

Assignment #7 - Data Format - Analyze

Data Format:

BIBFRAME

<https://www.loc.gov/bibframe/>

Descriptive Points:

- **When was it created / published and by whom?**

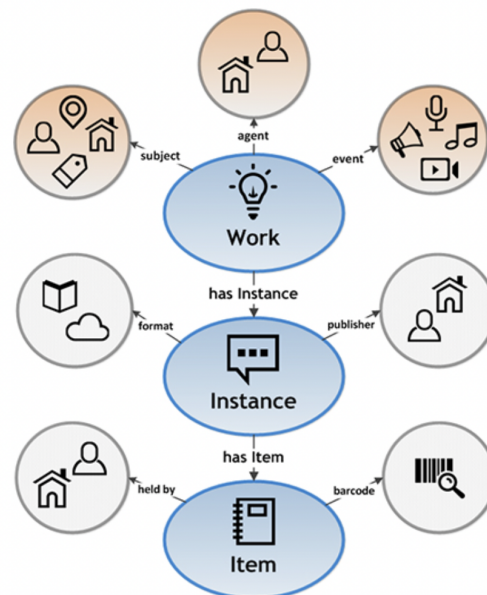
The creation of BIBFRAME was initiated by the Library of Congress and was developed with assistance from Zepheira, a data management company, in 2011/2012. It was created to replace Machine Readable Cataloguing (MARC) bibliographic standards, made by Henriette Avram in the 1960s.¹ The purpose behind the construction of BIBFRAME is to make library resources more findable on the web by using linked data techniques and is designed for broader integration overall.²

- **Who maintains it?**

The Bibliographic Framework Initiative (BIBFRAME), which is housed under the Library of Congress and began in 2011, maintains BIBFRAME. The library community (librarians and technical service professional) also plays a role in developing the BIBFRAME model through ongoing engagement and feedback. BIBFRAME 2.0 is the most up-to-date version.

- **How does it encode information about resources? What is its basic structure?**

The basic structure of BIBFRAME is the BIBFRAME Model, which focuses on relationships between resources (Work-to-Work relationships;



The BIBFRAME 2.0 Model. Library of Congress Network Development and MARC Standards Office.

¹ Thomas D. Steele T, "What Comes Next: Understanding BIBFRAME," *Library Hi Tech* 37, no. 3 (2019): 513, doi:<http://dx.doi.org/10.1108/LHT-06-2018-0085>, <https://www.proquest.com/scholarly-journals/what-comes-next-understanding-bibframe/docview/2289421942/se-2?accountid=14656>.

² Sally H. McCallum, "BIBFRAME Development." *JLIS.it : Italian Journal of Library and Information Science* 8, no. 3 (2017): 72, <https://doi.org/10.4403/jlis.it-12415>

Work-to-Instance relationships; Work-to-Agent relationships) as exemplified in the image below. It manages these relationships by using controlled identifiers for things (people, places, languages, etc). When creating a BIBFRAME catalogue record, one can add descriptive information elements, such as what the book is about, who the author is, etc. This information is organized into 3 levels: Work, Instance, and Item. The BIBFRAME Editor (BFE) is a tool that allows for “the organization of this information through the input of BIBFRAME vocabulary elements.”³

- **What institutions / collections is it for? Which currently / historically use it?**

Libraries are the main institutions that use BIBFRAME to catalogue their collections. According to the BIBFRAME Frequently Asked Questions on the Library of Congress, the BIBFRAME model and its elements are still in the discussion and development phase. When it is further fleshed out, it is expected that operating in a hybrid environment (using MARC and BIBFRAME will be likely.⁴

- **What software / other infrastructure is built with it in mind?**

The most notable infrastructure that is related to the development of BIBFRAME is linked data, which lays out best practices for connecting and structuring structured data on the web which allows data to be easily shared over the Semantic Web.⁵ The technologies that support linked data include:

- **Uniform Resource Identifiers (URIs)** – a generic means to identify entities or concepts in the world;
- **Hypertext Transfer Protocol (HTTP)** – a simple yet universal mechanism for retrieving resources - descriptions of resources;
- **Resource Description Framework (RDF)** – a generic graph-based data model with which to structure and link data that describes things in the world.⁶

