Introduction to the Semantic Web and Linked Data For the BIBFRAME Pilot 2.0
Prerequisite and Optional Resources

1. **Linked data general background**

These two resources are a general introduction to linked data.

The first resource is a 16-minute "TED" Talk (Technology, Entertainment, and Design) video by Tim Berners-Lee, the inventor of the World Wide Web (WWW). In the 2009 video, Berners-Lee talks about a web for open, linked data that can reframe the way we use the WWW.

Tim Berners-Lee: The next web (16:23)

The second resource is a 12-page introduction to linked data, by Thomas Meehan, Head of Current Cataloguing, University College London. The 2014 paper is written with catalogers in mind, and shows the power of linked data in describing bibliographic resources – the work of catalogers.

Thomas Meehan, Head of Current Cataloguing, University College London Introduction to linked data (PDF; 1.23MB; 12 pages)

2. **RDF (Resource Description Framework) data model [more details on triples, URIs/IRIs, ontologies & vocabularies]**

These two resources are a more detailed look at the building blocks of linked data.

The first resource is a training document prepared by the Library of Congress' Cooperative and Instructional Programs Division in 2017, when new Library of Congress catalogers joined the BIBFRAME Pilot. It reinforces the three general resources in Section 1, above.

COIN Division Library of Congress: Linked Data and the Semantic Web (PDF; 946 KB; 25 slides)

The second resource is a 14-minute YouTube video by OCLC on linked data for libraries. The 2012 video has a specific concentration on the benefits of linked data for libraries.

OCLC. Linked Data for Libraries (14:13)

3. **Identifiers in linked data**

The Library of Congress is a leader in BIBFRAME development and linked data experimentation. These two resources are by Library of Congress staff members.

The first resource is a 2019 blog post on Wikidata integration at the Library of Congress.

Matt Miller. Integrating Wikidata at the Library of Congress

For more information on Wikidata, see Section 5. Below.

The second resource discusses the LC/NACO Authority File (LCNAF, or NAF), and how it is accessed through the Library of Congress Linked Data Service (id.loc.gov) in the BIBFRAME Editor as a source of names for descriptive and subject access points.

Judith P. Cannan, Paul Frank & Les Hawkins (2019) LC/NACO Authority File in the Library of Congress BIBFRAME Pilots, Journal of Library Metadata, 19:1-2, 39-51, DOI: 10.1080/19386389.2019.1589693

4. BIBFRAME

BIBFRAME provides a foundation for the future of bibliographic description, both on the WWW, and in the broader networked world that is grounded in linked data techniques. These two papers are an overview of BIBFRAME and its potential to remodel and enhance the way library metadata is shared and discovered.

The first resource is a 2014 paper in support of BIBFRAME.

BIBFRAME: Why? What? Who? (Word; 628 KB; 9 pages)

The second resource is a 2018 paper that gives a historical perspective of BIBFRAME development.

The Evolution of BIBFRAME: from MARC Surrogate to Web Conformant Data Model (PDF; 271 KB; 10 pages)

5. Wikidata

Wikidata is a "collaboratively edited knowledge base hosted by the Wikimedia Foundation. It is a common source of open data that Wikimedia projects such as Wikipedia can use, and anyone else, under a public domain license." (quoted from: https://en.wikipedia.org/wiki/Wikidata).

In addition, Wikidata is being used as an alternate source of name and subject data for bibliographic description. Wikidata's "collaboratively edited" nature lowers the barrier to using the knowledge base for providing access in bibliographic descriptions. Although other knowledge bases can be used in similar ways, understanding Wikidata and how it works is an ideal start to understanding how the concept of identity management is overtaking the traditional practice of using curated "silos" of information for bibliographic description.

Wikidata Tours: tutorials for new users

6. Optional

These additional resources provide more information on the BIBFRAME model and its use of linked data and RDF to innovate traditional library metadata creation.

BIBFRAME Webcasts & presentations