## **OCLC** Research in brief

#### Rosanna Ramacciotti

Territory Development Director







1971 OCLC WorldCat launched

1978 OCLC Research Group created





## QUESTION: WHAT DOES OCLC RESEARCH DO?



### **Objective**

**Explore** and **address** challenges facing libraries and archives in a rapidly changing information technology environment.



## Main areas of research:

#### Research Collections and Support



Libraries are increasingly leveraging the raw materials of scholarship and knowledge formation by emphasizing the creation and curation of institutional research assets and outputs, including digitized special collections, research data, and researcher profiles. Our work informs current thinking about research collections and the emerging services that libraries are offering to support contemporary modes of scholarship. We are encouraging the development of new ways for libraries to build and provide these types of collections and deliver distinctive services.

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#### Understanding the System-wide Library



Our research agenda aims to improve our understanding of the factors that guide institutions in their sourcing and scaling choices as they seek maximum impact and efficient provision of library collections and services.

Libraries are embedded in an increasingly complex network of information supply and demand. Our goal is to provide evidence and insight to libraries as they organize collections and services within this changing network environment.

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#### Data Science



The Web is the native environment of information seekers. OCLC Research recognizes that to be integrated into the Web, traditional library data must be transformed in various ways. We are analyzing the data in WorldCat and other sources to derive new meaning, insights, and services for use by libraries and others on the Web

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#### **User Studies**



Libraries are impacted by the ways in which individuals engage with technology; how they seek, access, contribute, and use information; and how and why they demonstrate these behaviors and do what they do. We're collaborating with librarians to shape their services around a set of expectations that have been influenced by consumer technologies and modern research and learning environments. By providing the library community with behavioral evidence about individuals' perceptions, habits, and requirements, we can ensure that the design of future library services is all about the user.

Learn More



### 1. Research collections & support

#### Research support

- Identifiers and library workflows that support research information management
  - Registering researchers in authority files
  - Scholar affiliation and organizational ids
  - Person Entity Lookup Pilot





### 2. Understanding the system-wide library

- Understanding the collective collection
  - Analyzing the aggregate of library print collections
    - Understanding the Collective Collection: Towards a Systemwide Perspective on Library Print Collections
    - Replicating this for other regions (UK, NL)

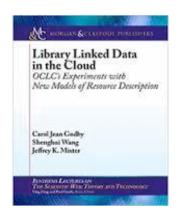


#### 3. Data Science

#### Linked Data

 Extracting entities from records and weaving library data into the web of data (<u>Linked Data research</u>)

The EntityJS Research Project







### **VIAF** (Virtual International Authority File)

 Library of Congress (LC), the Deutsche Nationalbibliothek (DNB), the Bibliothèque nationale de France (BNF) and OCLC

 International service (2012) designed to provide convenient access to the world's major name authority files



#### Size of VIAF

- 37 active NL participants/files
- 29 million VIAF clusters
- 53 million source authority records
  - 39 M personal
  - 6 M corporate/conference
  - 4 M geographic
  - 4 M title
- 54 million links
- 111 million bibliographic records



#### 4. User Studies

- The users libraries serve
  - <u>Digital Visitors and Residents: What Motivates</u>
    <u>Engagement with the Digital Information Environment?</u>

Replicating this for other regions (Spain, Italy?)





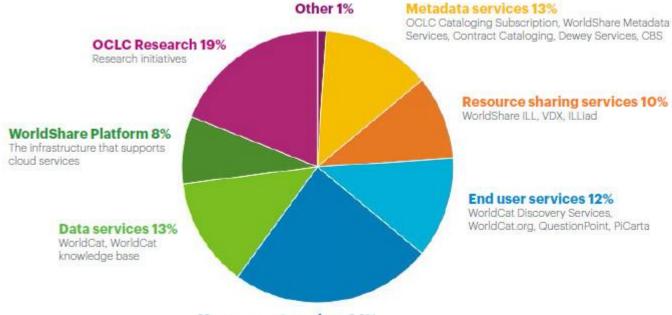
## OCLC Studies and Membership rep

- 84% use search engines to start a search
- 2% start their search on a library website
- 90% are satisfied of their search engines
- Libraries = books
- Readers on the Internet are becoming authors
- 25% of the general public and 50 % of students take part in social media



#### FY2015 research & development expenditures

Total \$36 million



#### Management services 24%

WorldShare Management Services, WorldShare License Manager, WorldShare Collection Evaluation, WorldShare Report Designer, CONTENTIM, EZproxy, SISIS-Sunrise, LBS, Amlib, BIBLIOTHECAplus, bicatWise, OLIB Web

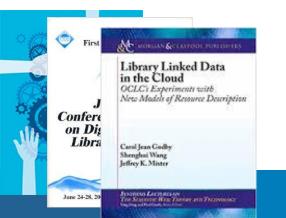


## QUESTION: HOW DOES OCLC DO RESEARCH?



### 1. Carry out R&D

- with university faculty in different disciplines
- we develop prototypes and demos
- we apply for grants
- we publish books and scientific papers







### **Examples of grants received in Europe**

JISC-funded study: with the University of Oxford and the University of North Carolina, Charlotte, to investigate the theory of **digital residents** and **visitors** with learners in the educational stages (2012)

NWO-grant for a joint research project with U. of Amsterdam and TU-Eindhoven: Visual Analytics for the World's Library Data (2015-2019)





## 2. Engage with the community around shared concerns

Through the OCLC <u>Membership</u> and the <u>Research</u> <u>Library Partnership</u>

- We convene partnership meetings
- We initiate ad-hoc expert groups
- We work on joint projects with the community
- We share the results (webinars, OCLC Research Reports)



## 3. Provide support and custom analysis to other OCLC divisions





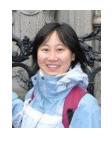


## QUESTION: WHO IS OCLC RESEARCH?



#### Meet the team in Leiden

Shenghui Wang scientific researcher (text mining; semantic web)



Rob Koopman innovation lab architect (similarity matching in large scale datasets)



Titia van der Werf senior program officer (digital preservation; EC-grants)



#### Meet the team behind the team in Leiden



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## Thank you. Any questions?

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