BIBFRAME vocabulary was also developed to identify and describe resources and have a “defined set of classes and properties” to do so and to be understood and discoverable

³ Paul Frank, “BIBFRAME: A Manual for Understanding Version 2.0 and Related Tools: BIBFRAME Editor (BFE),” *Library of Congress Research Guides*, last modified May 13, 2021, <https://guides.loc.gov/bibframe-manual/bibframe-editor>

⁴ Network Development and MARC Standards Office (LS/NDMSO), “BIBFRAME Frequently Asked Questions,” *The Library of Congress*, accessed March 20, 2022, <https://www.loc.gov/bibframe/faqs/#q02>

⁵ Paul Frank, “BIBFRAME: A Manual for Understanding Version 2.0 and Related Tools: BIBFRAME and Linked Data,” *Library of Congress Research Guides*, last modified May 13, 2021, <https://guides.loc.gov/bibframe-manual/bibframe-and-linked-data>

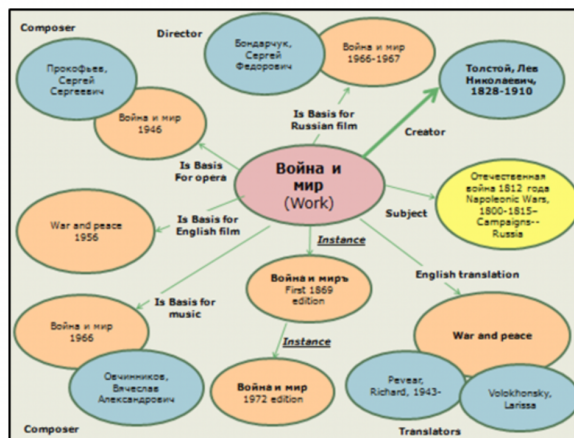
⁶ Paul Frank, “BIBFRAME and Linked Data,” *Library of Congress Research Guides*, last modified May 13, 2021, <https://guides.loc.gov/bibframe-manual/bibframe-and-linked-data>

by a Semantic Web program.⁷ Individual institutions can also create their own unique vocabularies to meet localized standards and guidelines.⁸

Example of BIBFRAME Record

Appendix B

A visualization of BIBFRAME's powerful use of links to illuminate relationships among resources, using Tolstoy's War and Peace:



From: Author unknown, "BIBFRAME (Bibliographic Framework)," *Librarianship Studies & Information Technology*, April 23, 2021, <https://www.librarianshipstudies.com/2017/12/bibframe.html>

ANALYTICAL POINTS:

- **What use case is it best for?**

Bibframe is best used in library contexts in order to support greater discoverability of information in bibliographic records through linked data. Someone with formal MLIS training with technical expertise would be the best candidate to generate bibliography records using BIBFRAME.

- **What are the obvious issues with the format?**

It has been noted that there are currently still issues that complicate the conversion / translation process from MARC to BIBFRAME due to "semantic ambiguities."⁹ It has been noted that work is still ongoing to create a smoother transition between data

⁷ Paul Frank, "BIBFRAME and Linked Data," *Library of Congress Research Guides*, last modified May 13, 2021, <https://guides.loc.gov/bibframe-manual/bibframe-and-linked-data>

⁸ Paul Frank, "BIBFRAME and Linked Data," 2021.

⁹ Jung-Ran Park, Lorraine L. Richards, and Andrew Brenza, "Benefits and Challenges of BIBFRAME," 2019.

formats for libraries in the future. Issues may also arise if MARC records are created inaccurately as this will affect the interoperability of BIBFRAME data.¹⁰

- **How are you likely to encounter / implement it?**

One is likely to encounter or implement BIBFRAME when cataloging bibliographic records in a library, sometime in the future.

¹⁰ Jung-Ran Park et al., "Benefits and Challenges of BIBFRAME," 2019.

Sources

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<https://www.proquest.com/scholarly-journals/what-comes-next-understanding-bibframe/docview/2289421942/se-2?accountid=14656>.