Building Web-scale libraries

Jay Jordan
President and CEO
OCLC
trends and events in the information industry

Our Space
Graphic: “FooBar” by eBoy, Berlin
The 200 most successful web sites
Demographics of Facebook 2008

Facebook Members By Age Group

Source: O'Reilly Research

- U.S.
- U.K.
- All Other Countries

Age Group | U.S. | U.K. | All Other Countries
--- | --- | --- | ---
65-Over | | | 
60-65 | | | 
55-59 | | | 
45-54 | | | 
35-44 | 17% | 9% | 7%
26-34 | 31% | 29% | 16%
18-25 | 46% | 46% | 
13-17 | 59% | | 
Millennials don’t use the library...they want quick and convenient information

“The library is a good source if you have several months.”

“I don’t step in the library anymore.”

“...first thing I do, is, I go to Google... I don’t go into the [library] system unless I have to because there's like 15 logins, you have to get into the research databases. Then it takes you out of that to [the local consortium]...”
trends and events in the information industry

Our space
The OCLC Cooperative

69,826 libraries in 112 countries
OUR

space

People
<table>
<thead>
<tr>
<th>Category</th>
<th>2008</th>
<th>1998</th>
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</thead>
<tbody>
<tr>
<td>participating libraries</td>
<td>69,828</td>
<td>30,000</td>
</tr>
<tr>
<td>participants outside U.S.</td>
<td>14,544</td>
<td>3,200</td>
</tr>
<tr>
<td>participant countries</td>
<td>112</td>
<td>64</td>
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<tr>
<td>WorldCat records</td>
<td>107 million</td>
<td>38 million</td>
</tr>
<tr>
<td>WorldCat holdings</td>
<td>1.3 billion</td>
<td>668 million</td>
</tr>
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</table>
Scottish libraries and OCLC

- 1984—University of Edinburgh joins OCLC
- 1990—OCLC links to U.K. ’s JANET telecommunications network
- 1992—CURL signs with OCLC as secondary source for cataloging
- 1994—Glasgow University uses FirstSearch
- 1995—University of Strathclyde inputs 32 millionth record in WorldCat
- 1997—University of Edinburgh and Glasgow University use Electronic Collections Online through CHEST
- 1997—Edinburgh University Data Library uses OCLC SiteSearch
- 1999—University of Strathclyde participates in CORC project
- 2001—CURL partners with OCLC in collection analysis pilot
- 2002—SCURL and OCLC sponsor IFLA pre-conference
- 2008—Edinburgh Festival of Libraries
- 2008—JISC conference--Birmingham
- 2009 JISC annual conference—Edinburgh
National Library of Scotland and OCLC

- Began adding records in 1987
- Program for Cooperative Cataloging (Library of Congress)
- RLG Partner
- The National Library of Scotland batchload project was completed in March 2009:
  - 3,938,992 records processed
  - 3,793,048 holdings set
  - 942,588 original records added
OCLC strategic directions
“Increasingly, libraries, like other organizations, need to focus on creating value for their users and reducing the effort they spend on routine and common tasks. The emerging concept of Web-scale is strongly aligned with OCLC’s historic mission of operating a computer network and infrastructure that creates economies of scale, enabling more and more libraries to reduce costs and share resources.”
OCLC: Building Web-scale for libraries

Create a compelling user environment

Create system-wide efficiencies in library management

Increase OCLC’s global relevance and position of trust

Make OCLC Web Services a valued part of library operations
Referrals from partner sites to Open WorldCat Landing page

Click-throughs from Open WorldCat to library services

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Referrals</td>
<td>134.5 million</td>
<td>129.4 million</td>
</tr>
<tr>
<td>Click-throughs</td>
<td>8.9 million</td>
<td>7.6 million</td>
</tr>
</tbody>
</table>

Enhancements:

- WorldCat Identities
- Google Books API
- lists
- tagging
- reviews
- ratings
- RSS
- list watching
- user to library affiliation
- weRead recommendations
- FaceBook apps
- search box widgets
Create a compelling user environment

WorldCat Mobile Pilot

WorldCat Mobile

- **Search for library materials**—Enter search terms such as keywords, author or title
- **Find a WorldCat library near you**—Enter your ZIP, postal code or location in the Libraries Locator
- **Call a library**—Highlight and click the phone number in a library listing to place a call
- **Map a route**—Find the fastest way to a WorldCat library using the mapping software already on your device

Type this URL into your phone's Web browser:

www.worldcat.org/m/

Available only in the United States and Canada

Now you can use your mobile phone to find materials in libraries near you—and help us test this new pilot service. Available to people in the United States and Canada, the six-month pilot lets you try out mobile search of WorldCat libraries and suggest improvements or additional features.

