A Geographical Representation of WorldCat Resources:
A Decision-Making Tool for Acquisitions and Collection Management

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OCLC
Charleston Conference
November 10, 2006

Materials Represented in WorldCat

- WorldCat
  - More than 75 million bibliographic records
    - Publication information
      - Place
    - Subject information
    - Language of item
  - More than a billion holdings
  - More than 10,000 member libraries contributing

Origin of Materials Represented in WorldCat

Unknown
14%

Rest of World
40%

US
34%

Canada
3%

UK
9%
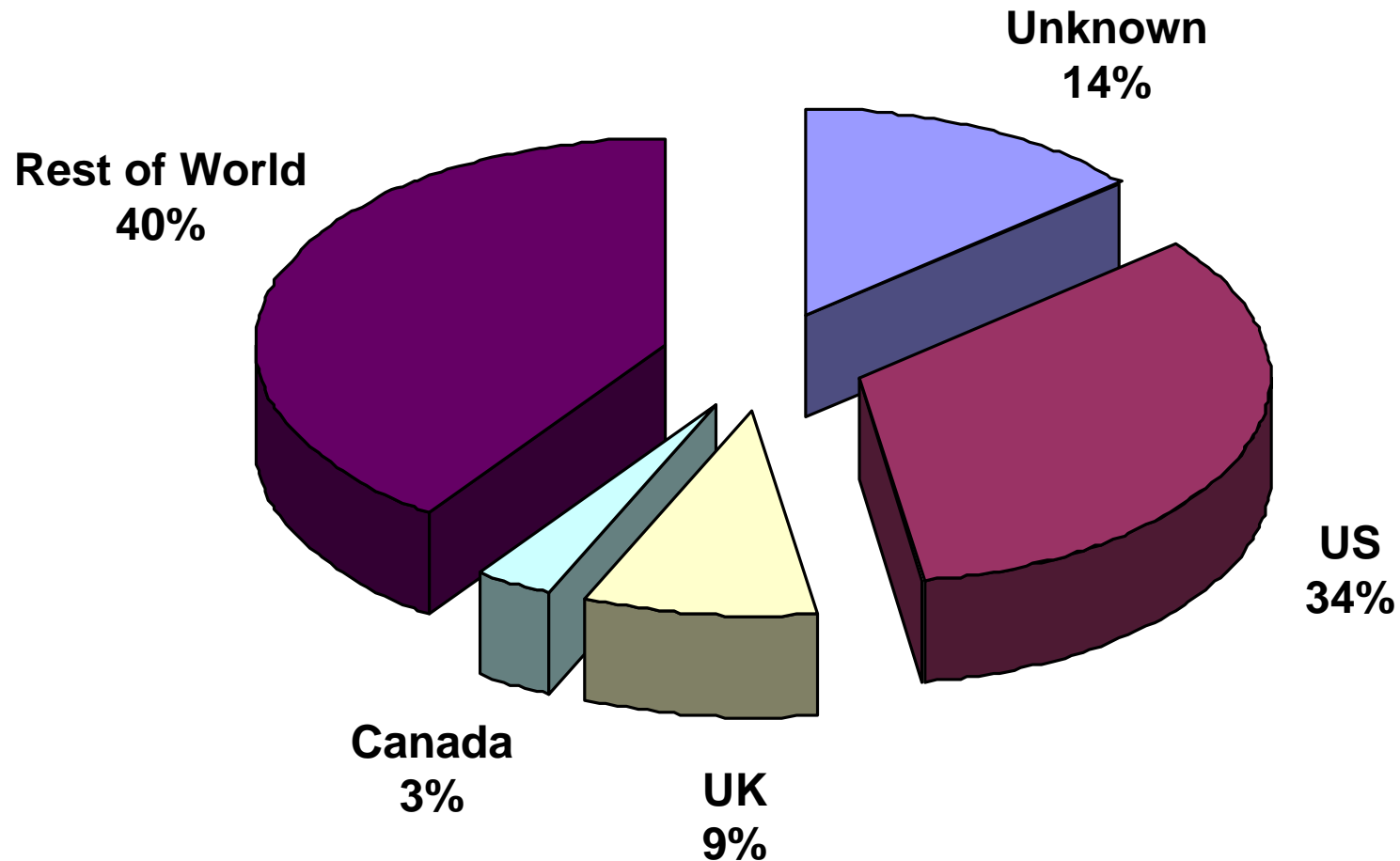
OCLC WorldMap™: Decision-making Resource

