



Share Family Workshop

June 30th 2025, ALA Annual 2025, Philadelphia

this slide deck <http://bit.ly/SF-ALA-2025-slides>

recording available at <https://youtu.be/tgm3rGdrbuo?feature=shared>

<https://share-family.org>

<https://wiki.share-family.org>

info@share-family.org

<https://svde.org>

BIBFRAME has Entered the Chat

Jim Hahn, University of Pennsylvania



Retrieval Augmented Generation (RAG)

(RAG) is a technique that enables large language models (LLMs) to retrieve and incorporate new information

Example of RAG with SPARQL

spinach.genie.stanford.edu 50%

What collections of the Penn Libraries are unique?

Used Intermediate thoughts ^

- Used Step 1: search_wikidata
- Used Step 2: search_wikidata
- Used Step 3: get_wikidata_entry
- Used Step 4: get_wikidata_entry
- Used Step 5: get_wikidata_entry
- Used Step 6: execute_sparql
- Used Step 7: execute_sparql

Final SPARQL Query:

```
Raw code
SELECT ?collection ?collectionLabel WHERE {
  ?collection wdt:P126 wd:Q18572874;
  wdt:P31 wd:Q9388534.
  SERVICE wikibase:label { bd:serviceParam wikibase:language
    "[AUTO_LANGUAGE],en". }
}
```

[Try it on Wikidata Query Service](#)

Result:

- **Arnold and Deanne Kaplan Collection of Early American Judaica** (Q124336571)

This collection is part of the Penn Libraries and has been identified as unique. Let me know if you'd like further exploration or details!

spinach_output...

Type your message here...

SPINACH: SPARQL-Based Information Navigation for Challenging Real-World Questions

Shicheng Liu^{†*} Sina J. Semnani^{†*} Harold Friedman^{‡§} Jialiang Xu[†]
Isaac Dan Zhao[†] Monica S. Lam[†]

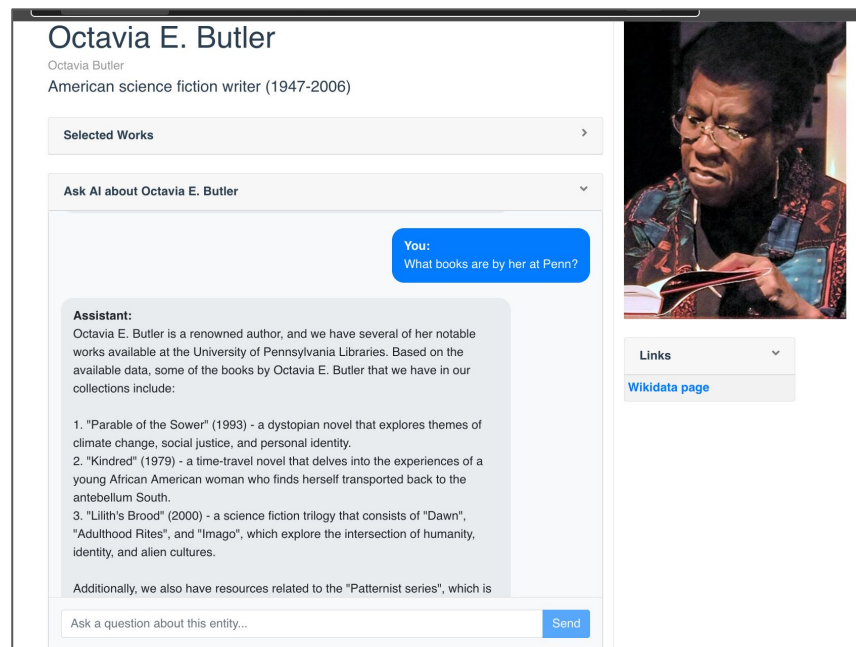
[†]Stanford University [‡]Cornell Tech

<https://arxiv.org/abs/2407.11417>



Motivating question

How will users of the catalog access BIBFRAME linked data through RAG?



The screenshot displays a BIBFRAME record for Octavia E. Butler. The record includes her name, a portrait photo, and a list of selected works. A chat interface is overlaid on the record, showing a user query and an AI-generated response.

Octavia E. Butler
Octavia Butler
American science fiction writer (1947-2006)

Selected Works

Ask AI about Octavia E. Butler

You:
What books are by her at Penn?

Assistant:
Octavia E. Butler is a renowned author, and we have several of her notable works available at the University of Pennsylvania Libraries. Based on the available data, some of the books by Octavia E. Butler that we have in our collections include:

1. "Parable of the Sower" (1993) - a dystopian novel that explores themes of climate change, social justice, and personal identity.
2. "Kindred" (1979) - a time-travel novel that delves into the experiences of a young African American woman who finds herself transported back to the antebellum South.
3. "Lilith's Brood" (2000) - a science fiction trilogy that consists of "Dawn", "Adulthood Rites", and "Imago", which explore the intersection of humanity, identity, and alien cultures.

Additionally, we also have resources related to the "Patternist series", which is

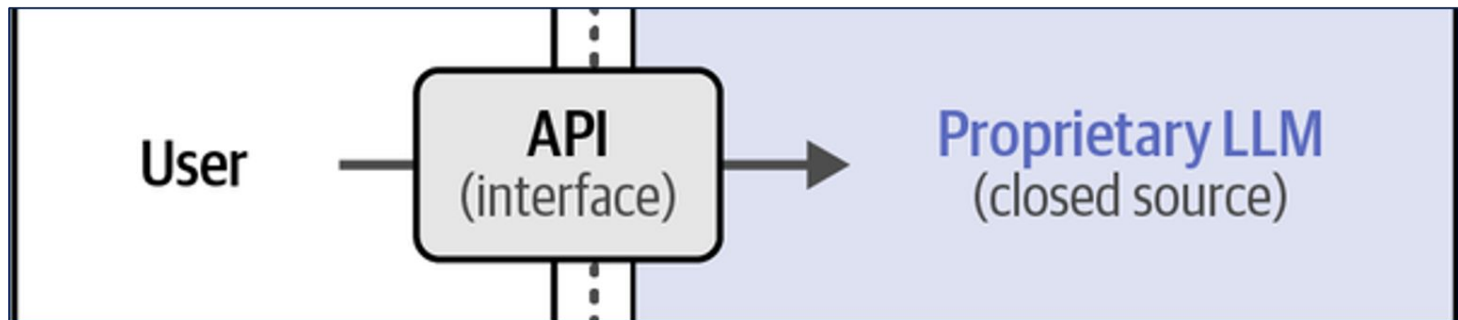
Ask a question about this entity... **Send**

Links
[Wikidata page](#)

Conceptual Foundations for BIBFRAME RAG

- Open LLMs
- ALA RUSA guidelines
- User Tasks / IFLA Library Reference Model (IFLA LRM)
- Model Context Protocol (MCP)
 - Connect to Share-VDE GraphQL, Wikidata

Proprietary Models



Alammar & Grootendorst 2024

Open Models



RUSA Guidelines

Guidelines for Behavioral Performance of Reference and Information Service Providers

RUSA Implementation Scope for BF Chat

The system implements 4 out of 6 RUSA guidelines:

- **Section 1.0 (Inclusion):** Implemented through accessibility detection and referrals
- **Section 3.0 (Engagement):** Implemented through interview techniques and conversation tracking
- **Section 4.0 (Searching):** Implemented through search strategy optimization and guidance
- **Section 6.0 (Closure):** Implemented through adequacy checking and standardized closings

RUSA Implementation Scope

The following RUSA sections are **not** implemented:

- **Section 2.0 (Approachability):** Not suitable for an LLM as it focuses on staff identification, visibility, eye contact, and body language
- **Section 5.0 (Evaluation):** Not implemented as evaluation is handled outside the LLM system

Accessibility Handling

The system prioritizes accessibility needs by checking for them early in the processing flow:

