Ontology Assessment and Extension
a case study on LD4L and BIBFRAME

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LD4L Labs & LD4P

LD4L Labs: "helping libraries use linked data to improve the exchange and understanding of information about scholarly resources"

LD4P: "to begin the transition of technical services production workflows to ones based in Linked Open Data"

https://www.ld4l.org/
LD4L 2014-2016
Ontology Outputs

Created Ontology
https://www.ld4l.org/ontology/

Produced RDF
https://search.ld4l.org/
LD4L 2014-2016
Ontology Principles

Single query path
Appropriate Properties Types
External Ontology Reuse & Alignment

https://www.ld4l.org/
BF 2.0 Assessment

LD4L (2014-2016) Ontology

BIBFRAME v2 released early 2016

https://www.ld4l.org/
BF 2.0 Assessment

Clear cut cases for reuse remain

Different patterns, but only one preferred

Different preferred patterns for different circumstances

Happily use BF 2.0

Align to external models

https://www.ld4l.org/
Aligning to External Ontologies

Are there proven ontologies/fragments?
What external data will likely be used?
How is that data modeled?
Who do you want to consume your data?

https://www.ld4l.org/
Aligning to External Ontologies

Don’t change meaning of external classes/properties

\texttt{owl:sameAs} with coordination/permission

Otherwise: \texttt{rdfs:subClassOf} or \texttt{rdfs:subPropertyOf}, etc.

Be careful aligning between \texttt{rdfs} and \texttt{owl} ontologies

All... while remaining not overly committed

https://www.ld4l.org/
Aligning to External Ontologies

\[ bf:\text{Agent} \text{ rdfs:subClassOf foaf:Agent. } \]

Entails every \( bf:\text{Agent} \) is a \( foaf:\text{Agent} \).
http://lov.okfn.org/dataset/lov/vocabs/bf
Ontology Extensions

Art Objects
Cartographic
Moving Image
Performed Music
Rare Materials

https://wiki.duraspace.org/x/VQJxV

https://www.ld4l.org/
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https://www.ld4l.org/
Ontology Outputs
(Selection - forthcoming)

BIBFRAME v.2 Assessment
Ontology Pattern Documents
Metadata Application Profile
Target Ontology
MARC-2-Target Ontology Mapping

https://www.ld4l.org/
Acknowledgements
Many Colleagues at:
Columbia, Cornell, Harvard, Princeton & Stanford
as well as the Library of Congress & many other institutions

Far too many to list individually; particular credit to:
Christina Harlow (Cornell University)
Rebecca Younes (Cornell University)

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