

From MARC to Bibframe in a Global Ecosystem

BIBFRAME Workshop in Europe
20th Sep, 2023

Adina Marciano and Xiaoli Li

Agenda



Ex Libris and Bibframe



Hear from the community



Focus group for production



Integration with Sinopia



Challenges and solutions



Looking to the future

What Are the Benefits of Linked Open Data?



Efficient
Cataloging



Better
Discoverability



Global
Interoperability

← - - - - - **Community** - - - - - →

Efficient Cataloging - Supporting the Linked Open Data Journey

Alma

SINOPIA

MARC

Bibframe

ExLibris
Part of Clarivate

Primo

Welcome to the Next Discovery Experience

Search for Works, Persons, Subjects or Publications



Library Catalog ▾

Search anything



Welcome to the Next Discovery Experience

Search for Works, Persons, Subjects or Publications



Library Catalog ▾

albert einstein

Autocomplete

History

Albert Einstein

Art

Album

Albinism

Alberta journal of educational

Albion



Albert Einstein (1879-1955)

German-born theoretical physicist; developer of the theory of relativity



Albert Edelfelt (1854-1905)

Finland Swedish painter and illustrator

[Advanced Search](#) ↗

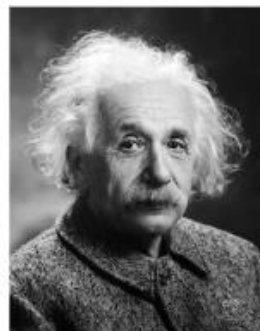
Search

Saved Items

Advanced Search

Journals Search

Collections



Albert Einstein | 1879–1955

Person Information

German-born theoretical physicist; developer of the theory of relativity

Albert Einstein was a German-born theoretical physicist, widely acknowledged to be one of the greatest physicists of all time. Einstein is known for developing the theory of relativity, but he also made important contributions to the development of the theory of quantum mechanics. Relativity and quantum mechanics are together the two pillars of modern physics. His mass–energy equivalence formula $E = mc^2$, which arises from relativity theory, has been dubbed "the world's most famous equation". His work is also known for its influence on the philosophy of science. He received the 1921 Nobel Prize in Physics "for his services to theoretical physics, and especially for his discovery of the law of the photoelectric effect", a pivotal step in the development of quantum theory. His intellectual achievements and originality resulted in "Einstein" becoming synonymous with "genius".

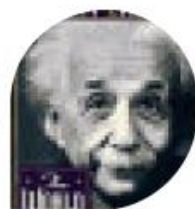
- Born March 14, 1879, Ulm, Germany
- Died April 18, 1955, Princeton, New Jersey, United States
- Employer University of Bern, Swiss Federal Institute of Intellectual Property, University of Zurich, German University in Prague, ETH Zürich, Kaiser Wilhelm Society, Princeton University
- Occupation theoretical physicist, philosopher of science, inventor, science writer, pedagogue
- Field of work theoretical physics

Titles written by Albert Einstein



Relativity : the Special & the General Theory

Albert Einstein
1879-1955; Hanoch Gutfreund; Jürgen



The world as I see it.

Albert Einstein
1879-1955[Abridged d] New York



Einstein, Albert. Out of My Later Years

Rogers, Michael

Titles written about Albert Einstein



Annus mirabilis : 1905, Albert Einstein, and the...

John Gribbin 1946-; Mary ribbin New York : Chamberlain Bros



Albert Einstein : a biography

Albrecht Fölsing 1940 New York : Viking 1997



Einsteins Akte : Einsteins Jahre in Deutschland aus...

Siegfried Grundmann Berlin : Springer ©1998

Person/Title Relationships

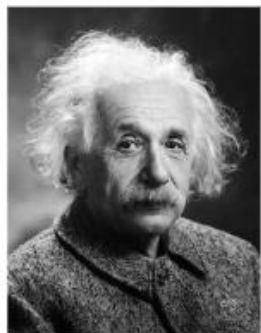
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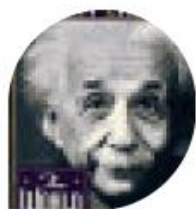
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Ex Libris Supporting Interoperability

- Publishing
 - Converting MARC to Bibframe and Bibframe to MARC
 - Exporting as Bibframe
- New APIs supporting Bibframe work and instance
 - Integration with Sinopia

**With more to
come...**

Ex Libris Working With the Linked Open Data (LOD) User Community



Working Together

Working groups supporting the LOD development

- Meetings
- Finding best practises
- Soliciting use cases and ideas from the community