- Accessibility detection happens before general query processing
- When detected, specialized referrals are provided immediately
- The system maintains awareness of assistive technology needs throughout the conversation

IFLA LRM User Tasks

Table 3.1 User Tasks Summary

Find	To bring together information about one or more resources of interest by searching on any relevant criteria
Identify	To clearly understand the nature of the resources found and to distinguish between similar resources
Select	To determine the suitability of the resources found, and to be enabled to either accept or reject specific resources
Obtain	To access the content of the resource
Explore	To discover resources using the relationships between them and thus place the resources in a context

IFLA LRM Task Support

Name disambiguation, Work disambiguation

Identify	To clearly understand the nature of the resources found and to distinguish between similar resources	<p>The user's goal in the <i>identify</i> task is to confirm that the instance of the entity described corresponds to the instance sought, or to distinguish between two or more instances with similar characteristics. In “unknown item” searches, the user also seeks to recognize the basic characteristics of the resources presented.</p> <p>To facilitate this task, the information system seeks to clearly describe the resources it covers. The description should be recognizable to the user and easily interpreted.</p>
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Model Context Protocol

MCP is an open protocol that standardizes how applications provide context to LLMs. Think of MCP like a USB port for AI applications. Just as USB provides a standardized way to connect your devices to various peripherals and accessories, MCP provides a standardized way to AI models to different data sources and tools. This approach connects MCP to GraphQL from Share-VDE and adapts the Wikidata queries from the SPINACH system.



**SPINACH: SPARQL-Based Information Navigation
for Challenging Real-World Questions**

Shicheng Liu^{†*} Sina J. Semnani^{†*} Harold Triedman^{†§} Jialiang Xu[†]
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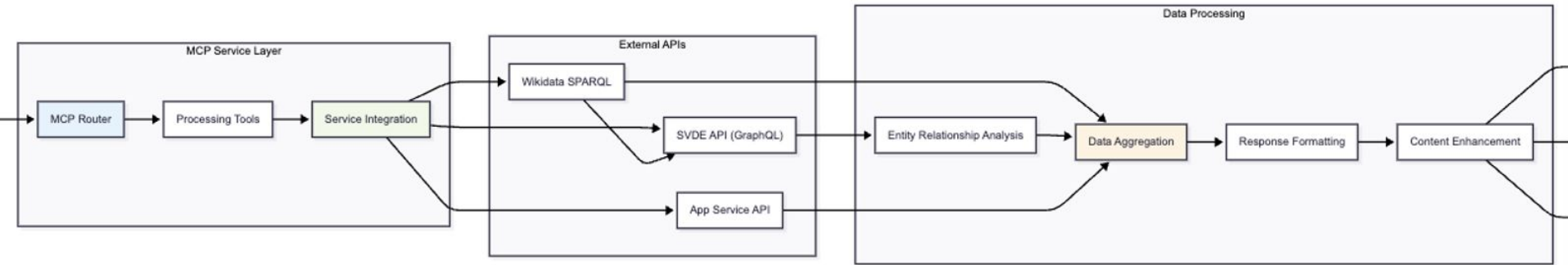
[†]Stanford University [§]Google Tech



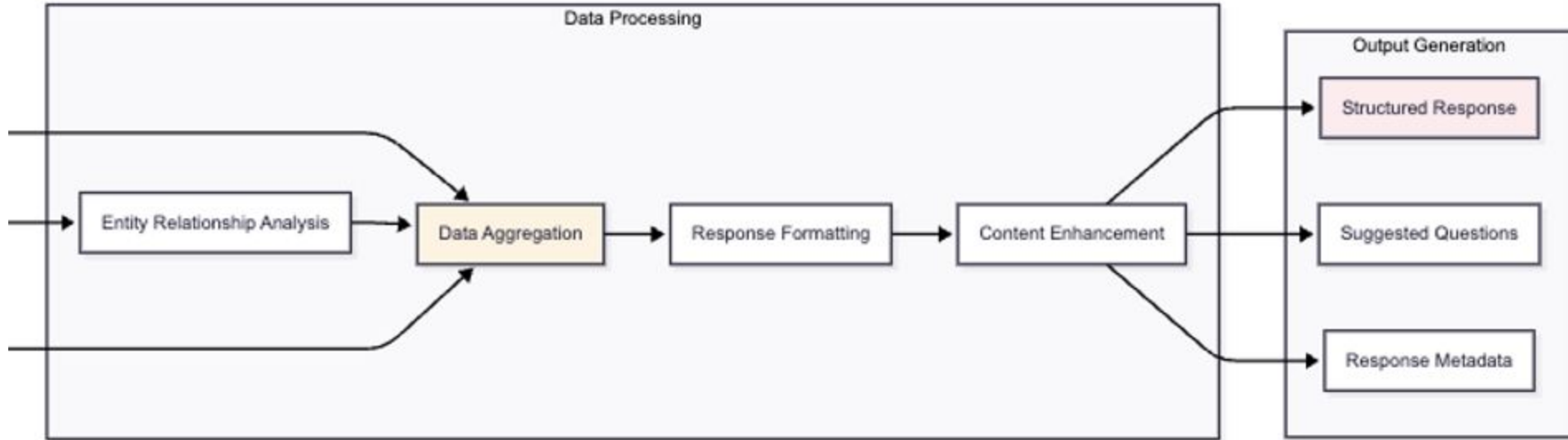
<https://arxiv.org/abs/2407.11417>

<https://modelcontextprotocol.io/introduction>

MCP1: Service Layer Interactions



MCP2: Outputs



MCP LLM Service

MCP LLM Service is the main service class that routes and processes user questions in the AI Knowledge Card Chat, doing the following:

Analyzing and classifying user questions: It determines the type of question (e.g., factual, collections, etc.) using pattern matching and classification logic, and the LLM.

Intent routing: It directs questions to the appropriate processing path, such as direct factual lookup, complex multi-step reasoning, or librarian/help intent detection.