- Collection management
  - Cooperative collection development
  - Comparative collection analysis
  - Collection assessment
  - Mass digitization
  - Off-site storage
  - Preservation
- Comparative library data
  - Funding
  - Assess cultural differences
  - Provide benchmarks
  - Authoritative vetted reference resource

OCLC WorldMap™: Objectives

- Geographically represent library data from UNESCO, ARL, and NCES
  - Number of libraries
  - Amount of library expenditures
  - Number of volumes and titles
  - Number of librarians
  - Number of users

OCLC WorldMap™: Objectives

- Research prototype
  - Test geographical representation of WorldCat
    - Titles and holdings by country of publication
  - Support data mining research area
    - Visually display mined data to ease review and analysis
      - Internal use
        - Sales and marketing
      - External use
        - Library collection assessment and comparison
  - Complement the AAU/ARL Global Resources Network project
    - Project of the Council on Library and Information Resources (CLIR)

OCLC WorldMap™: Data Mining

- Decisions
  - Independent vs. dependent
  - Administrative units vs. service points
  - Inconsistent data categories
  - Unknown date for source data
- Challenges
  - Absence
  - Currency
  - Accuracy
    - Manual tabulation

OCLC WorldMap™: Technology

- First implemented SVG
  - Open standard maintained by W3C
  - Simple XML file
  - Young technology
  - Browser support limited
  - Requires plug-in
- Converted to Flash
  - Browser compatibility
  - Plug-in compatibility (*if* a plug-in was installed!)
- For a detailed comparison of SVG and Flash, see: http://www.carto.net/papers/svg/comparison_flash_svg/

Address | http://browning-j:8080/WorldMapTest/? | Go | Links

Press SPACEBAR or ENTER to activate and use this control

OCLC WorldMap

Compare Data | Show States/Provinces | Zoom To: World

OCLC WorldMap

Compare Data   Show States/Provinces   Zoom To: World ⌄

Asia
Australia
Europe
North America
South America

OCLC WorldMap

[Compare Data]   [Show States/Provinces]   Zoom To: [North America ⌄]

North America
WorldCat Holdings: 759,981,342
WorldCat Titles: 23,343,536

ARL Holdings: 583,867,549
ARL Titles: 9,126,291

Academic Libraries
Libraries: 5,373
Librarians: 29,760
Users: 9,536,821
Volumes: 1,021,838,836
Expenditures: $5,585,776,101

National Libraries
Libraries: 7
Librarians: 2,974
Users: 873,595
Volumes: 146,985,657
Expenditures: $880,787,767

Public Libraries
Libraries: 17,679
Librarians: 49,498
Users: 115,842,043
Volumes: 852,171,671
Expenditures: $7,905,113,776

School Libraries
Libraries: 107,381

OCLC WorldMap

OCLC

Compare Data | Show States/Provinces | Zoom To: North America ▾

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Libraries: 107,381

OCLC Online Computer Library Center

OCLC WorldMap

Compare Data   Show States/Provinces   Zoom To: North America

South Carolina
WorldCat Holdings: 1,109,066
WorldCat Titles: 104,555

ARL Holdings: 284,822
ARL Titles: 55,221

Academic Libraries
Libraries: 61
(*Source #33*)
Librarians: 368
(*Source #33*)
Users: N/A
Volumes: 10,466,710
(*Source #33*)
Expenditures: $60,311,451
(*Source #33*)

