

Three Linked Data Choices for Libraries Beyond MARC

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Data Liberate

Independent Consultant, Evangelist & Founder

40+ Years – Computing

28+ Years – Cultural Heritage technology

13+ Years – Semantic Web & Linked Data

W3C Community Groups:

- **Schema Bib Extend (Chair) - Bibliographic data**
- Schema Archetypes (Chair) - Archives
- Financial Industry Business Ontology – fibo.schema.org
- Tourism Structured Web Data (Co-Chair)
- Schema Course Extension
- Schema IoT Community
- Educational & Occupational Credentials in Schema.org

Works With:

- **Google – Schema.org vocabulary, site, extensions, documentation and community**
- **OCLC – Global library cooperative**
- **FIBO – Financial Industry Business Ontology Group**
- **Various Clients – Implementing/understanding Schema.org**
British Library – Stanford University – Europeana – NLB Singapore



Library Linked Data ... where are we now?

- Lots of great individual linked data initiatives
(interoperability between them a question)
- **Bibframe 2.0** – ready for wider standardized adoption
- **Schema.org** – the de facto structured data standard for the web
(30% domains using it)
- Potential for adding web links to MARC
(**Linky MARC**)

Library Linked Data ... what is the way forward?

What do I
need to
implement?

What do I
ask my
vendor for?



?

QUIT

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Who Wants to be a Linked Data Library

15	\$1 MILLION
14	\$500,000
13	\$250,000
12	\$125,000
11	\$64,000
10	\$32,000
9	\$16,000
8	\$8,000
7	\$4,000
6	\$2,000
5	\$1,000
4	\$500
3	\$300
2	\$200
1	\$100

50:50



What are my Library Linked Data Options?

◆ A: BIBFRAME 2.0

◆ B: Schema.org

◆ C: Linky MARC

◆ D: Do nothing

BIBFRAME 2.0

- Matured from 1.0 (and variations)
- Not perfect but ‘good enough’ – continuing to develop
- MARC Conversion specifications
- Open source MARC Conversion software.
- Good basis for standardized Linked Data (RDF) interchange
- Backed by Library of Congress - Supported by others
- Introduces potential for entity-based cataloguing

BIBFRAME 2.0

- A Library vocabulary/ontology/standard
- Not recognized outside of library and associated organisations
- No real use for increasing visibility & discoverability on the general web



Schema.org

- De facto structured web data standard vocabulary
- Has bibliographic extension
- Shared by embedding in normal page HTML
(No special data endpoint required)
- Already found in 30% of web
- Requested by Google and others
- Acknowledged by Google to influence indexing
- Used to populate Search Engine Knowledge Graphs
- Driving Semantic Search, Voice Search, Local Search, etc.
- Not detailed/specific enough for library cataloguing, etc.

Linky MARC

- Adding http URIs to \$0 & \$1 MARC subfields
- Recommendation of the *PCC Task Group on URIs in MARC*
- Consistent approach to include links to entities such as people, organisations, etc. (authorities)
- **Not** Linked Data – but a way to preserve identified entity URIs for the future

Do nothing

- Wait for system suppliers to catch up
- Need to keep aware of developments

Who Wants to be a Linked Data Library

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- D: Do nothing

What are the Challenges?

(for the technical community)

BIBFRAME

- Consistent approach
- Solve the entity duplication problem in a widely adoptable way
- Concentrate on adoption and interchange
- Get vendor buy-in
- Acknowledge limitations for web discovery & discoverability

Schema.org

- Reference mapping from Bibframe
- Library implementation examples – sitemaps etc.

Linky MARC

- Encourage as an interim solution

bibframe2schema.org

- Open project / community
- Launching *now*
- To agree and promote:
 - Reference mapping from BIBFRAME 2.0 to Schema.org
 - Reference enrichment / conversion scripts
- Interested ?

Email / tweet me:

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#bibframe2schema

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