

8<sup>th</sup> Annual Meeting

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# **BIBFRAME Workshop in Europe**

## **Programme**

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September 17-18, 2024  
University of Helsinki  
Finland

Hosted by



**UNIVERSITY OF HELSINKI**

**Organizer Group**

Andreas Andersson, National Library of Sweden  
Michele Casalini, Casalini Libri and Share-VDE (Spokesperson)  
Matias Frosterus, National Library of Finland (2024 Host)  
Reinhold Heuvelmann, German National Library  
Nancy Lorimer, Stanford University Libraries and LD4P  
Hannes Lowagie, Royal Library of Belgium  
Sally H. McCallum, Library of Congress - NDMSO  
Bjørge Vestli, National Library of Norway

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# Tuesday, September 17

University of Helsinki Main Building  
All times are in East European Summer Time (UTC+3)

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08:30 - 09:00

Registration & Coffee

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09:00 - 09:10

Welcome by the Organizer Group

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09:10 - 09:20

Welcome by the Host Library

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## Community Updates

SESSION

CONVENER

**Sally McCallum**

BFEW Organizer Group

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09:20 - 10:00

PRESENTATION

**Sally McCallum**

Library of Congress (LoC), Chief of Network Development and Standards Office

### Library of Congress update

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10:00 - 10:30

PRESENTATION

**Nancy Lorimer**

Stanford University, Associate Director for Metadata Services

### BIBFRAME Shapes: Validating our Approach

*The international BIBFRAME Interoperability Group (BIG), initiated by the Program for Cooperative Cataloging (PCC) in June 2022 has been meeting for almost two years and its efforts are starting to come together. Several key aspects of the BIG 2024 Work Plan include: the refinement of tabular application profiles for BIBFRAME interlingua for monographs and serials; iterative refinement of DCTap/SHACL validation for BIBFRAME shapes; and working towards a data exchange test project for textual monographs based on the profiles and validation tools/processes that have been developed. While there will still be much work remaining, our 2024 goals offer a crucial milestone for sharing production BIBFRAME data around the world. This presentation will serve as an update on the work of BIG since last year, with an emphasis on the aspects mentioned above, and reflect on both work to come and wider considerations that have emerged in BIG for the BIBFRAME community.*

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10:30 - 10:55

## Coffee Break

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10:55 - 11:25

PRESENTATION

### **Kalli Mathios**

Stanford University, Linked Data Community Outreach Librarian

## Planning and Designing: An Update from Blue Core

*Blue Core, a collaboration that envisions a shared linked data environment to bring BIBFRAME cataloging to production, was first introduced at last year's BIBFRAME Workshop in Europe. In this presentation, we will share our progress, and present the opportunities and challenges uncovered during the planning phases of work between 2023 and 2024. More specifically, we will discuss and share our current thinking around the following:*

- *How will this community-operated, shared BIBFRAME data store support linked data to work at scale, allowing libraries to build off of each other's work rather than duplicate effort and expense?*
- *What functionalities and services would need to be built in order to support the participating libraries' cataloging workflows and integrations?*
- *What may the Blue Core community look like, and what levels of participation have been envisioned?*

*We will also present recent developments, ongoing questions, and look to the community for feedback.*

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11:25 - 12:05

PRESENTATION

### **Tiziana Possemato**

@Cult, Founding partner & Director

### **Serena Cericola**

Casalini Libri, R&D assistant

## Share Family: advancements in linked data collaboration

*The Share Family is an international library-driven initiative dedicated to implementing linked data and to supporting consortia and individual libraries with the enhancement of their workflows and services. The concrete focus of the initiative, including Share-VDE and other projects, is on facilitating the creation, management, and discovery of linked open data through advanced tools that connect the bibliographic catalogs and authority files of libraries and present their data in dynamic formats, enriched with reliable and up-to-date sources of information, constantly available for manual or machine-to-machine consumption.*

