OCLC Research Update
Overview

Research Scientist *Ixchel Faniel* & Senior Program Officer *Rebecca Bryant*

*Library Services Development in an Emerging Collaborative Landscape*

Senior Research Scientist *Jean Godby*

*Library Resource Description after MARC: Lessons from OCLC's Experiments with Linked Data*

WebJunction Program Manager *Betha Gutsche*

*Scaling Supercharged Storytimes*
Overview

Lynn Silipigni Connaway, PhD
Senior Research Scientist and Director of User Research
OCLC Research
OCLC Research is committed to three roles

1. To act as a community resource for shared Research & Development (R&D),
2. To provide advanced development & technical support within OCLC itself,
3. To enhance OCLC's engagement with members & to mobilize the community around shared concerns.
Five Primary Areas of Research

- Research Collections & Support
- Understanding the System-Wide Library
- Data Science
- User Studies
- Scaling Learning
1. Research Collections & Support

- Making Archival and Special Collections More Accessible
- Addressing the Challenges with Organizational Identifiers and ISNI
- Registering Researchers in Authority Files
2. Understanding the System-wide Library

- **Strength in Numbers: The Research Libraries UK (RLUK) Collective Collection**
- **Interlibrary Loan Cost Calculator**
- **Stewardship of the Evolving Scholarly Record: From the Invisible Hand to Conscious Coordination**
3. Data Science

- VIAF® (Virtual International Authority File)
- Multilingual Bibliographic Structure
- Cookbook Finder
- OCLC Linked Data Research
4. User Studies

• **Shaping the Library to the Life of the User: Adapting, Empowering, Partnering, Engaging**

• **Digital Visitors and Residents: What Motivates Engagement with the Digital Information Environment?**
5. Scaling Learning

- WebJunction
gracias (Thank you)

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Because what is known must be shared.
Library services development in an emerging collaborative landscape

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Emerging landscape of research support at research universities

- Research Data Management (RDM)
- Research Information Management (RIM)
- Open Educational Resources (OER)
- Digital Scholarship
- Institutional Repository (IR)

Research Support Services
Emerging landscape of research support at research universities

- Research Data Management (RDM)
- Research Information Management (RIM)
- Open Educational Resources (OER)
- Institutional Repository (IR)
- Digital Scholarship

Research Support Services
What is RIM?

Broadly defined, RIM is the integrated collection of the scholarly outputs of its researchers by an institution.

Database with structured publications & research information
- Information sourced from on- and off-campus

Public researcher expertise profiles

Benchmarking & reporting

Integration with campus IR

Faculty activity reporting workflows
## RIM adoption is a collaborative enterprise

<table>
<thead>
<tr>
<th>Northwestern University</th>
<th>University of Illinois at Urbana-Champaign</th>
<th>University of Minnesota</th>
<th>Virginia Tech</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main project goals</strong></td>
<td>• Profiles/discovery</td>
<td>• Profiles/discovery</td>
<td>• Profiles/discovery</td>
</tr>
<tr>
<td></td>
<td>• Reporting</td>
<td></td>
<td>• Reporting/assessment (planned)</td>
</tr>
<tr>
<td><strong>Project sponsors</strong></td>
<td>• Human Resources</td>
<td>• Research Office</td>
<td>• Provost</td>
</tr>
<tr>
<td></td>
<td>• Provost</td>
<td>• Library</td>
<td>• Research Office</td>
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<tr>
<td></td>
<td>• Library</td>
<td>• Colleges</td>
<td>• IT</td>
</tr>
</tbody>
</table>

**URL**

- Northwestern: [scholars.northwestern.edu](http://scholars.northwestern.edu)
- Illinois: [experts.illinois.edu](http://experts.illinois.edu)
- Minnesota: [experts.umn.edu](http://experts.umn.edu)
- Virginia Tech: [www.lib.vt.edu/vivo](http://www.lib.vt.edu/vivo)

Adapted from handout from “Facilitating Researcher Discovery Across all Disciplines: Challenges and Strategies for Implementing Campus Researcher Profiles for Humanists and Social Scientists,” Ruth Allee, Rebecca Bryant, Kate McCready, and Julie Speer, Digital Library Federation, Vancouver, BC, 26 Oct 2015.
As both the local institutional and public science policy interest in university outputs grows, this will become a more important area, and the library will increasingly be a partner. Research Information Management is a part of a slowly emerging view of how institutional digital materials will be managed more holistically, with a clear connection to researcher identity.