WorldCat has partnered with mobile-technology leader Boopsie and joined its growing array of search "channels" that let you quickly access popular Web applications including Google, Wikipedia and Facebook; look up retail locations such as Starbucks and FedEx; and check news, weather, traffic reports and much more!

When you download the Boopsie application to your phone, you get library search plus these additional channels, as well as its "smart prefix" feature that allows you to type only the first few letters of search keywords and view results instantly as you type.
Create a compelling user environment

WorldCat Local

Faceted browse

Evaluative content

FRBRized results

Citation formatting

Relevancy Ranking

Customized local view

Interoperates with local systems for circulation, resource sharing, resolution to full text

Search for an item in libraries near you:
Enter title, subject or person

WorldCat
OCLC announces strategy to move library management services to Web scale

Offers libraries ‘quick start’ to Web-scale services

Quick start version of WorldCat Local now included as part of WorldCat subscription
Quick Start at a glance

Users see:
- URL
- search box
- locally branded interface
- local resources listed first in search results

Libraries see:
- included in subscription to WorldCat database at no additional cost
- staff complete the unique configuration for their library
- turn it on!
Moving toward Web-scale, cooperative library management services

WorldCat Local “quick start” is the first step...

- New system architecture and workflows to support global transaction rates and collaboration
- Soon, pilots for Web-scale delivery and circulation, acquisition, license management and more
Benefits of Web-scale, cooperative library management services

- Increased visibility and accessibility of libraries’ collections for users
- Reduced duplication of effort from networked technical services and collection management
- Streamlined workflows
- Cooperative intelligence and improved service levels
Create a compelling user environment

**QuestionPoint Qwidget**

Chat widget

HTML snippet

Facebook, MySpace, etc.

- 1,900 libraries
- 1,500 libraries in 24/7 reference cooperative
- Global knowledge base: 18,000 records in 11 languages
- QuestionPoint blog
- 3 millionth question—November 2008
Create a compelling user environment

Enquiry service participants:

- Dundee City Council
- East Dunbartonshire Council
- Fife Council
- Renfrewshire Libraries
- Midlothian Council
- Aberdeen City Libraries
- West Lothian Council
- Edinburgh City
- East Renfrewshire Council
- Moray Council
- Stirling Council

CILIPS...SCONE...SLIC...SLAINTE
Make OCLC Web Services a valued part of library operations

WorldCat API
- 10-15 developers from cataloging institutions in North America and Europe
- Search of WorldCat and retrieval of holdings
- Developers build applications that will drive people back to library services

OCLC Web services
- xISBN, xISSN, xOCLCNUM
- WorldCat Identities
- Registries including institution, reviews, citations (lists), tagging
- Terminologies
- Metadata Crosswalk
Make OCLC Web Services a valued part of library operations

WorldCat Identities

Burns, Robert 1759-1796

Overview

Works: 4,167 works in 5,596 publications in 32 languages and 117,842 library holdings

Genres: English poetry. Birthday books. Manuscripts, English

Subject Headings: Poets, Scottish–18th century. Poetry, English–18th century. Poets–Scotland–18th century

Roles: Lyricist, Compiler, Performer, Tyr, Composer, Librettist, Illustrator, Editor, Other, Organizator

Classifications: p34.85.2, 821.8

Publication Timeline

Key
- Publications about Robert Burns
- Publications by Robert Burns
- Publications by Robert Burns, published posthumously.
Increase OCLC’s global relevance and position of trust

The OCLC Cooperative

69,826 libraries in 112 countries
Increase OCLC’s global relevance and position of trust

OCLC Research: Agenda

- supporting new modes of research, teaching and learning
- managing the collective collection
- renovating descriptive and organizing practices
- modeling new service infrastructures
- architecture and standards
- measurement and behaviors
Increase OCLC’s global relevance and position of trust

University of St. Andrews and OCLC Research

John MacColl

Exploring our collective future

OCLC Research advances exploration, innovation and community building for libraries, archives, and museums
**Increase OCLC’s global relevance and position of trust**