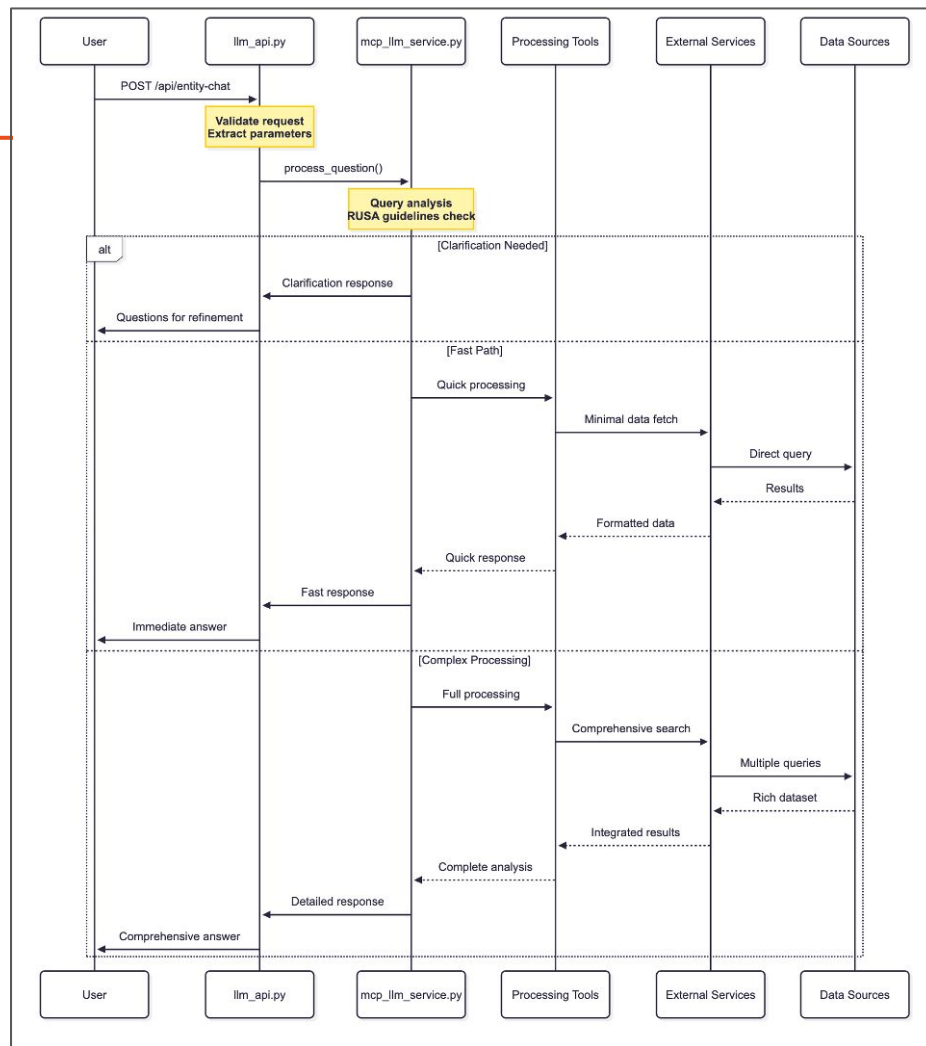
MCP LLM Service

Integrating with agents and tools: BIBFRAME RAG Chat uses the SpinachAgent (adapted as an MCP API) for factual and entity-based queries in Wikidata, and Share-VDE searches for Penn collections questions.

RUSA compliance: BIBFRAME RAG Chat is inspired by RUSA chat guidelines, standardized closings with catalog and librarian links.

Fallback and error handling: If a question cannot be answered, it provides links to the catalog and to library reference services.

Chat processing



You:

When was Bach born?

Assistant:

Johann Sebastian Bach was born on March 31, 1685. They died on July 28, 1750. Johann Sebastian Bach was a music educator, harpsichordist, musicologist, school teacher, organist, concertmaster, virtuoso, conductor, violinist, and choir director. For more detailed information and research assistance, you can chat with a librarian at <https://www.library.upenn.edu/services/ask-question>

I hope this information about Johann Sebastian Bach answers your question. Please let me know if you need any clarification or have related questions.

For the most comprehensive research support:

- Search our full catalog at <https://find.library.upenn.edu/>
- Chat with a subject librarian at <https://www.library.upenn.edu/services/ask-question>
- Browse our research guides and specialized databases

Ask a question about this entity...

Send

Suggested questions:

What genre did Bach work in?

What are Bach's notable compositions?

Who were Bach's students?

LLM uses RAG as knowledge base

You:
I would like to know if Frederick Douglass ever gave a speech in Philadelphia?

Assistant:
I've searched for information on Frederick Douglass giving a speech in Philadelphia, but the available data doesn't provide a direct answer to your question. The information found is related to his autobiography, "Narrative of the Life of Frederick Douglass, an American Slave", which belongs to the autobiography genre. Unfortunately, this doesn't confirm whether he gave a speech in Philadelphia.

If you're looking for more specific information on Frederick Douglass' speeches or events in Philadelphia, more details may be available. For further assistance and to explore additional resources, contact a librarian at <https://www.library.upenn.edu/services/ask-question>. They can help you find more relevant information and provide guidance on your research.

Ask a question about this entity... Send

Suggested questions:

What books did Frederick Douglass write?

Where was Frederick Douglass born?

What genre did Frederick Douglass work in?

Referral

You:
What was Rosa Parks known for?

Assistant:
Rosa Parks is known for her involvement in the civil rights movement, specifically for her activism against racial segregation. She was a prominent civil rights advocate and human rights activist, fighting for civil and political rights. As a public figure, her work had a significant impact on the civil rights movement. While this information provides a general overview of her contributions, more details may be available about her specific actions and achievements. If you're looking for more in-depth information about Rosa Parks, contact a librarian at <https://www.library.upenn.edu/services/ask-question> for further assistance.

Send

Suggested questions:

When was Rosa Parks born?

Where did Rosa Parks live?

What other resources are related to Parks, Rosa?

IFLA LRM Exploration Tasks

Explore	To discover resources using the relationships between them and thus place the resources in a context	<p>The <i>explore</i> task is the most open-ended of the user tasks. The user may be browsing, relating one resource to another, making unexpected connections, or getting familiar with the resources available for future use. The <i>explore</i> task acknowledges the importance of serendipity in information seeking.</p> <p>To facilitate this task the information system seeks to support discovery by making relationships explicit, by providing contextual information and navigation functionality.</p>
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Temporal Network

Building on Wikidata Agent RAG with SPARQL, we will connect to Share-VDE BIBFRAME data.



Here is the SPARQL query used to find authors active during the same period as Virginia Woolf (1904–1941):

Raw code

```
SELECT ?author ?authorLabel ?start ?end WHERE {
  ?author wdt:P31 wd:Q5;
  wdt:P2031 ?start;
  wdt:P2032 ?end.
  FILTER((?start <= "1941-01-01T00:00:00Z"^^xsd:dateTime) && (?end
>= "1904-01-01T00:00:00Z"^^xsd:dateTime))
  SERVICE wikibase:label { bd:serviceParam wikibase:language
"[AUTO_LANGUAGE],en". }
}
LIMIT 10
```

[Try it on Wikidata Query Service](#)

Sample results:

- **Henry Irving** (active: 1856–1905)
- **Jules Verne** (active: 1850–1905)
- **Peter Becker** (active: 1844–1904)
- **Hugo Henneberg** (active: 1890–1904)
- **Eugen Gugel** (active: 1850–1905)
- ...

Geographic knowledge

Building on Wikidata Agent RAG with SPARQL, we will connect to Share-VDE BIBFRAME data.

Findings for "Trace the evolution of Jazz in the U.S."

SPARQL Query:

Raw code

```
SELECT ?event ?eventLabel WHERE {  
  ?event wdt:P31 wd:Q17524420;  
  wdt:P1269 wd:Q8341.  
  SERVICE wikibase:label { bd:serviceParam wikibase:language  
    "[AUTO_LANGUAGE],en". }  
}  
LIMIT 10
```

[Try it on Wikidata Query Service](#)

Result (Sample):

- **Origins of Jazz** (Q106543088)
- **History of Jazz** (Q466571)
- **History of the use of horn in Jazz** (Q5903995)

These entities provide key topics for tracing the evolution of Jazz in the U.S., including its origins and historical developments.



Type your message here...



References

Alammar, J. & Grootendorst, M. (2024). Hands-on large language models : language understanding and generation. First edition. Sebastopol, CA : O'Reilly Media, Inc.

Lewis P, Perez E, Piktus A, Petroni F, Karpukhin V, Goyal N, Küttler H, Lewis M, Yih WT, Rocktäschel T, Riedel S. (2020). Retrieval-augmented generation for knowledge-intensive NLP tasks. In Advances in Neural Information Processing Systems. 33:9459-74.

Shicheng Liu, Sina Semnani, Harold Triedman, Jialiang Xu, Isaac Dan Zhao, and Monica Lam. (2024). SPINACH: SPARQL-Based Information Navigation for Challenging Real-World Questions. In Findings of the Association for Computational Linguistics: EMNLP 2024, pages 15977–16001, Miami, Florida, USA. Association for Computational Linguistics.

BIBFRAME at Last!