Lorcan Dempsey
Librarians’ perspectives on the factors influencing RDM
Factors influencing RDM

COMMUNICATION, COORDINATION, AND COLLABORATION: 66.67%
HUMAN RESOURCES: 33.33%
LEADERSHIP SUPPORT: 30.56%
RESEARCHERS' PERCEPTIONS OF THE LIBRARY: 25.00%
TECHNICAL RESOURCES: 22.22%

n=36
Communication, coordination, and collaboration

- With other campus units: 50.00%
- With colleagues in the library: 25.00%
- With researchers: 22.22%
- With other institutions off campus: 8.33%

n=36
Communication, coordination, and collaboration

“I've been working with in collaboration with our new STEM librarian to figure out what path the library can embark upon to assist faculty.”

- Librarian 18

25% mentioned with colleagues in the library

n=36
Communication, coordination, and collaboration

“what's like, really key for the role of the subject librarian or liaison librarian is getting to know our communities and perceiving what the need is...For now, at this stage, that might be the most useful thing that we can do.”

- Librarian 05

22% mentioned with researchers

n=36
Communication, coordination, and collaboration

"we're searching for someone to be our point-person for data management,…what the library should be doing is going to be driven partly by how that person communicates with all of the other units on campus to divide up the work."

- Librarian 22

n=36
Communication, coordination, and collaboration

“In our consortium, we have different data libraries doing similar but also different things at different institutions..., and we've been [asking], ‘What are you doing?’ and ‘Hey, we're going to do this, do you want to jump in with us on this and help alleviate costs and burdens?’”

- Librarian 28
Implications

• Build relationships to prepare for where you are going

• Consider partnerships within and outside of the institution

• Dedicate resources to the messaging
merci (thank you)

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Because what is known must be shared.
Library Resource Description after MARC: Lessons from OCLC's Experiments with Linked Data

Carol Jean Godby
Senior Research Scientist
Subject heading schemes have served the library community for more than 100 years.

But their value can be leveraged in aggregations of machine-understandable records.

This has been a classic focus of OCLC Research.
OCLC
Research has recently produced WorldCat Linked Data.

It works on entities, not records.

WorldCat and other record collections have been mined to produce descriptions of People, Places, Creative Works, and Concepts.
Einstein, Albert

Overview

Works: 231 works in 956 publications in 12 languages and 3,160 library holdings

Genre: Biography, History, Records and correspondence, Popular science literature

Roles: Author, Honoree, Author of Introduction, Dedicated

Classifications: Q06, 530.1

Publication Timeline

Most widely held works about Albert Einstein

- Albert Einstein: genius behind the theory of relativity by Pio Nono Mondonico
- Einstein and the history of general relativity: based on the proceedings of the conference held at the University of Missouri-Columbia, November 7-11, 1977 by Robert R. Wilson
- Einstein and the universe, a popular exposition of the famous theory by George Gamow
- Gödel meets Einstein: time travel in the Gödel universe by Palais Young
- Albert Einstein by Albert Einstein (Book)

Most widely held works by Albert Einstein

Relativity: the special and the general theory by Albert Einstein (Book)

214 editions published between 1917 and 2018 in 12 languages and held by 747 libraries

Relativity: The Special and General Theory is an introduction to Einstein's space-time theory of gravitation, respectively. Einstein's theories shocked the world and laid the foundation for the modern understanding of the universe.

Die Entstehung der Physik von Newton bis zur Quantentheorie by Albert Einstein (Book)

56 editions published between 1960 and 2016 in 3 languages and held by 251 libraries

Allgemeinverstandliche Einführung in die Probleme der modernen theoretischen Physik by Albert Einstein (Book)

Out of my later years. [Essays] by Albert Einstein (Book)

About 62,000,000 results (0.48 seconds)

The Official Licensing Site of Albert Einstein

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Albert Einstein - Wikipedia, the free encyclopedia

https://en.wikipedia.org/wiki/Albert_Einstein

Albert Einstein was a German-born theoretical physicist. He developed the general theory of relativity, one of the two pillars of modern physics (alongside quantum mechanics).