National Libraries
Libraries: 0
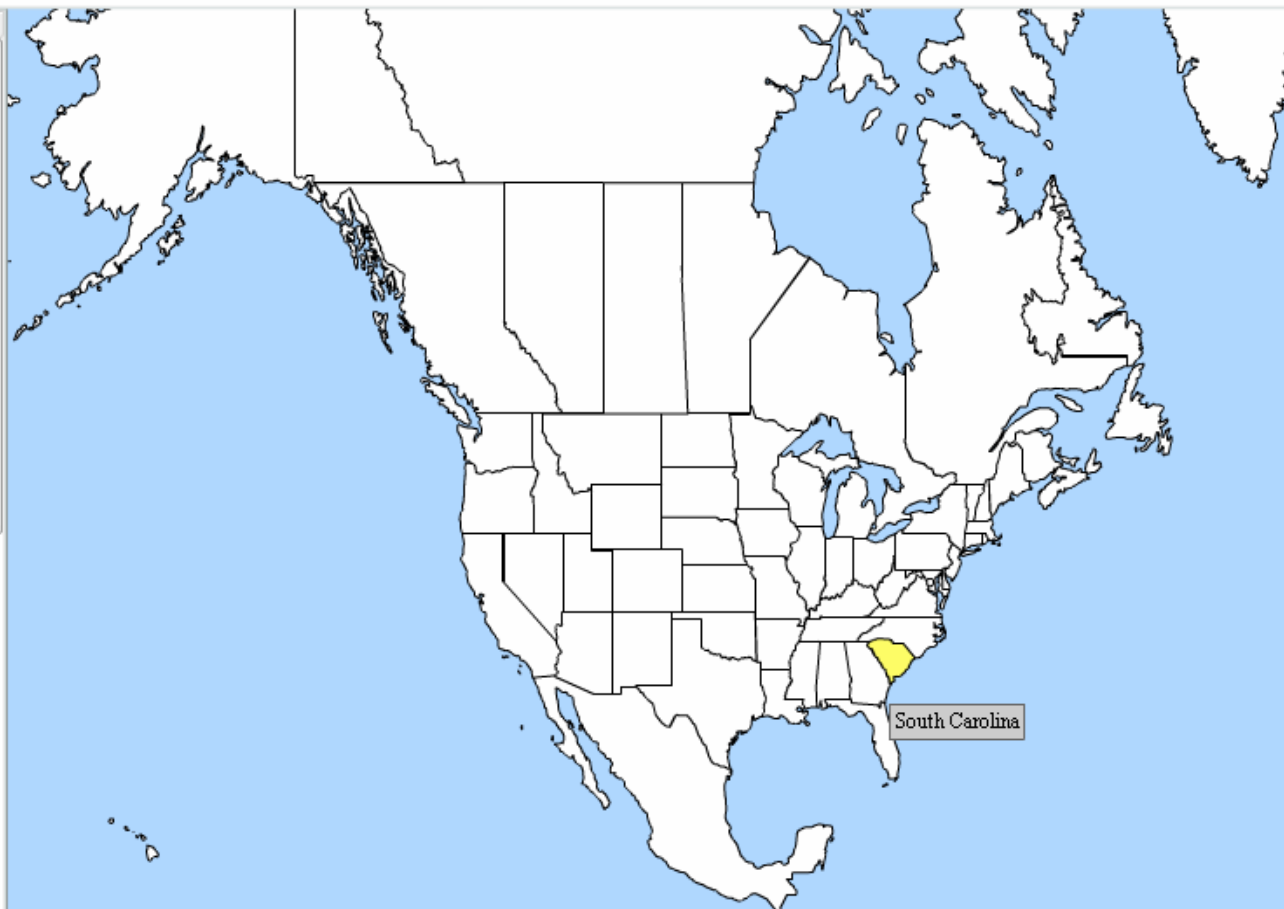Librarians: N/A
Users: N/A
Volumes: N/A
Expenditures: N/A

Public Libraries
Libraries: 42
(*Source #34*)
Librarians: 505
(*Source #34*)

South Carolina

Address http://browning-j:8080/WorldMapTest/? Go Links

OCLC WorldMap

OCLC

South Carolina
WorldCat Holdin
WorldCat Titles:

ARL Holdings: 2
ARL Titles: 55,2

Academic Libra
Libraries: 61
(*Source #33*)
Librarians: 368
(*Source #33*)
Users: N/A
Volumes: 10,466
(*Source #33*)
Expenditures: $6
(*Source #33*)

National Librarie
Libraries: 0
Librarians: N/A
Users: N/A
Volumes: N/A
Expenditures: N

Public Libraries
Libraries: 42
(*Source #34*)
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(*Source #34*)

Data Sources - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back | Search   Favorites

Address http://browning-j:8080/WorldMapTest/sources.html#33 Go Links »

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     http://nces.ed.gov/pubs2004/2004317.pdf (accessed November 2, 2006).
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     http://nces.ed.gov/pubs2005/2005363.pdf (accessed November 2, 2006).
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40. European Commission, Institute of Public Finance. *Library Economics in Europe Millennium Report.* http://www.libecon.org/millenniumstudy/default.asp (accessed November 2, 2006).
41. *UNESCO Statistical Yearbook 1995.* Paris: UNESCO, 1995.
42. Wedgeworth, Robert, ed. *ALA World Encyclopedia of Library and Information Services.* 2nd ed. Chciago: American Library Association, 1986.