Following development

- o Providing Feedback
- o Maintaining a dashboard tracking features



Promoting LOD features

- o Community meetings
- o Listserv



Bibframe end-to-end workflow

Supporting BIBFRAME in production in Alma

Working *with* the community, *for* the community

Linked Data Focus Group

UCDAVIS



Northwestern
University



UNIVERSITY OF LEEDS

Princeton

Harvard

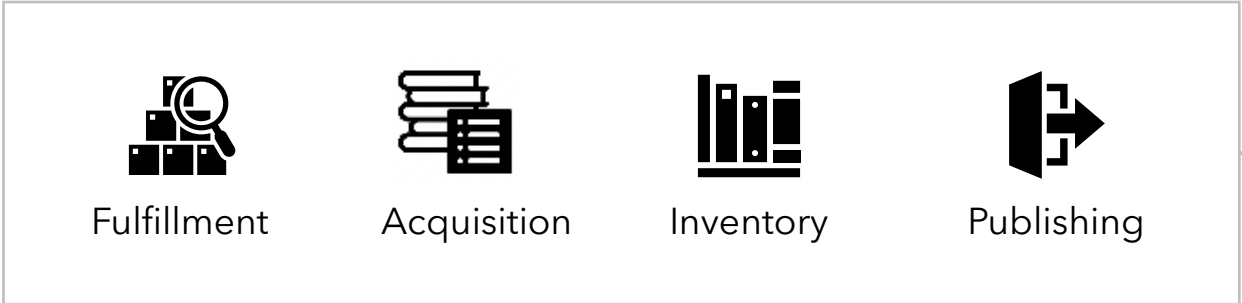
SINOPIA



Cataloging



ExLibris Alma



Management



Discovery



Analytics

Goal

End-to-End Workflow

Sinopia Integration

The screenshot shows the Sinopia development interface. At the top, the browser address bar displays `https://development.sinopia.io/editor/resource/8dede97e-837b-4dee-92de-3832cb1a1067`. The page header includes the text "SINOPIA - DEV" and user information "jimfhahn", "Help", and "Logout". A navigation menu contains "Dashboard", "Editor", "Resource Templates", and "Actions". A search bar contains the text "Sinopia".

The main content area displays the resource name "_PCC BF2 Instance (Monograph)" with an "INSTANCE" label. A large purple arrow points to the "Export to Catalog" button. Other buttons include "Close" and "Save". Below the resource name, the URI is shown as `<https://api.development.sinopia.io/resource/8dede97e-837b-4dee-92de-3832cb1a1067>` with a "Copy URI" button and a "Permissions" link.

On the left, a sidebar menu has "Navigation" selected, with sub-items "Versions" and "Relationships". Under "Navigation", there are sections for "Title Information", "Statement of Responsibility", "Edition Statement", "Transcribed Provider Statement", and "Publication Distribution".

The main content area shows the "Title Information" section with the following details:

- Class: Instance (<http://id.loc.gov/ontologies/bibframe/Instance>)
- Optional classes: <http://id.loc.gov/ontologies/bibframe/Print>

The "Title Information*" section contains a text input field with the value "Title--Instance Title" and a "+ Add another Title--Instance Title" button. Below the input field, the property is identified as `Property: http://id.loc.gov/ontologies/bibframe/title`.

Sinopia Integration

Penn Libraries

All titles - MMS ID -

Work View Back

Record

```
<record>
<rdf:RDF xmlns:bf="http://id.loc.gov/ontologies/bibframe/" xmlns:bflc="http://id.loc.gov/ontologies/bflc/" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#" xmlns:sinopia="http://sinopia.io/vocabulary/">
<bf:Work rdf:about="https://api.stage.sinopia.io/resource/a074d962-16b8-4bc6-9ee4-c7d4ab56bb14">
<rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Text"/>
<rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Monograph"/>
<sinopia:hasResourceTemplate>pcc:bf2:Monograph:Work</sinopia:hasResourceTemplate>
<bf:hasInstance rdf:resource="https://api.stage.sinopia.io/resource/d0b6f03d-786d-48b1-a087-6eb7d6606351"/>
<bf:title>
<bf>Title rdf:nodID="f56389e74faf343f48016b0c65441233ab1">
<bf:mainTitle xml:lang="en">Global perspectives on early medieval England</bf:mainTitle>
</bf>Title>
</bf:title>
<bf:contribution>
<bf:Contribution rdf:nodID="f56389e74faf343f48016b0c65441233ab2">
<bf:agent rdf:resource="http://id.loc.gov/authorities/names/no96031050"/>
<bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/edt"/>
</bf:Contribution>
</bf:contribution>
<bf:contribution>
<bf:Contribution rdf:nodID="f56389e74faf343f48016b0c65441233ab3">
<bf:agent rdf:resource="http://id.loc.gov/authorities/names/no2017001074"/>
<bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/edt"/>
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<bf:Contribution rdf:nodID="f56389e74faf343f48016b0c65441233ab4">
<bf:agent rdf:resource="http://id.loc.gov/authorities/names/no2001080752"/>
<bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/edt"/>
</bf:Contribution>
</bf:contribution>
</record>
```

Global perspectives on early medieval England

MMS ID
9779064875403681

Suppress from Discovery
Yes

Export to WorldCat
Don't publish

Brief level
-

Record Format
lc_bf_work

Suppress from external
No

Originating system
01UPENN_INST

Originating system ID
a074d962-16b8-4bc6-9ee4-c7d4ab56bb14

Originating system version
-

Alma Sandbox

Acquisitions

Resources

Admin

Analytics

Sinopia to Alma Data Flow in ILS-Middleware

Quality Check	Assure Work and Instance RDF are linked
Normalize	Normalize the Sinopia RDF for Alma input
Post Work	Or update Work
Post Instance	Or update Instance

Challenges and Solutions



Large Scale API calls

- Can Linked Open Data systems truly support large-scale vendor API requests?
- Caching system vs. “pure” linked open data systems
- The importance of the labels for end-user convenience (reducing API calls)



Consistent & persistent URIs

- Institution URI vs. Vendor URI, making them configurable
- Collaborative cataloging – Do we create multiple URIs per institution



Blank node vs. URI minting service

- What to do with entities or terms without an authoritative URI from a communal cataloging source?

Future Challenges

- Libraries are first and foremost focused on supplying their local patrons with what they need
- Linked open data still needs to support uniqueness and the use of local fields

“History does not repeat itself, but it rhymes.”

(Mark Twain)

Summary



We support catalogs with multi formats including Bibframe



We work with the community toward a linked future



We are creating solutions that fit the wide-scale long-term requirements



There are many challenges ahead, and we will face them together

Linked Open Data: The Missing Link in the Library Evolution

Thank You



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About Clarivate

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