*This is achieved through a collaborative effort and a flexible, sustainable approach for enabling knowledge discovery. Among the latest advancements, we will showcase JCricket, the collaborative tool for editing linked data in the environments shared by all participating Share Family institutions, allowing library members to check, edit, and enhance data, providing a level of precision and authoritativeness that cannot be achieved through automated processes alone. JCricket enables librarians to refine and enhance the quality of the data output of MARC to BIBFRAME transformation. By facilitating human intervention, it acknowledges the inherent limitations of automated processes and harnesses the expertise of librarians to elevate the accuracy and richness of the shared knowledge base. Interoperability is at the core of the Share Family technology; therefore, use cases are being experimented to adopt JCricket and Share Family tools not only within their native environment but also in local libraries' ILS/LSP (e.g., FOLIO, Alma) and in other linked data systems (e.g., LD4P Sinopia) to share and cooperatively edit linked data resources across different environments. The data model underlying this complex infrastructure is the Share-VDE Ontology that is an extension to BIBFRAME devised by Share Family members and whose advancements will also be presented.*

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**12:05 - 12:35**

PRESENTATION

**Andreas Andersson**

National Library of Sweden, Metadata Specialist

## Normalising and coordinating types in bibliographic data

*The MARC21 format, and by extension BIBFRAME, includes numerous overlapping categories used to define the general type of the source described, be it type of record, medium, content type or genre/form terms. To understand what a catalogued resource is, different types, both on an abstract and on a highly specific level, usually need to be combined like a puzzle. When cataloguing and storing bibliographic descriptions as linked data, the commonly used RDF namespace property type - a seemingly simple type not present in MARC - offers an opportunity to address this issue. Instead of equating rdf:type to types derived from MARC, the National Library of Sweden is currently looking to use rdf:type to coordinate most existing categories, while at the same time modifying the types to improve their specificity and hierarchical relationships. With the vocabulary extension set to be finalised, this talk offers thoughts on how to define the significant identity of a resource, functional levels of nuance and specificity, and the relation between Work and Instance types.*

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**12:35 - 13:45**

## Break for Lunch

Delegates are free to make their own lunch arrangements

# From theory to practice

SESSION

CONVENER

**Nancy Lorimer**

BFWE Organizer Group

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**13:45 - 14:25**

PRESENTATION

**Renate Behrens**

RSC, Chair

## Report from RDA Steering Committee

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**14:25 - 14:55**

PRESENTATION

**Matias Frosterus**

National Library of Finland, Information Systems Manager

## Expressions and Aggregates in BIBFRAME

*Arguably the biggest differences between RDA and BIBFRAME are their approaches to the WEMI model (work, expression, manifestation, item) and to aggregates. There have been various solutions to these discrepancies, e.g., bf:Hub and the Share-VDE Opus but they do not perfectly represent the RDA approach. We have tackled this issue in the Finnish BIBFRAME adaptation by splitting the bf:Work into work and expression, which required the division of subclasses and properties of bf:Work accordingly. In our initial testing, the approach seems robust and the conversion back to regular BIBFRAME is simple. Additionally, we have modelled the RDA aggregates as faithfully as possible to the same data model. In this presentation, we go over our solution as well as the implications of adopting it.*

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**14:55 - 15:25**

PRESENTATION

**Richard Wallis**

Data Liberate, Founder

## Building a Semantic Knowledge Graph at National Library Board Singapore

*In December 2022 the National Library Board Singapore (NLB) launched a continuously updated, Linked Data based, Semantic Knowledge Graph (KG) to manage and aggregate resources from their library, authority, National Archives, and content management systems. The design of the data, and operational architecture of the KG, based upon the BIBFRAME and Schema.org vocabularies, took a unique approach to the management and cataloguing of data about library resources. It did not seek to change or replace established cataloging systems or processes, to facilitate the introduction of a linked data KG. These remain unchanged in the source systems. The creation of linked data entities and descriptions from source, resides in the daily import pipeline processes of the KG. This results in the dual benefits of not requiring the introduction of new end to end systems, or the disruption to current cataloging practices. It also separates the concerns of linked data entity management into the KG system. Developments have continued since the successful launch. Utilising the data and functionality from the KG for sharing across the web and embedding in other NLB hosted services. Additionally, processes have been implemented to use external authority services, such as the Library of Congress Name Authority File, to enrich and improve the data quality of KG entities. Richard will review the architecture, its benefits and challenges plus advancements made since the initial launch of the system.*