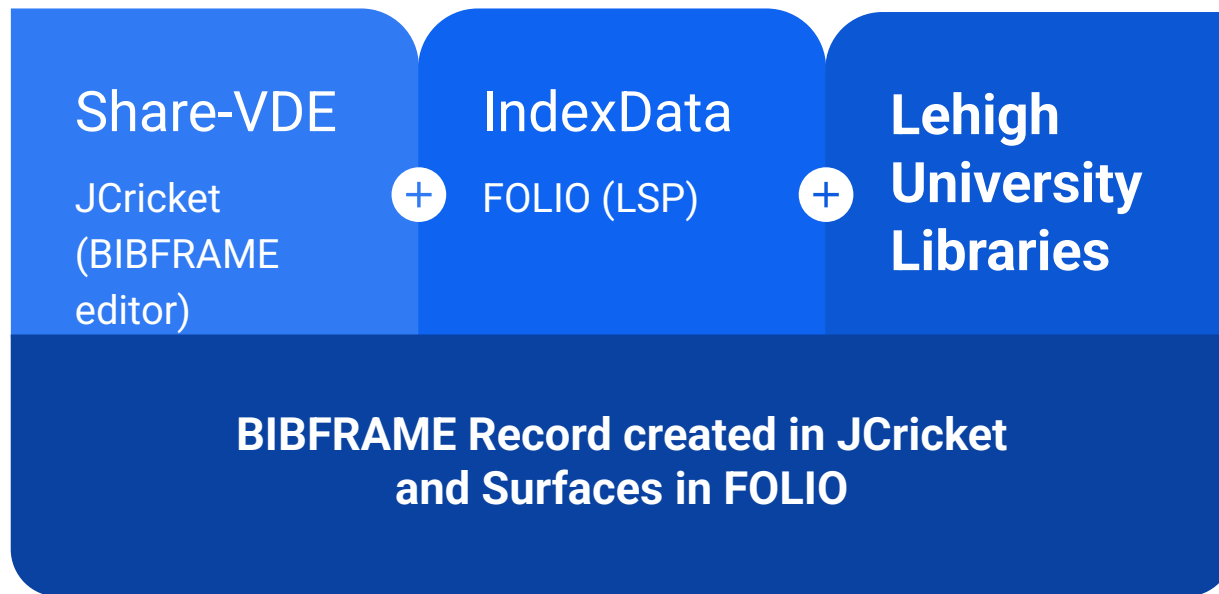
Lisa McColl, Lehigh University



Lehigh University Libraries



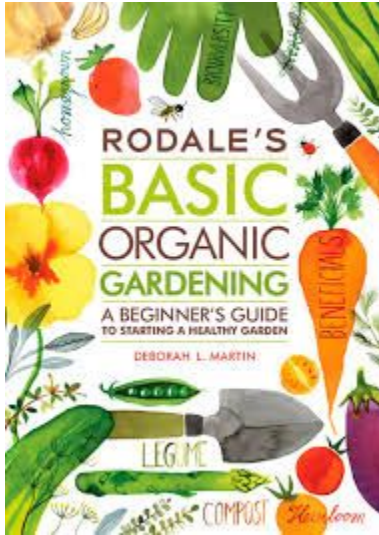
Convergence of Communities



Summary

- Project Plan for BIBRAME cataloging in JCricket
 - The Rodale Collection
 - Research Questions
- Fall 2024 project specifics
- Outcomes and looking forward

Project Plan: The Rodale Collection



Rodale Collection donated to Lehigh in 2018: Archives of the Rodale family: JI (Jerome), Anna, Robert, Ardeth – health and organic movement publishing pioneers in Berks County, PA from 1930s until the sale of Rodale, Inc. to Hearst in 2017. 3 generations of Lehigh graduates.

- Published and unpublished works of family members
- Journal publications, photos, correspondence, financial records, bibliographies, press clippings, awards, etc. etc.
- Many formats (VHS/Beta, reel-to-reel, cassette and vinyl as well as paper)
- Compilation of Rodale, Inc. periodicals, books, manuscripts, marketing materials
- 3000 monographs, in 27 different languages. About $\frac{1}{3}$ require original cataloging

Project Plan: Research Questions

- Will this approach actually reduce the work of original cataloging and catalog maintenance for a collection like this?
- Will Share-VDE's four tiered ontology create clusters for the works and their translations under the Share-VDE Opus?
- How can work in a shared cataloging environment for Linked Open Data (like Share-VDE) be integrated into bibliographic workflows that are still largely based on the exchange and careful curation of MARC records?
- What are the strengths and weaknesses of FOLIO as a platform for these kinds of hybrid workflows?

Fall 2024 Project Details

- Addition of Library Information Science student, Erin Kloss
- Worked with Korean language monographs and any English language counterparts.
- Worked in a demo environment of JCricket and development environment of FOLIO
- Decided to catalog in MARC and BIBFRAME side-by-side (Special Collections Department wanted records in OCLC plus it was an opportunity to compare methods)
- Worked weekly on Friday afternoons in the collection location.

Outcomes

- Research Questions review
- Great learning experience
- JCricket
 - Easy to learn
 - Controlled vocab for selection
 - [Korean characters showed up in FOLIO accurately](#)
- BIBFRAME learning curve

Looking forward

- Continue to practice cataloging in BIBFRAME using JCricket (Looking forward to JCricket and FOLIO developments)
- Complete collection cataloging and analyze clusters.
- Incorporate linked data into Lehigh's discovery.

Thank you

Lisa McColl
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Lehigh University
lim213@lehigh.edu



How to improve the dialogue and interaction between JCricket and FOLIO

Tiziana Possemato, @Cult and Share Family



Workflow using JCricket as source of truth



JCRICKET

Entity Editor



To enable integration between JCricket and FOLIO, an “**Import Data**” option is added to the editor's Actions menu. When the cataloguer selects “Import Data”, a drawer panel slides in from the right side of the screen.

The screenshot displays the ShareVDE Editor interface. The top navigation bar includes 'ShareVDE', 'Dashboard' (6 unread notifications), 'Explore', 'Simple search', 'Advanced search', and 'Editor' (Instance with unknown title). The 'Editor' section has a dropdown menu with 'Options' and a right arrow. The 'Editor actions' menu is open, showing 'Create instance', 'Import data', and 'Reset form'. The main content area shows the 'Instance with unknown title' form, which is currently not visible. The form has tabs for 'Metadata' and 'Logs'. The 'Basic info' section includes 'URI' (https://test.svde.org/instances/1748973884281) and 'Publication type'. The 'Title and responsibility statement' section includes 'Title' and 'Language' (English (ENG)). The 'Contributors' section includes 'Contributor'.

Overview

- Instance with unknown title

Basic info

URI

https://test.svde.org/instances/1748973884281

Publication type

Title and responsibility statement

Title

Language

English (ENG)

Contributors

Contributor

Editor actions

- Create instance
- Import data
- Reset form

In the “**Search Query**” field, the cataloguer can enter the search term. Pressing “**Search**” will display the results below the search form.

The screenshot displays the ShareVDE web application interface. The top navigation bar includes the ShareVDE logo, a dashboard with 6 unread notifications, and tabs for Explore, Simple search, Advanced search, and Editor. The Editor tab is active, showing the title 'Instance with unknown title | Person with unknown name' and an Options menu. Below the navigation bar, the main content area is divided into a left sidebar and a central editor. The sidebar contains an Overview section with a list of items, including 'Instance with unknown title', and sections for Basic info, Title and responsibility statement, and Contributors. The central editor displays a message: 'This instance is currently not visible. Please link it to a work. Refresh.' Below this message, the editor is organized into sections: Metadata (with a Logs tab), Basic info (containing URI and Publication type fields), Title and responsibility statement (containing Title fields), and Contributors. The right sidebar features an 'Import data' section with a 'Select source' dropdown (set to 'Folio'), a 'Search in' dropdown (set to 'Keyword, title, HRID'), a 'Search query' input field containing the text 'harry', and a 'Search' button.

ShareVDE Dashboard 6 unread notifications Explore Simple search Advanced search Editor Instance with unknown title | Person with unknown name Options

Editor layout UND, ENG, + Editor actions

Instance with unknown title

This instance is currently not visible. Please link it to a work. [Refresh](#).

Metadata Logs

Basic info

URI

https://test.svde.org/instances/1748973884281

Publication type

Title and responsibility statement

Title

English (ENG)

Contributors

Import data

Select source

Folio

Search in

Keyword, title, HRID

Search query

harry

Search

The search results display a list of Inventory Instances. To view the details, select an Instance from the list.