Done   Local intranet

You cannot save data typed into this form.
Please print your completed form if you would like a copy for your records.

NCES
National Center for Education Statistics

Library Statistics Program

U.S. Department of Education
Institute of Education Sciences
NCES 2004–317

Academic Libraries: 2000

E.D. Tabs

OCLC Online Computer Library Center

OCLC WorldMap

Compare Data | Show States/Provinces | Zoom To: North America

Ohio
WorldCat Holdings: 6,960,915
WorldCat Titles: 522,691

ARL Holdings: 1,509,299
ARL Titles: 254,951

Academic Libraries
Libraries: 143
(*Source #33*)
Librarians: 812
(*Source #33*)
Users: N/A
Volumes: 38,219,718
(*Source #33*)
Expenditures: $174,004,560
(*Source #33*)

National Libraries
Libraries: 0
Librarians: N/A
Users: N/A
Volumes: N/A
Expenditures: N/A

Public Libraries
Libraries: 250
(*Source #34*)
Librarians: 2,605
(*Source #34*)
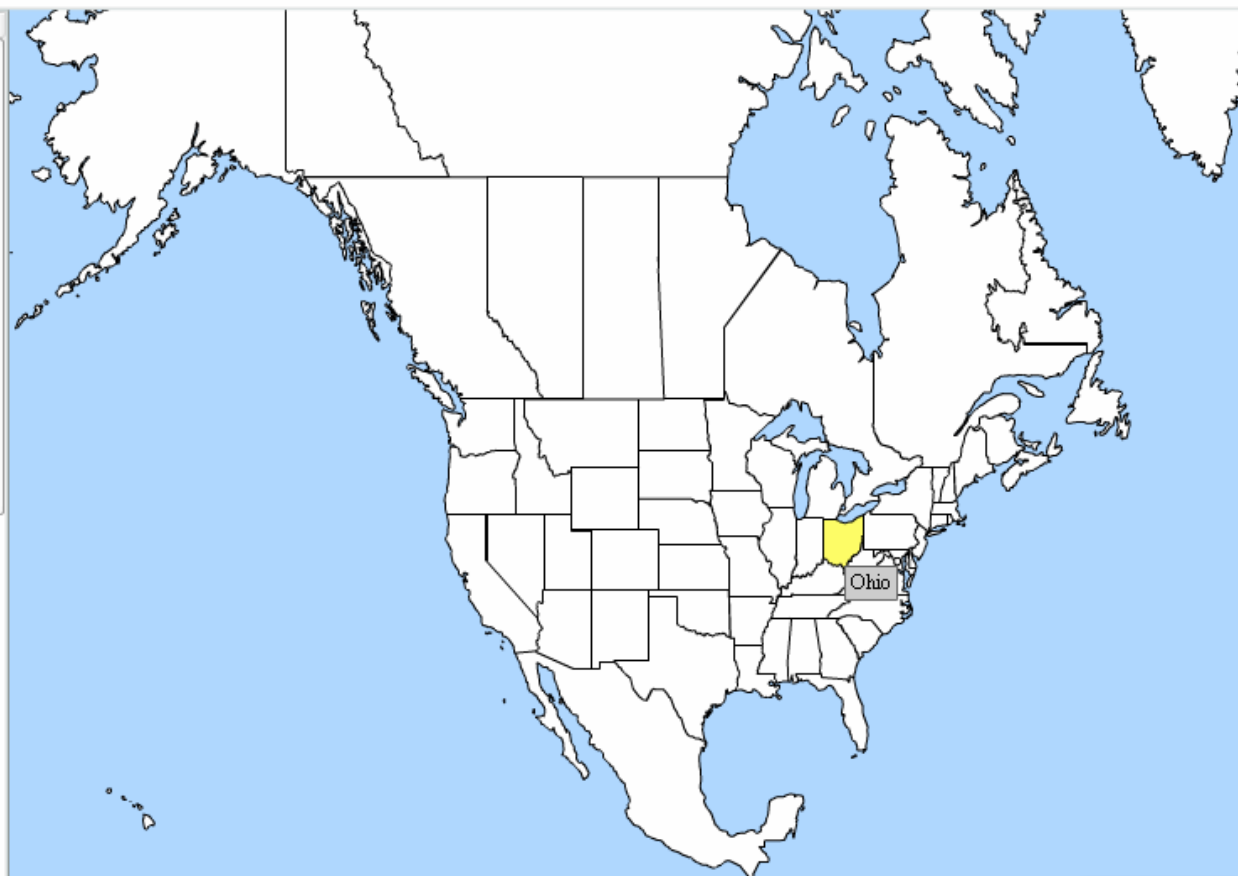
Ohio

