Expanding the Foundation for RDA as Linked Data

Mapping MARC21 Bibliographic to LRM/RDA/RDF

IGeLU 2022 Hybrid Conference and Developers' Day
September 13, 2022

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Remarks and perspectives - Laura Akerman

Why is this project of special interest to IGELU?

- If a goal for many libraries is to eventually retire MARC as a data format, mapping from MARC is essential!

- The IGeLU/ELUNA Linked Open Data Community of Practice Working Group has heard from a number of customers who want to see mapping from MARC to RDA, as an alternative to BIBFRAME, and in support of the RDA and LRM international standards for bibliographic description.

- Ex Libris Alma provides just a skeletal "RDF/RDA" mapping/conversion API, providing just a few fields for Work, Expression and Manifestation. LOD CoP WG is keenly interested in working with the community to support/advocate for a full, up to date implementation of RDA/RDF in Ex Libris products.

What we mean by "skeletal":

```
<rdf:RDF xmlns:madsrdf="http://www.loc.gov/mads/rdf/v1#" xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:rdac="http://rdaregistry.info/Elements/c/"
xmlns:rdaw="http://rdaregistry.info/Elements/w/" xmlns:rdae="http://rdaregistry.info/Elements/e/"
xmlns:rdam="http://rdaregistry.info/Elements/m/" xmlns:rdai="http://rdaregistry.info/Elements/i/" xmlns:rdaa="http://rdaregistry.info/Elements/a/">

    <rdac:Work rdf:about="https://open-na.hosted.exlibrisgroup.com/alma/01GALI_EMORY/rda/entity/work/9045546987910867035">
        <rdaw:titleOfTheWork>Filling the leadership pipeline</rdaw:titleOfTheWork>
        <rdaw:SubjectRelationshipOf rdf:resource="http://id.loc.gov/authorities/subjects/sh85080336"/>
        <rdaw:SubjectRelationshipOf rdf:resource="http://id.loc.gov/authorities/subjects/sh85075480"/>
        <rdaw:creator rdf:resource="http://id.loc.gov/authorities/names/n2005073064"/>
        <rdaw:manifestationOfWork
        rdf:resource="https://open-na.hosted.exlibrisgroup.com/alma/01GALI_EMORY/rda/entity/manifestation/9936504278902486"/>
        <rdaw:manifestationOfWork
        rdf:resource="https://open-na.hosted.exlibrisgroup.com/alma/01GALI_EMORY/rda/entity/manifestation/9937426093902486"/>
    </rdac:Work>
</rdf:RDF>
```

Why I am participating in this project:

- Fun! (collaborative, challenging, knotty, nit-picky) but, requires time.

- Changes have recently been made to RDA and its vocabularies, and continue to be made. This adds to the fun and learning.

- University of Washington's group are brave, great people, and welcoming of collaborators willing to be involved. The staff and collaborators, particularly international contributors, are very knowledgeable and contribute varied perspectives. I feel honored and a bit awed to be a part of this.

- The project has evolved and grown since I joined in January, and is poised to be productive after a lot of initial issue-identification discussions. I think we can do it!

IGELU 2022 - Other Linked Open Data presentations

Meetings later in this conference you may want on your schedule!

Linked Open Data

Wednesday, September 14, 2022 at 10:40 AM–11:10 AM London time
7. Dame Shirley Bassey Studio
PRESENTER Itai Veltzman, Ex Libris

Linked Open Data Community of Practice Working Group Business Meeting

Thursday, September 15, 2022 at 2:10 PM–2:40 PM London time
6. Rowe Beddoe Studio
PRESENTER Xiaoli Li, UC Davis Library

MARC21 Bibliographic to LRM/RDA/RDF Mapping Project

Background and Goals
Crystal Clements

- LRM/RDA/RDF work at the University of Washington Libraries
- RDA in RDA : An Idea Worth Testing
- Converting Legacy MARC21 Bibliographic Metadata
- MARC21 Bibliographic to LRM/RDA/RDF Mapping and Conversion Project:
  - Project Roster
  - Project Goals

LRM/RDA/RDF Work at the University of Washington Libraries

Joint BIBFRAME/RDA explorations 2012-present

Early adopters of RDA in MARC21

Analyzed and commented on BIBFRAME 1.0

LRM/RDA/RDF Input Form and Sinopia Application Profiles

RDA in RDA: An Idea Worth Testing

Implementation of RDA in BIBFRAME is lossy due to incompatibility between data models

      Lack of Expression class

      Many RDA entity relationships are not available

Because of its granularity, RDA can be used to output other formats as needed

Base data on the richest data, derivatives should follow the dumb-down principle

      Good BIBFRAME can be derived from RDA, but good RDA cannot be derived from BIBFRAME

RDA is widely implemented, yet the ontology is overlooked

Data of record expressed as LRM/RDA/RDF seems ideal

Converting Legacy MARC21 Bibliographic Metadata

MARC21 is inadequate for entity-based/linked data descriptions:

    Single records are used to describe many entities

    Few identifiers are used, and are ambiguous

Smaller, ephemeral projects have tested cataloging natively in LRM/RDA/RDF, and converting those description sets to BIBFRAME

Most of our current data of record for bibliographic description is in MARC21

Conversion of legacy data will be necessary when a move to LRM/RDA/RDF takes place, and a large dataset will be useful in preparation for implementation

MARC21 to LRM/RDA/RDF Mapping and Conversion

MARC21 and LRM/RDA/RDF are both (necessarily) very complex–we needed collaborators

Laura Akerman (Emory University), Mapping contributor

Sita Bhagwandin (KB/National Library of the Netherlands), Mapping contributor

Gordon Dunsire (IFLA), Metadata consultant

Sofia Zapounidou (National Library of Greece), Mapping contributor

Theo Gerontakos, Mapping contributor, Conversion contributor, Project supervisor

Crystal Clements, Mapping contributor, Project manager

Adam Schiff, Mapping contributor

Jian Lee, Mapping contributor

Junghae Lee, Mapping contributor

Zhuo Pan, Mapping contributor, Conversion contributor

Melissa Morgan, Metadata consultant, Mapping contributor

Benjamin Riesenberg, Metadata consultant

Cate Gerhart, MARC21 mapping consultant

MARC21 to LRM/RDA/RDF Mapping and Conversion

Project goals:

Create a robust mapping between MARC21 and LRM/RDA/RDF

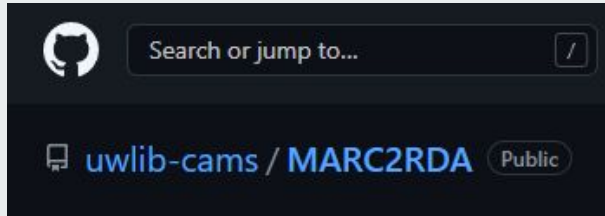Create an XSLT-based transformation tool to convert large quantities of MARC21 metadata to LRM/RDA/RDF

Openly publish the mapping and transformation to encourage widespread use

Begin process for official adoption by international groups

Live Tour

Jian Lee

https://github.com/uwlib-cams/MARC2RDA

[GitHub Repository](#)

- ○ Wiki
- ○ Code
- ○ Issues
- ○ Discussions
- ○ Project page

[Google Sheets Working Documents](#)

Q&A

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