Decentralizing Knowledge

Open Source and Open Data in Libraries

Tamir Borensztajn
tamirb@ebsco.com

EBSCO
How do we accelerate research and help users gain new insights?
Accelerate research

serendipity

[ˌsɛrəndɪˈpɪti]  the luck some people have in finding or creating interesting or valuable things by chance.
Today, we assume certain pathways to information
Creating new pathways to information by meeting users where they are.

Creating new insights by making relationships between people, places, disciplines, etc. more visible.
Library collections today

- Catalogs (MARC)
- Repositories (DC)
- Archives (EAD)
Library collections today

Libraries have rich and diverse collections, but today:

− Library collections are not visible anywhere on the Web
− Library collections are not connected to other data sources on the Web

As a result:

− Users have fewer access points and pathways to information
− Library collections miss out on usage (new visitors from the Web)
− Library collections lack potential enrichments and connections to many topics, places, people, etc. that the Web has to offer
transform

Make catalogs portable, visible and connected on the Web
...expresses library resources (e.g., works, people, genres, etc.) and relationships (to places, people, genres, etc.) as links – for use on the web.
Example: how we use MARC to create BIBFRAME
Let’s look at the Einstein example…

Transforming MARC to BIBFRAME resources. each resource becomes a link that serves as a unique identifier.
Example: how we use MARC to create BIBFRAME
Let’s look at the Einstein example…

Transforming MARC to BIBFRAME resources.
each resource becomes a link that serves as a unique identifier
Example: using BIBFRAME resources to create relationships
Each resource is a link. The relationship is a link as well.

Subject
The world as I see it (Work)

http://link.dclibrary.org/resource/aJIUtrP9HWg

Predicate (relationship)
bf:creator

Einstein, Albert, 1879-1955 (Person)

http://link.dclibrary.org/resource/Rh5lkqhCBU8

http://bibfra.me/vocab/lite/creator
BiblioGraph
Using BIBFRAME to connect, enrich and publish library resources on the Web

**Connect**
- all works by and about an author / researcher / faculty
- works within a genre,
- works about a place, etc.

**Enrich**
with information about the author / researcher / faculty:
alternative names, date of birth, occupation, areas of study, political affiliations, etc.

**Publish**
anywhere on the World Wide Web:
- Learning Management System,
- IR,
- department website,
- And many more
Connect catalogs to other catalogs and data sources within an ever-expanding graph.
Resources are connected in an ever-expanding graph on the Web of connected catalogs and authoritative data sources. This allows libraries to take advantage of linked data in multiple ways:

- Resource enrichment and connections for serendipitous discovery
- Publish resources to websites and create new pathways to information
- Collection development and analysis
Enrich

Library Knowledge Graph - University of Melbourne Library

Albert Einstein

German-born theoretical physicist; developer of the theory of relativity (1879–1955)

Name: Albert Einstein
AKA: Einstein, A. Einstein
Born: March 13, 1879 in Ulm
Died: April 17, 1955 in Princeton
Cause of death: Natural causes [Abdominal aortic aneurysm]
Remains: National Museum of Health and Medicine
Occupation(s): Physicist
Citizenship: German Empire
Gender: Male
Politics: German Democratic Party
Religion: Pantheism

LCNAF, ORCID, WikiData, etc.
Publish collections to the Web

Selected Online Reading on Artificial Intelligence and Law

Find a list of selected books, electronic books and articles, online databases, newswires and training sessions to enhance your knowledge from home.

Overview

The Library has prepared compilations of selected reading material and information sources on specific topics. These compilations bring together books, e-books, articles, databases, e-journals, newswires and other useful resources selected by Library colleagues.
Collection analysis

Compare collections with peer institutions and see what is missing.

Collection analysis can be multidimensional, not just holdings – people, places, publishers, faculty, etc.
Challenge: the legacy library system is ‘closed’
Open Source
Library Services Platform

folio

Open data becomes native to FOLIO and weaves libraries immediately into the World Wide Web
What is FOLIO?

Service providers

<table>
<thead>
<tr>
<th>ILS functionality &amp; ERM</th>
<th>Interoperability</th>
<th>Extensibility &amp; innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulation, acquisition, cataloging, OPAC, ERM</td>
<td>APIs / integrations</td>
<td>Apps OSS or proprietary</td>
</tr>
</tbody>
</table>

collaboration of libraries, developers and vendors
The Open Library Foundation ensures the availability, accessibility and sustainability of open source and open access projects for and by libraries.
Library of Congress Launches Effort to Transform Collections Management and Access

Release Date: 21 Sep 2022

EBSCO will tailor FOLIO, a community-developed open-source library services solution, to provide a library service platform that meets the Library's IT requirements and the needs of the Library's users.

"This is a milestone in our journey to implement a user-centered approach to connecting more people to the Library's collections," said Librarian of Congress Carla Hayden. "We are grateful for Congress' generous investment in this next-generation system that is essential to the Library's digital-forward strategy, which harnesses technology to bridge geographical divides, expand our reach and enhance our services."

The platform will replace several legacy IT systems and provide Library staff with new, more efficient tools and workflows to manage continuously growing physical and digital collections at scale. It will offer researchers a streamlined discovery experience and new ways to access high quality metadata. It also will enable the use of BIBFRAME, a new bibliographic description standard being developed by the Library and partner organizations that uses a linked data model to make bibliographic information more useful both within and outside the library community.
FOLIO & BIBFRAME
What functionality will FOLIO provide?

• Linked data editing functionality for FOLIO that gives users the ability to create and manage BIBFRAME resources and relationships
• Automated authority management that syncs authorities with bibliographic MARC records
• Automated enrichment services for authority and entity management that use third-party authoritative data sources such as LCSH, LCNAF, ORCID, WikiData, etc.
• Networked BIBFRAME data sharing between libraries and consortia
• Each FOLIO catalog becomes a graph that is connected to other graphs
“OSS …represents a pool of knowledge, which is accessible and usable by all companies and individuals worldwide, and is therefore a public good in its purest form.”

European Commission’s DG CONNECT study (2021) on OSS
How do we accelerate research and help users gain new insights?

Make catalogs portable and visible on the Web
Create new pathways to enriched and connected resources
Redefine bibliographic description with FOLIO
Thank you

Tamir Borensztajn
tamirb@ebsco.com

EBSCO