Simple search

Advanced search

Editor
Instance with unknown title |
Person with unknown name

Options

Editor layout | UND, ENG, + | Editor actions

Instance with unknown title

This instance is currently not visible. Please link it to a work. [Refresh.](#)

Metadata | Logs

Basic info

URI

https://test.svde.org/instances/1748973884281

Publication type

Title and responsibility statement

Title

English (ENG)

Import data

Select source
Folio

Search in
Keyword, title, HRID

Search query
harry

Search

Search results

After the genteel tradition; American writers, 1910-1930. With a pref. by Harry T. Moore.

American Victorian costume in early photographs / by Priscilla Harris Dalrymple.

Harry Potter and chamber of secrets

Harry Potter e la pietra filosofale. J.K.Rowling

Narrating reality : Austen, Scott, Elliot / Harry E. Shaw.

As an initial and more feasible solution, the Instance is not imported in its entirety. Instead, each field in the FOLIO Instance can be individually selected and imported into the JCricket Instance.

Overview

“Harry Potter e la Pietra filosofale”

Basic info

URI

Publication type

Title and responsibility statement

Title

Contributors

Contributor

Add property

Person with unknown name

Basic info

URI

Agent type

Name information

Name

Biographical information

Birth date

Death date

Place of birth

“Harry Potter e la Pietra filosofale”

This instance is currently not visible. Please link it to a work. Refresh.

MetadataLogs

Basic info

URI

https://test.svde.org/instances/1748973884281

Publication type

Title and responsibility statement

Title

Harry Potter e la Pietra filosofale

Contributors

Contributor

Import data

Select source

Folio

Search in

Keyword, title, HRID

Search query

harry

Search

Back to search results

Harry Potter e la pietra filosofale, J.K.Rowling

Display in Folio

Instance HRID:

sf1742805330535

Source:

SP-LD

Catalogued date:

2025-03-25 15:20:43

Resource title:

Harry Potter e la pietra filosofale, J.K.Rowling

Alternative title (uniform title)

Harry Potter and the Philosopher's

Workflow using FOLIO as source of truth



*Inventory
Instance*



JCRICKET
Entity Editor



New features proposed as Linked Open Data In FOLIO SIG

← → ↺

folio-org.atlassian.net/wiki/spaces/LD/overview?homepageId=2785288

🔍 ☆

📁 🔗 🌐 📄 🗑️ 👤 ⋮

Trello Google Drive A_Cultuurconnect Casalini&AtCult Acquisti-on-line Bilframe Digital FOLIO Hotel&Ristoranti&... IIIF INPS Inglese IPLC Data Lake IvyPlus LD4 >> Tutti i preferiti

FOLIO Project

Welcome to the FOLIO Wiki

Home Recent Spaces Teams Apps Templates + Create

🔍 Search

👤 ⚙️ 🌐

Linked Data

All content

Space settings

Shortcuts

Meeting notes in space

Content

Blogs

Space apps

draw.io Diagrams

Linked Data

📄

Linked Open Data In FOLIO

👤

About the SIG

Linked Open Data in FOLIO is a SIG with membership open to all members of the FOLIO community. This group continues and expands on the work done by the [Entity Management Working Group](#) (2020-2022).

We champion Linked Open Data. This means the data themselves are open and freely available and the URIs are actionable. This is also an ideological stance. Open means choice of tools, options for integration, an environment in which we can experiment and are not bound to any specific framework.

We are focused on the following:

- Advocating for a community-based approach to linked data and entity management in FOLIO.
- Advocating for and growing a community of practice around BIBFRAME.
- Providing a venue for practitioners and developers to share current work in implementing linked open data workflows and technologies with FOLIO.
- Providing a venue for stakeholders to give input on and inform development of linked data tools in and adjacent to FOLIO.
- Defining and documenting community requirements around implementing linked data within the FOLIO environment, especially regarding the transition to linked data, ensuring that any development within FOLIO does not limit data sources, vocabularies, and workflows
- Exploring, investigating, documenting, and sharing information about development related to linked data within the FOLIO community in order to help libraries select and implement solutions.
- Identifying and informing the broad FOLIO community of library requirements for linked data tools.
- Identifying and addressing challenges libraries will face working in an environment with heterogeneous and potentially volatile data models, formats, and sources as well as decentralized data storage.
- Surveying the current and emergent BIBFRAME technical infrastructure environment in an effort to encourage equitable access to linked open data workflows and production capabilities.

(revised February 2025)

Communication Channels

#linked_data in Slack

[Linked Open Data in FOLIO Google Drive](#) (includes meeting recordings)

Upcoming Meetings

[Meetings occur twice monthly.](#)

👤 📄 🗑️

Share

⋮

Star this space

Members

Name	Affiliation(s)	Area(s) of Interest and Expertise
@Laura E Daniels	Cornell, MM SIG	cataloging, authorities
@Andreas Mace	National Library of Sweden	BIBFRAME, linked data, metadata workflows
@Nancy Lorimer	Stanford	BIBFRAME, cataloging, authorities, AI, workflows
@Kalli Mathios	Stanford	linked data, linked data editors, metadata workflows
@Charlotte Whitt	Index Data	BIBFRAME, Metadata workflows, Inventory
@Alvaro Lopez		
@Massoud AlShareef	KwareTech	Entities, Linked Data, BibFrame
@Martin Scholz	Univ. Library of Erlangen-Nürnberg	Linked Data
@Tiziana Possemato	@Cult/Casalini (Share Family)	Linked data, Entity modeling, BIBFRAME
@Felix Hemme	GBV/VZG	Metadata

A circular logo with the text "Share FAMILY" in white. The word "Share" is larger and positioned above "FAMILY". To the right of the text is a stylized network diagram with several red nodes connected by lines.

First step: How to search an external data source for copy cataloging in FOLIO

- [SVDE-5527](#) Linked Data. Ability to perform a search in a third-party application, starting from Inventory

The screenshot displays the FOLIO Project interface. The top navigation bar includes 'FOLIO Project', 'FOLIO Jira', 'Projects', 'Filters', 'Dashboards', 'Apps', and a 'Create' button. The left sidebar shows a tree view with 'UX Product Software project' expanded, containing 'Reports', 'All work' (selected), 'Checklist for Jira Cloud', and 'Add-ons'. The main content area shows the breadcrumb 'Projects / UX Product / UXPROD-5227' and the title 'Linked Data. Ability to perform a search in a third-party application, starting from Inventory'. Below the title are '+ Add' and '@ Apps' buttons. The 'Descrizione' section includes an 'Overview:' subsection with the text: 'This suggestion is an outcome based on a pilot project work integrating Share-VDE editing linked data records in JCricket, and then pushing the records to Inventory.' The 'Scope:' subsection states: 'The purpose of this feature is to enable users to search for an entity within a third-party application (such as Sinopia, Share-VDE, or Marva) directly from the Inventory interface.' The 'Use Case:' subsection describes: 'While working in Inventory as a cataloger, I want to verify - before creating a new Instance - if the instance already exists in a third-party application's database. In order to do this, then I enter the relevant data into a dedicated search box (designed specifically for this type of search). By calling the appropriate third-party APIs, the system performs the search within the selected third-party application.'

