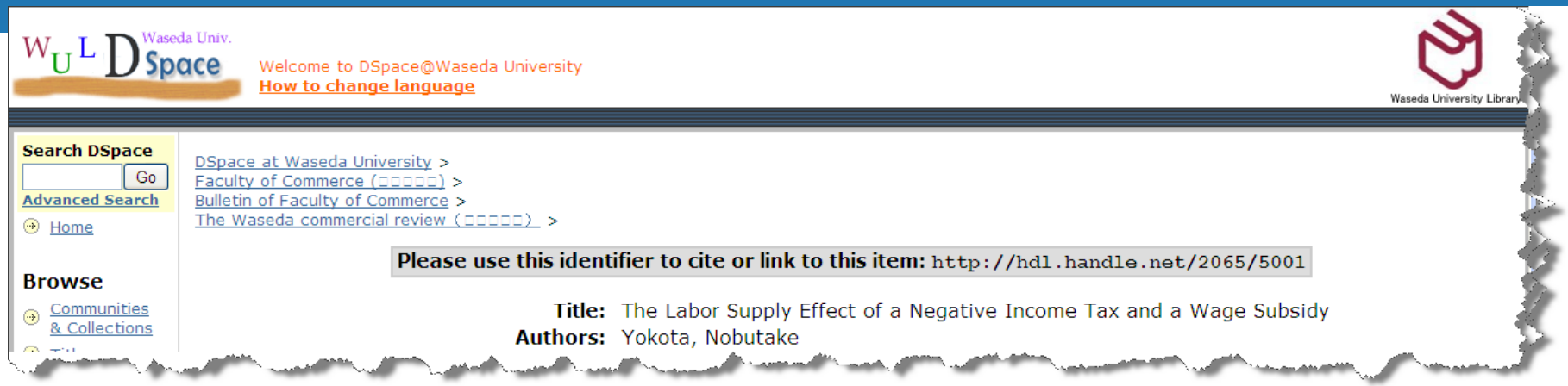
Australia – 2

(Source: Cybermetrics Lab)

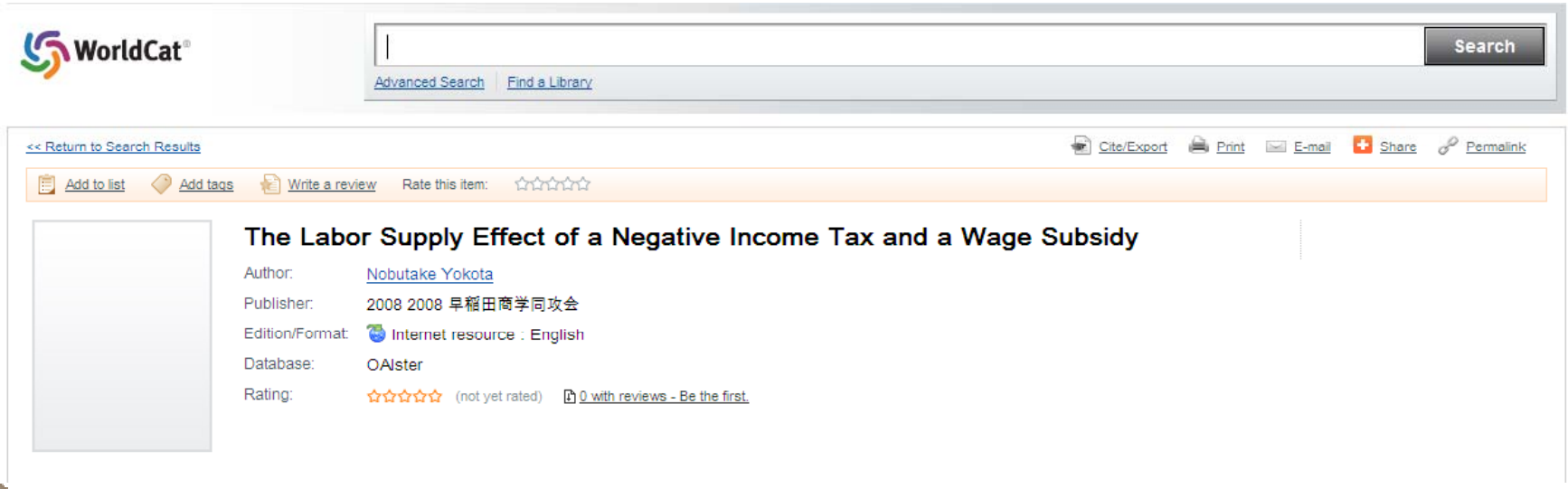




Japanese Institutional Repository Metadata in WorldCat: OAIster



OAIster harvesting



OAIster and OCLC WorldCat

- Aggregation (union catalog) of harvested open access collections
- OAI-OMH
- 25 million records, 1100 contributing institutions
- Began at University of Michigan; now managed by OCLC
- Going to self-service contribution model (Digital Collections Gateway)