Hans Albert Einstein - Mass-energy equivalence

Eduard Einstein

Elsa Einstein

Albert Einstein (@AlbertEinstein) | Twitter

https://twitter.com/AlbertEinstein

5 mins ago - View on Twitter

ALBERT EINSTEIN: FIRST PAPER ON RELATIVITY: Live on sFrancisco Einstein and Mozart. Live at @LincolnCenter with @Univ of Pennsylvania Professor Mike Beckman! Permalink to https://www.periscope.tv/sAbx2D

Albert Einstein - Biographical - Nobel Prize

www.nobelprize.org/nobel_prizes/physics/laureates/.../einstein-bio.html

Albert Einstein was born in Ulm, in Württemberg, Germany, on March 14, 1879. Later, they moved to Italy and Albert continued his education at Aarau.

Albert Einstein - Physicist, Scientist - Biography.com

www.biography.com/people/albert-einstein-9255450

Albert Einstein was a German-born physicist who developed the general theory of relativity, among other theories. He is considered the most influential physicist of the 20th century.

Albert Einstein - Facts & Summary - HISTORY.com

www.history.com/topics/albert-einstein

Find out more about the history of Albert Einstein, including videos, interesting articles, pictures, historical features and more. Get all the facts on HISTORY.com

9 Things You May Not Know About Albert Einstein - History Lists


Oct 26, 2015 - The ambitious Albert Einstein challenges centuries of scientific thought with his new controversial idea, the General Theory of Relativity.

The Year Of Albert Einstein - Science | Smithsonian

smithsonianmag.com/science-nature/the-year-of-albert-einstein.75641381/

Four months, March through June 1905. Albert Einstein produced four papers that revolutionized physics.

Quotes

Imagination is more important than knowledge.

Two things are infinite: the universe and human stupidity, and I'm not sure about the universe.

The important thing is not to stop questioning. Curiosity has its own reason for existing.

People also search for

Isaac Newton

Eduard Einstein

Stephen Hawking

Elsa Einstein

Thomas Edison

More images
The two models of the Web

**Web of Documents**
- Web pages or other documents
- Human-readable text
- Independent
- Static

**Web of Data**
- Statements about entities, or ‘Things’
- Machine-processable data
- Integrated
- Actionable
REPURPOSING LEGACY DATA
Identifiers and entity hubs

- Wikidata and VIAF
  - https://www.wikidata.org/wiki/Q937
  - http://viaf.org/viaf/75121530

- WorldCat Works
  - http://experiment.worldcat.org/entity/work/data/369081611

- Library of Congress Subject Headings
  - http://id.loc.gov/authorities/subjects/sh85101653.html
## The evolution of identifiers

<table>
<thead>
<tr>
<th>URI</th>
<th>URL</th>
<th>ID</th>
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<tbody>
<tr>
<td>Persistent</td>
<td>Web accessible document</td>
<td>A control number</td>
</tr>
<tr>
<td>Globally unique</td>
<td></td>
<td>Database record</td>
</tr>
<tr>
<td>‘A Thing’</td>
<td></td>
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</tr>
</tbody>
</table>
An example: identifiers for Albert Einstein

Library of Congress Control number n93098349 is the source of the authorized heading “Einstein, Albert $d$ (1879-1955).”

URL: Location for the LC Name Authority Web document: https://lccn.loc.gov/n93098349

URI: http://id.loc.gov/rwo/agents/n93098349.

A description of the “person” Albert Einstein.
The PCC-URI Task Group

The Charge
How should URIs be added to MARC records to ease the transition to Linked Data?

Participants

• British Library, German National Library, Library of Congress, National Library of Medicine, OCLC.
• University libraries at Cornell, Columbia, George Washington, Harvard, Ohio State, Stanford, University of Washington
PUBLISHING AND CONSUMING LINKED DATA
OCLC’s linked data resources

WorldCat Works

WorldCat Catalog

FAST

ISNI

VIAF
The EntityJS explorer

Source: Jeff Mixter and Bruce Washburn
Lincoln, Robert Todd, 1843-1926

About
Born: Aug 1, 1843
Died: Jul 26, 1926

Robert Todd Lincoln (August 1, 1843 – July 26, 1926) was an American lawyer and Secretary of War, and the first son of President Abraham Lincoln and Mary Todd Lincoln. Born in Springfield, Illinois, United States, he was one of two of Lincoln’s four sons to live to adulthood, and the only one to survive into the 1900s.