Settings

AgreementsBulk editCheck inCheck outCirculation logCoursesDashboardData exportData importERM comparisons

Settings

Inventory

Application configuration

Settings

Items

Instances, Holdings, Items

Holdings, Items

Integrations

Acquisition units

Agreements

Calendar

Circulation

Courses

Data export

Data import

Developer

eHoldings

eUsage

Finance

GOBI integration

Inventory

Invoices

Licenses

Local KB admin

MARC authority

My profile

Notes

OAI-PMH

Orders

Organizations

Item note types

Loan types

Material types

Fast add

HRID handling

Statistical code types

Statistical codes

URL relationship

Call number types

Z39.50 target profiles

Third application search

+ New

The system should support configuration of one or more external applications

Settings

Agreements

Bulk edit

Check in

Check out

Circulation log

Courses

Dashboard

Data export

Data import

ERM comparisons

Apps

Online

×

New

Name*

URL

Api key

Cancel

Save & close

Enter the data needed to configure the external sources you intend to query

Inventory

AgreementsBulk editCheck inCheck outCirculation logCourses

Search & filter

SearchBrowseExternal search

InstanceHoldingsItem

Keyword (title, contributor, identifier, HRID, UUID)

Search

Reset allAdvanced search

Effective location (item)

Language

Resource Type

Format

Mode of issuance

Nature of content

Staff suppress

Suppress from discovery

Statistical code

Date created

Date updated

Instance status

Source

Tags

Inventory

Enter search criteria to start search

← Choose a filter or enter a search

Configuring even a single third-party application will activate the 'External Search' button on the Inventory screen



Search & filter



Search

Browse

External search

Instance

Holdings

Item

Share-CKB ▾

Share-CKB

Alma

Sinopia

Wikidata

Others...

▼ Resource Type

▼ Format

▼ Mode of issuance

▼ Nature of content

▼ Staff suppress ⓘ

▼ Suppress from discovery

▼ Statistical code

▼ Date created

▼ Date updated

▼ Instance status

▼ Source

▼ Tags

Inventory

Enter search criteria to start search

Configuring multiple third-party applications will activate the 'External Search' button and display a drop-down menu from which you can select the application to perform external searches

← Choose a filter or enter a search



Search & filter

[Search](#)[Browse](#)[External search](#)[Instance](#)[Holdings](#)[Item](#)

Share-CKB

Title

Harry Potter

Search

Reset all

Advanced search

Effective location (item)

Language

Resource Type

Format

Mode of issuance

Nature of content

Staff suppress

Suppress from discovery

Statistical code

Date created

Date updated

Instance status

Source

Inventory

Enter search criteria to start search

The search indexes displayed depend on those provided by the search APIs of the selected application

Choose a filter or enter a search

Inventory

AgreementsBulk editCheck inCheck outCirculation logCoursesDashboardData exportData im

Search & filter

SearchBrowseExternal search

InstanceHoldingsItem

Share-CKB

Title

Harry Potter

Search

Reset allAdvanced search

Effective location (item)

Language

Resource Type

Format

Mode of issuance

Nature of content

Staff suppress

Suppress from discovery

Statistical code

Date created

Date updated

Instance status

Source

Inventory

2 records found

	Title ^	Contributors	Publishers
<input type="checkbox"/>	Harry Potter and the chamber of secrets	ROWLING, J. K., 1965	undefined (1998)
<input type="checkbox"/>	Harry Potter e la pietra filosofale, J.K.Rowling	ROWLING, J. K., 1965 ; Ciuferr, Caterina ; Ciuferr, Caterina	

The search results will be displayed in the Inventory.

The user can select the desired row to view the instance details and confirm that it is the correct one to import from the external source and save it to the Inventory.

Instance • Harry Potter and the chamber of secrets • 1998

Last updated: 5/8/2025

Actions

0

Instance record (text)

Collapse all

Harry Potter and the chamber of secrets

Add holdings

Administrative data

Record last updated: 5/8/2025 7:34 AM

Instance HRID	Source	Cataloged date
?	?	-
Instance status term	Instance status code	Instance status source
-	-	-
status updated 4/3/2025, 11:03 AM		
Mode of issuance		
-		
Statistical code type	Statistical code	
-	-	
Administrative note		
-		

Title data

Resource title

Harry Potter and the chamber of secrets

Alternative title type

Alternative title

Instance • Harry Potter and the chamber of secrets • 1998

sfi0059 • Last updated: 5/8/2025

Actions

0

Index title

Harry Potter and the chamber of secrets

Series statement

-

Preceding titles

Title	Instance HRID	ISBN	ISSN
-	-		

Succeeding titles

Title	Instance HRID	ISBN	ISSN
-	-		

Identifiers

Resource identifier type	Resource identifier
ISBN	978-0-7475-3849-3
ISBN	9780747538493
SVDE cluster ID	I0059

Contributor

Name type	Name	Type	Free text	Primary
Personal name	ROWLING, J. K., 1965	Author	-	Primary

Preview of the resource you want to import

Second step: How to capture data from an external source for copy cataloging in FOLIO

- [SVDE-5228](#) Linked Data. Ability to capture an entity present in a third-party application and save it in the Inventory storage

The screenshot displays the FOLIO Project interface. The top navigation bar includes the FOLIO Project logo, a user profile icon, and tabs for FOLIO Jira, Projects, Filters, Dashboards, Apps, and a Create button. The left sidebar shows the UX Product Software project with options for Reports, All work, Checklist for Jira Cloud, and Add-ons. The main content area shows the breadcrumb 'Projects / UX Product / UXPROD-5228' and the title 'Linked Data. Ability to capture an entity present in a third-party application and save it in the Inventory storage'. Below the title are '+ Add' and '@ Apps' buttons. The 'Descrizione' section contains an 'Overview:' heading and a paragraph: 'This suggestion is an outcome based on a pilot project work integrating Share-VDE editing linked data records in JCricket, and then pushing the records to Inventory.' The 'Scope:' section contains a paragraph: 'The purpose of this feature is to allow users to select a desired entity (previously found in the database of a third-party application such as Sinopia, Share-VDE, or Marva) and save it into the Inventory storage.'

Instance • Harry Potter and the chamber of secrets • 1998
Last updated: 5/8/2025

Instance record (text)
Harry Potter and the chamber of secrets

Administrative data
Record last updated: 5/8/2025 7:34 AM

Instance HRID	Source
?	?

Instance status term	Instance status code
-	-

status updated
4/3/2025, 11:03 AM

Mode of issuance
-

Statistical code type	Statistical code
-	-

Administrative note
-

Title data
Resource title
Harry Potter and the chamber of secrets

Alternative title type	Alternative title
------------------------	-------------------

Inventory

- Edit instance
- View source
- Move items within an instance
- Move holdings/items to another instance
- Overlay source bibliographic record
- Duplicate instance
- Export instance (MARC)
- Set record for deletion
- New order
- View requests
- Import instance (External source)

To import and save the resource in the Inventory after searching in an external source/application

Instance • Harry Potter and the chamber of secrets • 1998

sfi0059

Last updated: 5/8/2025

Actions

0

Instance record (text)

Harry Potter and the chamber of secrets

Add holdings

Administrative data

Record last updated: 5/8/2025 7:34 AM

Instance HRID	Source	Cataloged date
sfi0059	FOLIO	-
Instance status term	Instance status code	Instance status source
-	-	-
status updated 4/3/2025, 11:03 AM		
Mode of issuance		
-		
Statistical code type	Statistical code	
-	-	
Administrative note		
-		

Title data

Resource title

Harry Potter and the chamber of secrets

The resource is saved as an instance in the Inventory, with **FOLIO** as the source. Any updates or modifications to this Inventory instance can only be made within the Inventory and will be reflected exclusively there.

This is the **first step** in a comprehensive copy/shared cataloging flow

Publication

Harry Potter and the chamber of secrets

Created in 1998. Volume. Published in English in 1998 in London.