**RLG Partners around the world**

American Academy in Rome • American Antiquarian Society • American Museum of Natural History • American Philosophical Society • American University in Cairo • American University of Sharjah • Amon Carter Museum • Arizona State University • Art Institute of Chicago • Athenaeum of Philadelphia • Bard Graduate Center/Bard College • Biblioteca Nacional de España • Bibliothèque nationale de France • Binghamton University, State University of New York • Boston Public Library • Boston University Pappas Law Library • Brandeis University • Brigham Young University • British Library • Brooklyn Museum • John Carter Brown Library at Brown University • California Digital Library • California Historical Society • Canadian Centre for Architecture • Center for Jewish History • Chemical Heritage Foundation • Sterling and Francine Clark Art Institute • Cleveland Museum of Art • Columbia University • Cornell University • Courtauld Institute of Art • Duke University • Emory University • Fashion Institute of Technology • Florida State University • Folger Shakespeare Library • Fordham University Leo T. Kissam Memorial Law Library • The Frick Collection and Frick Art Reference Library • George Washington University Jacob Burns Law Library • Getty Research Institute • Solomon R. Guggenheim Museum • Hagley Museum and Library • Linda Hall Library of Science, Engineering & Technology • Hebrew Union College - Jewish Institute of Religion • Huntington Library, Art Collections, and Botanical Gardens • Imperial College of Science, Technology, and Medicine • Indiana University Bloomington Institute for Advanced Study • International Institute of Social History (Netherlands) • Keio University • Kimbell Art Museum • Library Company of Philadelphia • Library of Congress • Library of Virginia • London School of Economics • Los Angeles County Law Library • Metropolitan Museum of Art • Minnesota Historical Society • Museum of the American West • Museum of Fine Arts, Boston • Museum of Fine Arts, Houston • Museum of Modern Art • National Archives and Records Administration • National Gallery of Art • National Gallery of Canada • National Library of Australia • National Library of New Zealand • National Library of Scotland • Natural History Museum (UK) • Nelson-Atkins Museum of Art • Newberry Library • The New School (university) • New York Academy of Medicine • New York Botanical Garden • New-York Historical Society • New York Public Library • New York State Office of Cultural Education • New York University • Oregon State University • Pennsylvania State University • Philadelphia Museum of Art • Princeton University • Rice University • Rockefeller Archive Center (Rockefeller University) • Royal Botanic Gardens, Kew • Rutgers University • School of Oriental and African Studies • Smithsonian Institution • Southern Methodist University • Underwood Law Library • Stanford University • Stony Brook University, State University of New York • St. Louis Art Museum • Swarthmore College • Swiss National Library • Syracuse University • Temple University • Trinity College Dublin • University of Aberdeen • University of Alabama • University of Arizona • University of British Columbia Asian Library • University of California, Berkeley • University of California, Davis, Law Library • University of California, Los Angeles • University of Cambridge • University of Chicago • University of Edinburgh • University of Florida • University of Glasgow • University of Iowa Law Library • University of Leeds • University of Liverpool • University of Manchester • University of Maryland • University of Melbourne • University of Miami • University of Michigan • University of Minnesota, Twin Cities • University of Oxford • University of Pennsylvania • University of Southern California • University of Sydney • University of Texas at Austin • University of Toronto • University of Warwick • University of Washington • Victoria and Albert Museum • Wellcome Library for the History and Understanding of Medicine • Yale University • Yeshiva University
Create system-wide efficiencies in library management

UnityUK

- National resource sharing network
- Merged catalogs of 178 public libraries
- 7.1 million records
- 38 million holdings
- Access to COPAC union catalog
Create system-wide efficiencies in library management

OCLC and Google exchange data, link digitized books to WorldCat

- Synchronizes WorldCat with digital collections of interest to the membership
- Participating organizations provide OCLC with a regular feed of metadata
- WorldCat is automatically updated with new MARC records as materials become available
- Reciprocal linking between WorldCat and the host site
- Automatic
End-Users expect online catalogs:

- to look like popular Web sites
- to have summaries, abstracts, tables of contents
- to help find needed information

Librarians expect online catalogs:

- to help them carry out work responsibilities
- to have accurate, structured data
- to exhibit classical principles of organization

http://www.oclc.org/reports/onlinecatalogs/default.htm
Create system-wide efficiencies in library management

WorldCat: Growing faster than ever!