OCLC's Digital Collections Gateway

Self-service tool for uploading to WorldCat

Freely available to members and non-members of OCLC

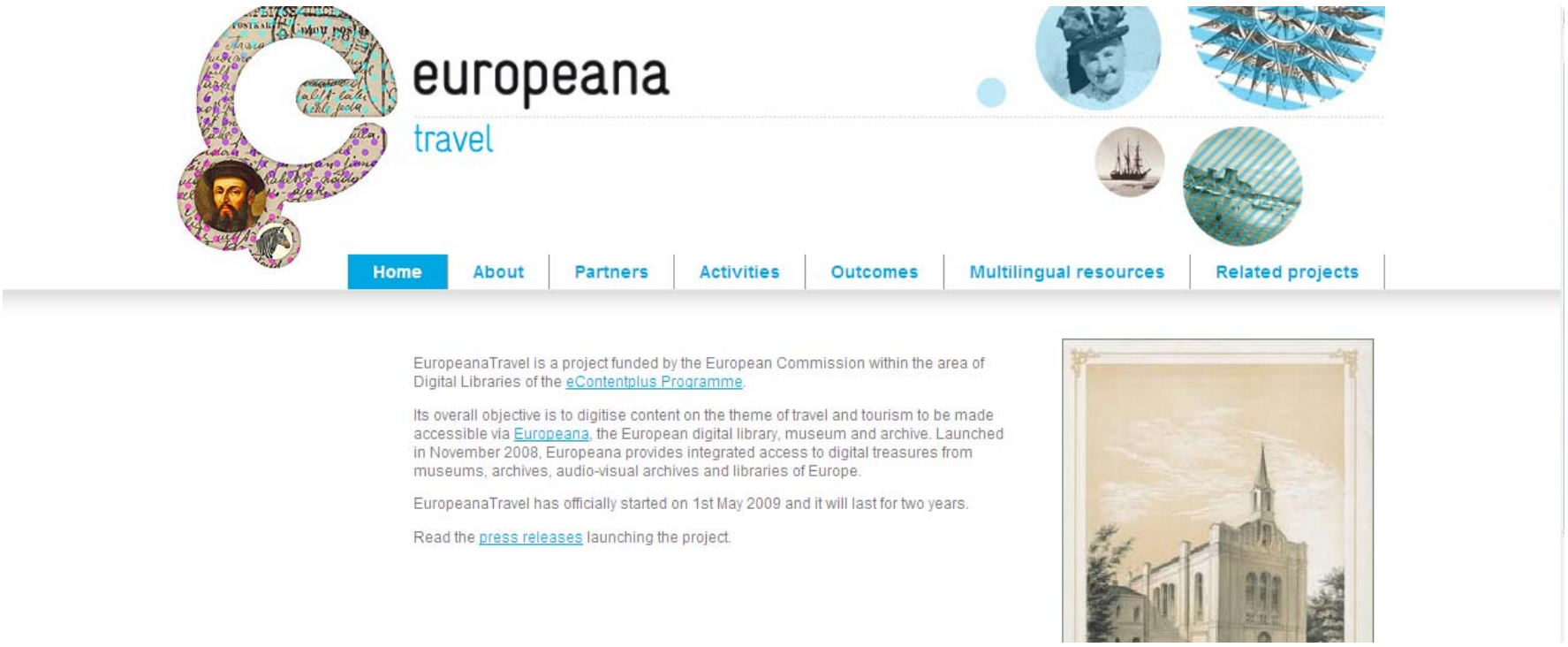
Makes digital content more visible

Compatible with all OAI-compliant repositories

More information:

http://www.oclc.org/gateway/about/default.htm

Europeana Travel: Pilot Project Using Digital Collections Gateway



Library metadata has reached a point of discontinuous change

We must change how we think about it and what we do

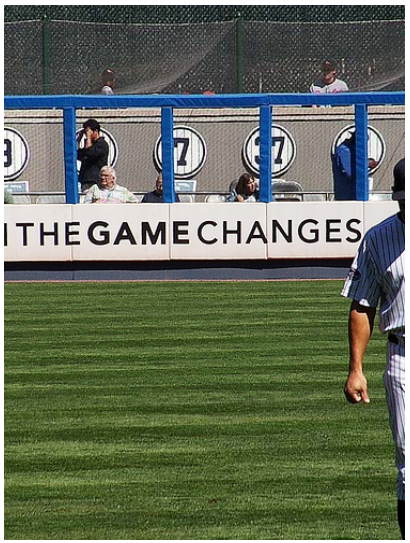


Photo by: OMG Ventures
http://www.flickr.com/photos/imagebuilders/2877401212/

Advice for Game Changers

1. **Cooperate (don't go it alone)**
2. **Use a blend of metadata techniques to:**
   - **Create many paths to your collections (print, licensed, digital)**
     Synchronize
     Syndicate
   - **Call attention to a wide array of collections on behalf of your communities (not just your own holdings)**
3. **Think of traditional library metadata as one of many possible approaches**

The Force Is With You

I think the health of our civilization, the depth of our awareness about the underpinnings of our culture and our concern for the future can all be tested by how well we support our libraries. ~Carl Sagan, *Cosmos*

The library is a living organism. ~SR Ranganathan

Source: NASA
http://grin.hq.nasa.gov/IMAGES/SMALL/GPN-2000-000946.jpg