ISBN: 978-0-7475-3849-3

Identifier: pi0059

Borrow a copy at LEHIGH

Instance • Harry Potter and the chamber of secrets • 1998
sfi0059 • Last updated: 5/8/2025

Actions

Collapse all

Instance record (text)

Harry Potter and the chamber of secrets

Add holdings

Administrative data

Record last updated: 5/8/2025 7:34 AM

Instance HRID	Source	Cataloged date
sfi0059	FOLIO	-
Instance status term	Instance status code	Instance status

The Instance entity identifier will be used as the HRID for the imported Inventory Instance

Third (future) step: How to synchronize data edits in both environments

- [SVDE-5229](#) Linked Data. Updating an Inventory instance should automatically update the third-party application entity as well

The screenshot displays the FOLIO Project web interface. The top navigation bar is dark blue with the FOLIO logo and 'FOLIO Project' text, followed by links for 'FOLIO Jira', 'Projects', 'Filters', 'Dashboards', 'Apps', and a 'Create' button. The left sidebar contains a 'UX Product' section with a 'Software project' icon, and a list of items: 'Reports', 'All work' (highlighted), 'Checklist for Jira Cloud', and 'Add-ons'. The main content area shows the breadcrumb 'Projects / UX Product / UXPROD-5229' and the project title 'Linked Data. Updating an Inventory instance should automatically update the third-party application entity as well'. Below the title are '+ Add' and '@ Apps' buttons. The 'Descrizione' section is empty. The 'Overview:' section contains a paragraph: 'This suggestion is an outcome based on a pilot project work integrating Share-VDE editing linked data records in JCricket, and then pushing the records to Inventory.' The 'Scope:' section contains a paragraph: 'This feature focuses on updating an Inventory instance that was originally created in Inventory and also saved in a third-party application database (such as Sinopia, Share-VDE, or Marva). Whenever an Inventory instance is updated, the corresponding entity in the linked third-party application database must be updated as well.'

ShareVDE

DashboardExploreSimple searchAdvanced searchEditor

"Harry Potter and the chamber of secrets"...

Editor layout ▾UND, ENG, ▾

Provenance data

Record control number

BL-433931280000000

BL

+

sf10059

LEHIGH

+

End of 'record control number' provenance statements

Close

Contributors

Contributor

Publication attributes

Provision activity

Year of publication

Media carrier attributes

IDs

Record control number

BL-433931280000000

sf10059

Instance • Harry Potter and the chamber of secrets • 1998

sf10059 • Last updated: 5/8/2025

Actions ▾

Instance record (text)

Harry Potter and the chamber of secrets

Add holdings

Administrative data

Record last updated: 5/8/2025 7:34 AM

Instance HRID

Source

Cataloged date

sf10059

FOLIO

-

Changes made to the Inventory Instance, with **Inventory as the source of truth**, will be pushed to the Instance entity in the Share CKB from which the Inventory Instance was created. The instance entity in the CKB will then be updated with the data from the Inventory Instance

Consortia Perspectives

Kirsten Leonard, Tina Baich, Jill Morris



The Why - ICOLC's Statements and Reports

- [ICOLC's Statements and Reports Section](#)
- [Joint Statement on the Metadata Rights of Libraries](#) 2022-08-26
 - Metadata that describes library collections is core to libraries' non-profit, educational missions in how they function, both day-to-day and strategically.
 - Restrictions imposed on metadata use, re-use, and sharing across collaborations, platforms, system types, and providers, are impeding libraries' rights and ability to innovate and collaborate to serve their users effectively.

The Why - ICOLC's Statements and Reports

- [Strategies for Collaboration: Opportunities and Challenges to Build the Future We Need](#)

2022-09-15

- “we argue that libraries must empower themselves by reestablishing agency and reasserting control over the technical infrastructure critical to libraries' success.”
- **STRATEGY THREE – Design, Support, and Fund Alternative Solutions Now: (“Alternative solutions” include open source, collaborative, and community-driven initiatives.)**
 - Consider whether open source or community-driven initiatives can (or could one day) meet your needs, and support them with funds, expertise, development time, or other in-kind measures.
 - Experiment with open or non-commercial systems to gain familiarity with them if the library or consortium is not ready to fully embrace open or non-commercial systems or if the systems themselves don't yet meet your needs.
 - Adopt one component of a more comprehensive, modular solution that addresses a specific need well.
 - Provide data or integrations to/with open source or community solutions as an interim step, even if not ready to move away from commercial systems entirely.

The Why - for PALNI

- PALNI needs agility in ILS, partnerships, data use, and business models
- BUT, we lack capacity to build and streamline a future facing metadata pool on our own
- Partners to the rescue!
- Share Family Consortia action plan proposal for the new bibliographic ecosystem - key points for PALNI
 - Ongoing preparation of the revised [Open Data Policy](#) that will better emphasize the following key aspects: Free Availability; Interoperability; Transparency and Reusability; Discoverability and Accessibility; Inclusivity and Innovation.
 - Each single library/institution remains autonomous regarding their local choices, e.g. ILS/LSP and local practices.
- Build the partnership within Share-VDE that aligns with PALNI needs

Benefits to Shared Print



- Right now, it is difficult to aggregate information about monograph retention commitments or to analyze that data without access to a subscription-based tool.
- Share VDE and its support of open bibliographic data offer the opportunity for a community-managed, open monograph retentions registry.
- An open registry would enable
 - libraries to make their retention commitments publicly known outside of local systems
 - any program, library, or person to access data about retained monograph titles without cost
 - cross-program analysis to support enhanced collaboration and collective action
- Compare to CRL's [PAPR](#) and [Collection Comparison Tool](#) for serials retentions

These points draw heavily on the work of the Partnership for Shared Book Collections' Open Data Advisory Group.



Benefits for Resource Sharing & Consortial Discovery & Management



- Difficult to aggregate collection information and present it to users in a shared resource sharing discovery layer that is meaningful and supportive of a positive user experience across multiple institutions;
 - e.g., Clustering of records is difficult – different editions; formats; multi-volume requests; variations in cataloging; and proprietary identifiers prevent efficient use; Challenging to analyze shared holdings; lacking consistent entitlement info for eResources
- ShareVDE represents the potential to link items to entity records that can be consortially managed to support improved user experience with discovery, resource sharing, and use
- Can improve our understanding of what we collectively hold; and how users desire to interact with our collections (E.g., what format they prefer)
- Applications of linked open data allow us to expand upon current standards (e.g., ISO18626) to support transactions with structured, interoperable metadata; and can build upon metadata formats to support machine readable entitlements to support resource sharing use cases more widely when all institutions share the same entity management, e.g., eBook lending across institutions



PALCI
Partnership for Academic Library
Collaboration and Innovation



Share Family Response

Nina Servizzi



Share Family - Linked Data Ecosystem: Principles



CO-OPERATIVE

Developed and driven by libraries, for libraries, the Share Family is a growing international community built on collaboration. Participating institutions play an active role in defining the vision, aims and progress of the Share Family and its tools.

The Share Family opens the door to a flexible, sustainable, interoperable and co-operative approach to resource description, with time, expertise and costs shared across the community for the benefit of all members.



SUSTAINABLE



INTEROPERABLE

By implementing the RDF-based BIBFRAME data model and facilitating interoperability with different data models and data pools, resource description can be transformed into Linked Data, increasing the visibility of research and encouraging greater engagement with library, archive and museum collections.

We strive to encourage open access to data, and support diversity by freely sharing information. We apply and support open metadata policies as part of our commitment to enhancing the discovery of library and cultural heritage resources.



OPEN



FLEXIBLE

Enriched and structured data can be re-used in local and external systems, across library types and ILS/LSPs, enabling each institution to maintain control of its own catalogue data.

The quality of data is guaranteed both through advanced technical processes and through collaborative data modeling, enrichment and sharing, handled collectively by member organizations.



AUTHORITATIVE



Openness means...



OPEN

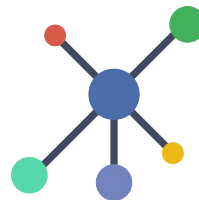
Free Availability

The data is accessible to everyone without any financial, technical, or legal barriers. Open licenses such as Creative Commons or Open Data Commons clearly state permissible uses and encourage unrestricted sharing and innovation.



Interoperability

Published data adheres to widely accepted standards, enabling seamless integration and linking with other datasets. This openness to integration creates a network of data that is more useful and meaningful in a variety of contexts.



Openness means...