OCLC WorldMap

Back to Map

Zoom To: World ▼

Add a continent, country, state, or province from the alphabetical list.

Afghanistan
Africa
Alabama
Alaska
Albania

Add ->

<- Remove

Clear All

Select a library type to generate a table comparing library data for the place/s added above.

Library Type: Academic ▼   Generate Table

Place	Expenditures	Librarians	Libraries	Users	Volumes

Address 🔲 http://browning-j:8080/WorldMapTest/? ⌄ → Go   Links

OCLC WorldMap

Back to Map   Zoom To: World ⌄

Add a continent, country, state, or province from the alphabetical list.

| Nova Scotia |
| Nunavut |
| Ohio |
| Oklahoma |
| Oman |

Add ->

<- Remove

Clear All

South Carolina

Select a library type to generate a table comparing library data for the place/s added above.

Library Type: Academic ⌄   Generate Table

Place	Expenditures	Librarians	Libraries	Users	Volumes

OCLC WorldMap

Back to Map	Zoom To: World ▾

Add a continent, country, state, or province from the alphabetical list.

Nova Scotia ▲		South Carolina
Nunavut	Add ->	Ohio
Ohio	<- Remove	
Oklahoma	Clear All	
Oman ▼		

Select a library type to generate a table comparing library data for the place/s added above.

Library Type: Academic ▾   Generate Table

Place	Expenditures	Librarians	Libraries	Users	Volumes

OCLC WorldMap

Back to Map   Zoom To: World ▼

Add a continent, country, state, or province from the alphabetical list.

Nova Scotia	
Nunavut	
Ohio	
Oklahoma	
Oman	

Add ->

<- Remove

Clear All

| South Carolina |
| Ohio |

Select a library type to generate a table comparing library data for the place/s added above.

Library Type: Academic ▼   Generate Table

Place	Expenditures	Librarians	Libraries	Users	Volumes
South Carolina	$60,311,451	368	61	N/A	10,466,710
Ohio	$174,004,560	812	143	N/A	38,219,718