Father:
Abraham Lincoln

Mother:
Mary Todd Lincoln

Spouse:
Mary Luince Harlan

Related Works
As a Creator

Letter: 1911 Apr 28 [to] Mr. Starrett?

Autograph letter signed: Chicago, to [Henry Mills]
Alden, n.p., 1895 Nov. 21.

Autograph letter signed: Chicago, to [Henry Mills]
Alden, n.p., 1895 Nov. 21.

Autograph letter signed from Robert Todd Lincoln,
Chicago, to Miss Post 1901 January 29.

Autograph signature of Robert Lincoln to a
typewritten letter: Chicago, to Mr. Morgan, 1908
Jan. 20.

Letter: Chicago, to Belle F. Keyes, Boston, 1885
Dec. 16.

Letter: Chicago, to Clinton L. Corling.

Related Media

Related People
Abraham Lincoln
Mary Todd Lincoln
William Eleazar Barton
Mrs. James G. Blaine

Related Organizations
William E. Barton Collection of Lincolniana
(University of Chicago)
Republican Party (U.S. : 1854-
United States. Supreme Court.
United States. War Department

Related Places
United States
Illinois.
Illinois–Chicago.
New York (State)
EXTENDING THE SCOPE OF AUTHORITY CONTROL
Registering Researchers in Authority Files

Addressing the Challenges with Organizational Identifiers and ISNI
“National Strategy for Shareable Local Authorities”

Partners
- The BIBFLOW Project, the Coalition for Networked Information, the Library of Congress, OCLC, ORCID, the Program for Cooperative Cataloging, the Social Networks and Archival Context Cooperative (SNAC).
- University libraries at Cornell, Harvard, and Stanford.

Principal Investigator
Chew Chiat Naun, Director of Cataloging and Metadata Services.
Cornell University Library
The leading edge: Persons and Works

Defining creator roles beyond the published monograph. Tracking creators throughout their careers. Tracking pseudonyms, collective names, and personas. Linking to 3rd-party datasets.

Connecting creators to works. Defining the model of “format” that users understand. Delivering the objects that users ask for. Identifying the simplest possible model of ‘work’ that cuts across all formats and genres.
Because what is known must be shared.

Jean Godby
Senior Research Scientist
godby@oclc.org
Scaling Supercharged Storytimes

Betha Gutsche
WebJunction Program Manager
1. Health
2. Lifelong Learning
3. Economic Success etc.

Understand & Identify Needs

Evaluate Service Outcomes

Capacity:
- Technology
- Space
- Competency

Reach Target Audiences

Design & Deliver Services

WebJunction®
The Need

Young children need to build essential early literacy skills.

Public library staff need to know they are making a difference.

Photo credit: Project VIEWS: http://views2.ischool.uw.edu
The Research

“Do library storytimes help young children develop early literacy skills?”
The Research

“A purposeful focus on early literacy concepts in storytimes makes a difference on the program and the children’s early literacy behaviors”

– VIEWS2

http://views2.ischool.uw.edu/welcome-directors/
Research moves to practice
Provide an online orientation and community of practice for storytime practitioners. Scale.
Peer Learning Community

“"The online community allows me to share resources with others who may have more experience than me, and not feel intimidated.”

“We learn from our peers best. They motivate us and provide the "spark" to try new things.”

Facilitated instruction + individual practice + peer-to-peer sharing and reflection
Building Capacity

- Knowledge
- Awareness
- Confidence
- Community
Bridge Research and Practice
Project Resources

- Supercharged Library
- Orientation Outline
- Supercharged Storytime Course

Available on

www.webjunction.org
danke (Thank you)

Betha Gutsche
Webjunction Program Manager
gutscheb@oclc.org

Because what is known must be shared.
Questions
Welcome...
Because what is known must be shared.