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**15:25 - 15:50**

## Coffee Break

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**15:50 - 16:20**

PRESENTATION

**Trevor Hough**

University of Leeds, Metadata & Discovery Coordinator

**Kim Taylor**

University of Leeds, Metadata & Discovery Manager

## Adventures in BIBFRAME: Cataloguing Rare Books Using Sinopia at the University of Leeds

Metadata staff at the University of Leeds joined the Ex Libris Linked Open Data Focus Group in September 2023 to trial the Sinopia editor for creating BIBFRAME records and bringing them into the Alma and Primo Sandbox environment. The group's work is helping Ex Libris to develop and refine Alma workflows compatible with BIBFRAME for future release in the live system. The group also offers input to Ex Libris' long-term plan for developing Linked Data within Alma. The team chose to work with a collection of rare print monographs gifted to the University several years ago, primarily pattern books and trade catalogues from the 18th and 19th centuries. This presentation will examine the unique challenges of working with such materials in the context of BIBFRAME, with particular focus on recording and display of copy-specific information as well as customization of Sinopia templates.

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**16:20 - 16:50**

## Presentation

### **Gwenny Vlaemynck**

Cultuurconnect, Innovation Manager

### **Hannelore Baudewyn**

Cultuurconnect, Product Owner Open Vlacc

### **Lynn Van Kerckhove**

Cultuurconnect, Domain expert IT

### **Guy Cools**

Cultuurconnect, Metadata specialist

## Toward a new way of cataloging: investigating the feasibility of implementing an entity-relationship model in Flemish central cataloging

*Open Vlacc is a central bibliographic database describing all materials relevant to a public library collection in Flanders. The description of this data is done by the 6 largest public libraries of Flanders and Brussels in cooperation with Cultuurconnect. Since 2007, Open Vlacc data has been managed in Aleph, a cataloging solution offered by Ex Libris. However, Aleph is a product that won't be supported much longer, so we had to look for an alternative solution. We took this as an opportunity to see if we could change the way we do cataloging. We were looking for a cataloging solution where it is possible to create and manage bibliographic descriptions within an entity-relationship model with a data format suitable for exchange within the semantic web. We started with a market research and came to the conclusion that there are hardly any commercial companies that can answer our question. We did learn about 3 systems that piqued our interest: Marva, Sinopia and Libris XL. We started looking into these tools. Soon we reached our limits and we noticed that it was not easy to estimate how feasible it is to use these systems in a Flemish context and to develop them into fully-fledged systems for central cataloging. Therefore, we decided - in cooperation with an external developer - to set up a pilot in which we made an analysis of these 3 systems with the ambition of eventually choosing one system and doing a short further development on this, followed by a feasibility analysis. This pilot run until July 2024.*

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**16:50 - 17:00**

## Closing remarks of day 1

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**17:00 - 18:00**

## Optional visit to NLF Library

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**18:15 - 20:00**

## Evening party at the National Library of Finland

# Wednesday, September 18

University of Helsinki Main Building  
All times are in East European Summer Time (UTC+3)

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08:30 - 09:00

## Registration & Coffee

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09:00 - 09:45

ROUNDTABLE

**Coordinated by Sally McCallum, Kevin Ford, Jodi Williamschen**

## BIBFRAME editors in the future

*The community currently has 3 operational editors that catalogers can use to create BIBFRAME descriptions: Sinopia - developed by Stanford for the LD4 projects and used with LD4 BIBFRAME systems. Marva - developed by the Library of Congress for its catalogers and used with the Library's BIBFRAME system. JCricket - developed by Casalini and @cult for use by catalogers in the Share-VDE BIBFRAME systems. Also under development by OCLC is a BIBFRAME editor that will work with Worldcat entities and by Ebsco a linked data editor for use with the Ebsco Linked Data systems. The operational editors have been in use for several years, and exhibit different approaches to the BIBFRAME editing environment. However, they were developed with catalogers who have refined MARC editing for 30+ years and the vision of these catalogers was therefore influenced by the flatness and heavy coding of the MARC data. But with BIBFRAME we are entering a new era. The data is not flat and codes are little used. This is because of the revolution in cataloging rules that was ushered in by the FRBR analysis in the 1990s and enshrined in new cataloging rules in 2010. "Not flat" also resonates with RDF which is the platform developed for the internet on which BIBFRAME is built. URIs expand our data exponentially in BIBFRAME. So in this session we want to open up our vision to look at what an editor in the future might look like, if not strongly influenced by the editors of the past. Questions for consideration by the panel and by the workshop attendees:*

- What are some new ideas for editors that we are seeing in those developed so far?
- How do we stay simple in the complex, linked environment?
- How do new data models for instances, hubs, and works change our workflows?
- Are there new input innovations that might make creation faster, or more accurate?
- How can connectivity be established efficiently?
- Will identifiers be proliferated and can they be controlled/related?
- Are there aspects of AI that might be used?