Address http://browning-j:8080/WorldMapTest/? ▼ → Go Links

OCLC WorldMap

OC
LC

Compare Data   Show States/Provinces   Zoom To: North America ▼

| World |
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| Europe |

South Carolina
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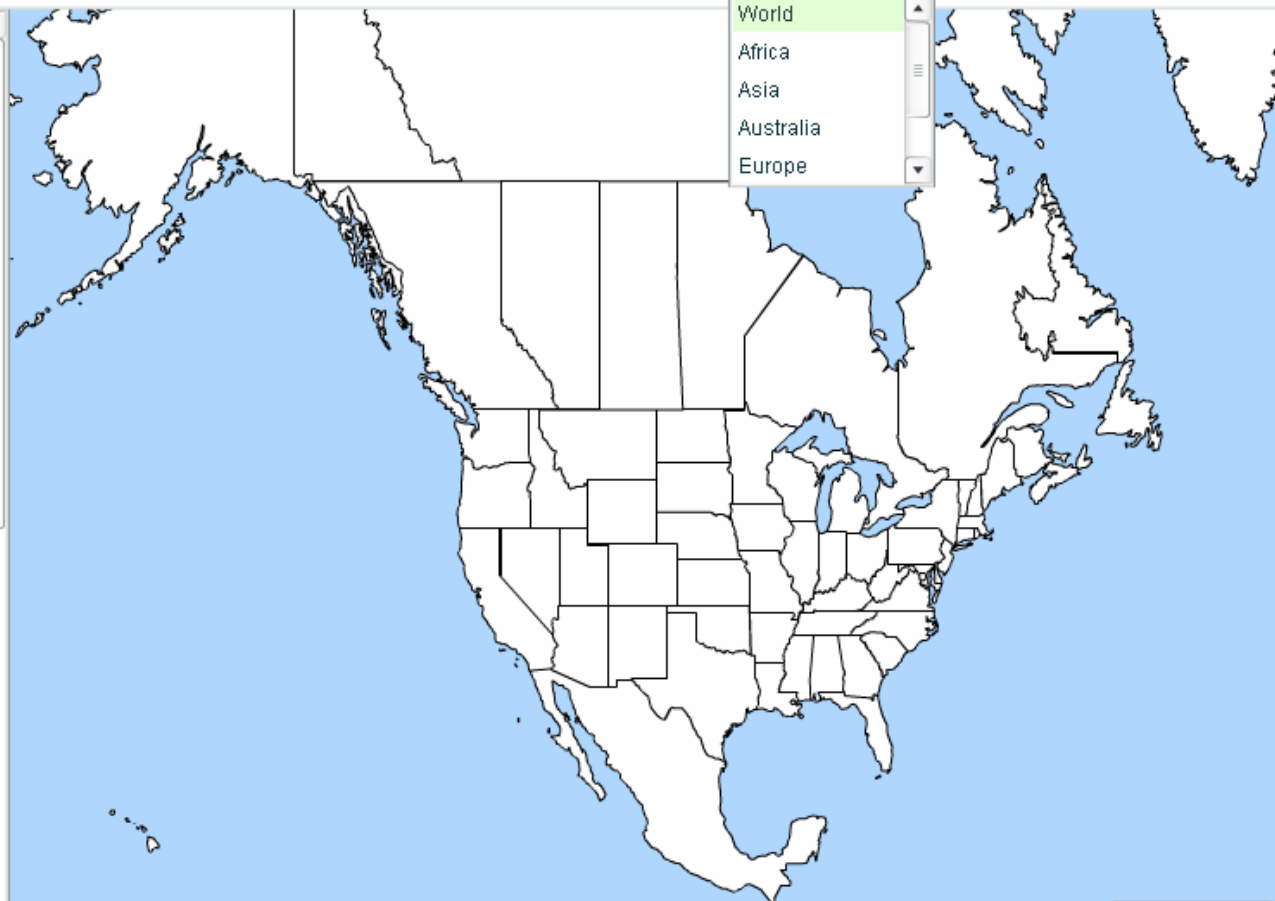Librarians: N/A
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OCLC WorldMap

| Back to Map | Zoom To: World ▼ |

Add a continent, country, state, or province from the alphabetical list.

Gambia	Add ->	United States of America
Georgia		Germany
Georgia (Republic)	<- Remove	
Germany		
Ghana	Clear All	

Select a library type to generate a table comparing library data for the place/s added above.

Library Type: Academic ▼   Generate Table

Place	Expenditures	Librarians	Libraries	Users	Volumes
United States of America	$5,025,943,128	25,152	3,527	7,641,610	913,546,999
Germany	$435,321,900	3,687	295	2,036,028	143,911,373

Some aspects of "Global WorldCat" ...

Content Languages: 476

43% of WC non-English

Top 5 non-English:

German: 4.5 million

French: 4.2 million

Spanish: 2.9 million

Dutch: 2.1 million

Chinese: 1.6 million

Materials w/non-US origins:

35.3 million (52%)

Top 5:

UK:	6.1 million
Germany:	4.0 million
France:	2.9 million
Netherlands:	2.2 million
Canada:	2.1 million

Non-English Metadata Language:

9.3 million (20 languages)

Top 5:

Dutch:	4.1 million	Japanese:	0.7 million
French:	1.4 million	Finnish:	0.7 million
German:	1.0 million		

Possible Future Enhancements

- Subject information "aboutness"
- Language of item
  - Content language
  - Metadata language
- Holdings by country of library
- Other?

Presentation will be available at
http://www.oclc.org/research/presentations/default.htm

Prototypes available at
http://www.oclc.org/research/researchworks/default.htm

Questions and Discussion

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