137 million records
1.4 billion holdings

2 June 2009
**Create system-wide efficiencies in library management**

**Files loaded or pending for WorldCat**

<table>
<thead>
<tr>
<th>Library/Institution</th>
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<tbody>
<tr>
<td>ABES (France)</td>
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<tr>
<td>Bavarian State Library</td>
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<tr>
<td>Bibliothek Alexandrina (Egypt)</td>
</tr>
<tr>
<td>Bibliothekszentrum Baden Württemberg (Germany)</td>
</tr>
<tr>
<td>British Library</td>
</tr>
<tr>
<td>DanBib (Denmark)</td>
</tr>
<tr>
<td>GBV (Germany)</td>
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<td>HeBIS (Germany)</td>
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<td>IZUM (Slovenia)</td>
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<tr>
<td>Lebanese American University</td>
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<tr>
<td>LIBRIS (Sweden)</td>
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<tr>
<td>MALMAD (Israel)</td>
</tr>
<tr>
<td>Qatar University</td>
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<td>UnityUK</td>
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<tr>
<td>Zayed University Consortium (UAE)</td>
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Create system-wide efficiencies in library management
National files loaded or pending for WorldCat

<table>
<thead>
<tr>
<th>Bibliothèque nationale de France</th>
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<tbody>
<tr>
<td>German National Library</td>
<td>National Library of New Zealand</td>
</tr>
<tr>
<td>Libraries Australia</td>
<td>National Library of Scotland</td>
</tr>
<tr>
<td>National Central Library, Taiwan</td>
<td>National Library of Spain</td>
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<tr>
<td>National Diet Library of Japan</td>
<td>National Library of Sweden</td>
</tr>
<tr>
<td>National Library of China</td>
<td>National Library of Wales</td>
</tr>
<tr>
<td>National Library of Finland</td>
<td>Swiss National Library</td>
</tr>
<tr>
<td>National Library of Israel</td>
<td></td>
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</table>
Scotland in WorldCat: A bheil Gàidhlig agaibh?

Materials published in Scotland:
629,434

Materials in:
- Scottish Gaelic: 6,439
- Scots: 2,281

Total Scottish holdings in WorldCat:
7,540,162

Original WorldCat records contributed by Scottish institutions:
1,379,217

Total holdings in WorldCat attached to Scottish-contributed records:
2,207,496

Statistics current as of April 2009

Note: Results based on holdings of Scottish institutions as they are represented and cataloged in WorldCat.
### Multilingual WorldCat

Create system-wide efficiencies in library management

<table>
<thead>
<tr>
<th>Language</th>
<th>Total Records</th>
<th>1998:</th>
<th>2008:</th>
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<tbody>
<tr>
<td>English</td>
<td>23.9 m</td>
<td>55.2 m</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>2.3 m</td>
<td>6.2 m</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>2.2 m</td>
<td>12.3 m</td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>1.6 m</td>
<td>3.6 m</td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
<td>0.8 m</td>
<td>2.5 m</td>
<td></td>
</tr>
<tr>
<td>Russian</td>
<td>0.8 m</td>
<td>1.8 m</td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>0.7 m</td>
<td>2.3 m</td>
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<tr>
<td>Italian</td>
<td>0.7 m</td>
<td>1.7 m</td>
<td></td>
</tr>
<tr>
<td>Latin</td>
<td>0.3 m</td>
<td>1.2 m</td>
<td></td>
</tr>
<tr>
<td>Portuguese</td>
<td>0.3 m</td>
<td>0.9 m</td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>0.2 m</td>
<td>2.7 m</td>
<td></td>
</tr>
<tr>
<td>Hebrew</td>
<td>0.2 m</td>
<td>0.7 m</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage of Non-English Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998: 36%</td>
</tr>
<tr>
<td>2008: 50 1/4%</td>
</tr>
</tbody>
</table>
Create a compelling user environment

Create system-wide efficiencies in library management

Make OCLC Web Services a valued part of library operations

Increase OCLC’s global relevance and position of trust
How do we connect?
How do we add value
“Academic libraries now hire an increasing number of individuals to fill professional librarian positions who do not have the master's degree in library science... Academic libraries are also creating a wide range of new professional assignments in such areas as systems, human resources, fundraising, publishing, instructional technology, facilities management, and other specialties that demand diverse educational backgrounds... There is also a new cohort of MLS librarians who have received their degrees through distance rather than residential programs... The implications of these trends for the academic library work force and for the condition of the academic library workplace need close study.”

James Neal
Vice President for Information Services
University Librarian
Columbia University
“...librarians will move out of the bibliographically infested back halls into the user infested front halls where it will be necessary to provide new principles, standards, work skills, and new job descriptions and titles.”

Frederick G. Kilgour (1992)
Going Forward: Make OUR space more inclusive

- Museums, archives, publishers, vendors as well as libraries
- Joint research
- Fellowships
- Internships
- Advocacy
Web-scale: imagine the possibilities!

Library catalogs

JSTOR

Google Book Search
Our Space

Tapadh leibh!