OPEN

Transparency and Reusability

Open Linked Data is published in machine-readable formats (e.g., JSON-LD, Turtle) to ensure that both humans and automated systems can use and repurpose it easily.



Discoverability and Accessibility

By adhering to Linked Data principles, Open Linked Data ensures that each data point is uniquely identified by a URI and can be accessed directly on the web, enhancing visibility and discoverability.



Openness means...



OPEN

Inclusivity and Innovation

Openness fosters inclusivity by inviting a wide range of users—researchers, developers, businesses, and the public—to utilize the data for diverse purposes. It also encourages innovation by enabling novel applications, data mashups, and the development of new tools and services.



How to achieve these goals

These goals can be achieved applying the the emerging bibliographic ecosystem based on BIBFRAME and on the Linked Open Data principles.



Governance and long-term sustainability are, among others, crucial aspects addressed by the community that since 2016 progressively takes steps into this direction.



LOD Platform infrastructure components



Cluster Knowledge Base (or Entity Knowledge Base): a collaborative, trustworthy source of quality bibliographic and authority information in linked open data.



Multi-layered entity discovery portal system: it can be configured for individual institutions, for a single consortium / group of institution, for a network of consortia.



JCricket Entity Editor: tool designed for collaboratively creating and curating linked data entities stored in the Cluster Knowledge Base.



APIs backbone for seamless interaction with external systems.



Integration with third parties: for interoperability with ILS/LSP (eg. FOLIO, Alma), BIBFRAME editors (eg. Sinopia, Marva), authority sources (eg. Wikidata, ISNI, QA).

Share Family processes and output

DATA INPUT FROM INSTITUTIONS

MARC21 bib. and holding
MARC21 aut.
UNIMARC
RDF/BIBFRAME
Other formats (eg. FOLIO)

LOD PLATFORM SERVICES

Mapping
URI Enrichment
Reconciliation
Creation of
Linked Data Entities
Conversion to
RDF/BIBFRAME

=

RESULTS

[Data Publication]

- End user discovery portals for each initiative of the Share Family
- Search APIs for data consumption (GraphQL, REST, SPARQL)

+

[Data Distribution]

- API / protocols for third parties integration (eg. local LSPs and data editor such as Wikidata, Sinopia BIBFRAME editor, FOLIO etc.)
- Downloadable datasets (BIBFRAME/RDF, MARC enriched records)

+

[Shared Data Management]

- Editing of Share Family entities with JCricket
- Reuse of Share Family BIBFRAME data in local library systems
- Reuse of Share Family MARC representations in local library systems

+

[Additional Services]

- Authority control in MARC and BIBFRAME-based workflows
- SFI - Share Family Index: registry of entity URIs

Outputs for consortia or single libraries

Linked Data Descriptions and Enriched MARC Records

- The Library catalogue is converted in linked data entities according to BIBFRAME 2.0. The entities are then enriched both with native and persistent SVDE URIs and URIs from external sources.
- MARC records from the original library catalogue are enriched both with native SVDE URIs and URIs from external sources.

Discovery Portal

- Advanced entity discovery system based on BIBFRAME
- Customised UI (skin)
- Integration with local APIs
- Site mapping with additional meta-tagging
- Data conversion to Schema.org

JCricket Entity Editor

- It's a manual collaborative tool designed to manage properties (attributes, relations, and links) of entities in the Cluster Knowledge Base, improving data quality through tasks like creation, merging, and splitting.
- Data can always be traced back to each Institution through the Provenance.
- It can potentially support other workflows and connections with systems external to the Share Family

Authoritative Services

- Innovative solutions that facilitate and improve authority control through automatic and manual procedures.
- Libraries to receive constantly updates on their bibliographic and authority records from authoritative sources.
- Authority Services currently available for MARC-based workflows offer automated URI enrichment, reconciliation and validation of library data.

Member-driven governance model



Share-VDE: supporting the creation, management and discovery
of linked open data for libraries

Executive Summary

Approved by the Share-VDE Advisory Council on December 7th 2022

What is Share-VDE?

The Share Virtual Discovery Environment is driven by libraries, for libraries, in an international collaborative effort to increase the discovery of knowledge to increase collections.

Share-VDE supports members through the linked open data, leveraging the cooperative world to offer a flexible, sustainable and practice.

The Share-VDE partners guide every implementation. Input from the Advisory Share-VDE data model and tools stand up to expertise provides in-depth analysis, studies throughout its lifecycle.

Innovative framework and authoritative Knowledge
Committed to open data sharing and reuse and bibliographic data as linked data, regard



Share Family for Consortia

Executive Summary

The Share Family

Share Family is a global initiative developed and driven by libraries, for libraries, in an international collaborative, consortial effort. It enables the discovery of knowledge to increase user engagement with library and cultural heritage collections.

The Share Family offers library consortia the opportunity to enter into the linked open data environment and make available to their members an extensive range of new-generation bibliographic tools and an innovative resource portal.

Vision, governance and values

Vision: Developed and guided by the international library community, the [Share Family of Initiatives](#) envisions a future where libraries collaboratively define and shape the tools and principles driving bibliographic advancements.

Governance: The direction of Share Family is overseen by the [Share Family Advisory Council](#), comprising representatives from member libraries. Libraries actively participate in policy-making and tool development, sharing expertise, responsibilities, and costs to benefit the entire community and its patrons.

Values: At the core of Share Family's ethos are shared values of cooperation, openness, sustainability, and flexibility. The Share Family commits to developing long-term viability of solutions promoting shared tools and resources. It encourages interaction within an evolving ecosystem of linked data, empowering libraries to adapt and thrive in the digital age.

The direction of Share Family is overseen by the [Share Family Advisory Council](#), comprising representatives from member institutions. Representatives actively participate in policy-making and tool development, sharing expertise, responsibilities, and costs to benefit the entire community and its patrons.

Being a community initiative, the goals and desired outcomes are defined by the participating institutions through active engagement in different [Working Groups](#).

<https://bit.ly/SVDE-Open-Metadata-Policy>

<https://bit.ly/SF-Executive-Summary-Consortia>



Governance: open data policies



Share Family Open Metadata Policy

Approved by the Share Family Advisory Council
on March 15th 2023; amended on April 9th 2025

The Share Family strives to support and invest in open data to freely share information. The community is committed, wherever possible, to share data transformed by its series of Linked Open Data (LOD) processes. The Share Family community has invested great effort to ensure its structured data adhere to the accepted community standards and practices for the library and the open data community.



Share Family data may be used under a CC0 license unless expressly stated otherwise.

The Share Family data pool consists of newly created metadata objects derived from existing data provided by member institutions, enriched and published as RDF, as well as entirely new objects manually created within the system. These data are open and interoperable by humans and machines alike. The Share Family highly encourages their use to promote global dissemination, accessibility, reusability, and discoverability of information resources.

This commitment ensures the widest possible distribution and reuse of our metadata. The Open Data Policy does not cover tools and services developed by the Share Family community nor the original data submitted by member institutions.

Some Share Family Ecosystem tenants may adhere to other open data policies. When using data originating from these tenants, attribution of the source of the metadata or other restrictions as outlined in the tenant's appropriate policy may be required. For example, the PCC Data Pool adheres to CC BY-NC 4.0.

For further information on the tenants' policies, refer to the wiki page [Share Family Linked Data Ecosystem](https://wiki.svde.org/Share-Family-Linked-Data-Ecosystem).

The communities of institutions that form the Share Family and leverage its LOD Platform technology freely decide how they want to reuse the data output from the LOD Platform.

As an example, SVDE adopted an Open Metadata policy <https://bit.ly/ShareFamily-Open-Metadata-Policy>.

This topic strongly resonates within Share Family and SVDE communities → ongoing discussion to revise the SVDE Open Metadata Policy and state the option for open data more explicitly.



Discussion





Thank you!

<https://share-family.org>
<https://wiki.share-family.org>
info@share-family.org
<https://svde.org>