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09:45 - 10:30

ROUNDTABLE

**Coordinated by Sally McCallum, Kevin Ford, Jodi Williamschen**

## The Era of Dual Format Environments: BIBFRAME and MARC

*Our intense cataloging exchange environment is a time and money saver for libraries: it cannot be interrupted. Yet some institutions will be moving or have already moved major parts of their environment to BIBFRAME from MARC, so before all systems "catch up" with BIBFRAME we will have a mixed, interdependent environment and data must round trip between the systems. As institutions transform complex bibliographic systems based on the MARC format, for some 50 years now, to a new environment of BIBFRAME, RDF, and RDA it has become increasingly clear that (1) the two environments – MARC and BIBFRAME – will coexist for sometime, and (2) MARC usage can and should be adjusted to better enable coexistence. We need a more "modern MARC," one with less redundancy and duplication. MARC has a long history and also a long history of supporting changing cataloging practices. The introduction of new cataloging rules (RDA) and models for bibliographic data have produced many changes in the format. These changes are reflective of the linked data internet environment in which BIBFRAME lives.*



*This modernized MARC will help bridge the differences between the formats and better enable round tripping. In this session let's discuss the things we can leave behind in traditional MARC and more recent changes we can embrace that will make round tripping more lossless and easier.*

*Some areas to look at:*

- Can we move to less coded data in the 00X fields in favor of the more flexible 3XX fields?
  - Can we tolerate more non-Latin script data in more languages?
  - Where is ISBD punctuation really needed and why?
  - Can we take a hard look at duplication- 260/264, 490/800, 007/3XX, \$1 URIs and \$2 source codes, others?
  - How much transcription is necessary when it duplicates controlled data?
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**10:30 - 11:00**

## Coffee Break

# **BIBFRAME Environments (Part 1)**

SESSION

CONVENER

**Michele Casalini**

BFEW Organizer Group

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**11:00 - 11:30**

PRESENTATION

**Jeff Mixter**

OCLC, Senior Product Manager Metadata and Digital Services

## **Working with linked data at scale in library workflows**

*Continuing the conversation from BIBFRAME in Europe 2023, this presentation will provide an update about OCLC's work on meeting libraries where they are to ease the burden of migrating to linked data. This presentation will provide update on that work highlighting the tools, services, and datasets OCLC has built to support libraries' success in adopting productionized linked data solutions. To start, we will provide an overview of the work done to bridge MARC and linked data by adding WorldCat Entity URIs to WorldCat MARC data. We will discuss and demo the Meridian application for editing data in the WorldCat Entities knowledge graph and connecting it to bibliographic metadata. And finally, we will provide an update on our BIBFRAME work focusing on services to ingest and export BIBFRAME and provide a demo of our BIBFRAME editor, highlighting how it interacts with other OCLC services and datasets such as WorldCat Entities, VIAF, DDC, and FAST.*

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**11:30 - 12:00**

PRESENTATION

**Adina Marciano**

Ex Libris, Product Manager

**Margarita Perez Martinez**

University of Miami, Cataloging & Metadata Librarian and Law School Institutional Repository Manager

## Unlocking BIBFRAME: Practical Insights for Alma and Primo

*The adoption of BIBFRAME promises transformative enhancements in metadata management and discovery within library systems. In this session, we will delve into the practical aspects of implementing BIBFRAME in Alma and Primo. Drawing from our experiences with the Linked Open Data focus group, we'll discuss challenges, integration strategies, and the advantages of BIBFRAME. Let's navigate the intersection of traditional MARC21 records and the dynamic BIBFRAME landscape.*

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**12:00 - 12:30**

PRESENTATION

**Sebastian Hammer**

Index Data, President

**Tiziana Possemato**

@Cult, Founding partner & Director

## Practical use cases for shared bibliographic infrastructure

*The sharing of bibliographic data is an essential part of the entire apparatus of library operations, including collections management, acquisitions, cataloging, discovery, resource sharing, and more. In the MARC universe, we have learned to live with an ad hoc hodgepodge of technologies and informal infrastructure, but something new must take its place for BIBFRAME to make sense. In this talk, we will explore some open, collaborative infrastructure projects and their intersections with the bibliographic universe. We will check in on the integration between the Share Family platform and the FOLIO LSP, and discuss the metadata needs of other initiatives to reflect on the functional requirements for the future ecosystem.*

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**12:30 - 13:30**

## Break for Lunch

Delegates are free to make their own lunch arrangement

# BIBFRAME Environments (Part 2)

SESSION

CONVENER

**Matias Frosterus**

BFEW Organizer Group

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**13:30 - 14:00**

## Presentation

**Magdalena Olofsson**

Axiell, Product Manager

**Emma Tennevall**

Metadata Specialist

## Linked Data LMS: Experiences from Production

*Axiell's Library Services Platform, Quria, is a linked data native library system that has been in production since 2017.*

*Today, over 200 public, school, and special libraries in Sweden, Norway, Finland, Germany, and Switzerland use Quria, and the community continues to grow. Quria's linked data format (LDQ) is data-driven and continuously adapted to meet our customers' needs. As an international supplier, we encounter various national requirements and standards that must be compatible with LDQ. Our presentation will cover several aspects and experiences of the linked data library system:*

*- Conversions from MARC to Linked Data: Quria uses MARC21 as an exchange format for importing and exporting traditional catalogue records. Imported MARC records, catalogued according to AACR2 or RDA, are automatically transformed into linked data and RDA.*

*- Clustering Entities: We will share our experiences in clustering our customers' data into entities. The aggregation of works and other entities is achieved through an automated and complex match and merge routine.*

*- Presenting, Searching, and Circulating in Linked Data LMS: The main purpose of an LMS for public libraries is to manage library resources, most of which are still physical items that need to be found and circulated. This makes our implementation of linked data sometimes more functional than theoretical. We will share our best practices for presenting library collections using RDA entities and linked data.*

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**14:00 - 14:30**

PRESENTATION

**Claudio Forziati**

University of Naples Federico II, Librarian

## The UNIMARC-BIBFRAME mapping in SHARE Catalogue: an evolving path

*The SHARE Catalogue initiative recently launched the UNIMARC-BIBFRAME 2.0 mapping and its transposition into a dedicated Wikibase instance. This strand of the initiative, along with the institutional evolution of SHARE Catalogue, is in line with the spirit of the collaborative practices promoted by the Share Family. The work is still ongoing, and new perspectives are expected to arise from the initiative, particularly in terms of its potential as a strategic tool for users and for the institutions involved.*

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**14:30 - 14:45**

LIGHTNING TALK

**Mihwa Lee**

Kongju National University

## KORMARC data mapping for BIBFRAME transforming

*KORMARC, which stand for Korean MARC, is an encoding format and standard for creating bibliographic record. KORMARC is very similar to MARC21 but there are something different in several tags, subfields and indicators. MARC will be the important encoding format for interoperability of cataloging until MARC record would be changed to BIBFRAME totally. Now there are some national library centered projects to achieving linked data using BIBFRAME ontology in Korea because MARC has the limitation in the linked data. To construct BIBFRAME, there are several stages. Among them, first is mapping KORMARC TO BIBFRAME classes and properties and converter. Therefore, the presentation proposes the mapping between KORMARC to BIBFRAME property and classes. Especially, mapping tag 245, tag 700, and 00X, 0XX of KORMARC should be modified to transform to BIBFRAME with differentiating MARC21 TO BIBFRAME. The scope is to contribute to transform BIBFRAME data from KORMARC and provide solution for other countries having these same challenges.*

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**14:45 - 15:15**

Coffee Break

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**15:15 - 16:45**

ROUNDTABLE

CONVENER

**Matias Frosterus**

**Kevin Ford**

Library of Congress (LoC), Librarian, Linked Data Specialist

**Niklas Lindström**

National Library of Sweden, System developer

**Nancy Lorimer**

Stanford University, Associate Director for Metadata Services

**Tiziana Possemato**

@Cult, Founding partner & Director

**Philip Schreur**

Stanford University, Deputy University Librarian

## Insights into the practicalities of working with BIBFRAME

*An interactive roundtable discussion with a panel of experts offering insight into working with BIBFRAME as well as outlining some of the most interesting challenges the adoption of BIBFRAME is facing. We welcome the questions and comments from all the participants and can also use this opportunity to return to some of the themes explored during the workshop.*

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**16:45 - 17:00**

Closing remarks