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LIS 6711

December 3, 2021

Research Paper

How BIBFRAME came to be, current implementation, and a look to the future

To understand what the future might hold for BIBFRAME, we first need an understanding of what BIBFRAME is as well as how and why it began. Because of the size limitations of this paper, this will be a very basic overview.

Starting in 1968, MAchine Readable Cataloging, or MARC, was used by libraries to help organize the information contained on cards from the card catalog so that it could be accessed through computers. It was a great achievement, but it couldn't adapt to the changes we would see in computing. Through the 1990s, the library was still likely to be the first place people would look to for information. But somewhere in the 1990s, the internet, which had mostly been used by universities and government institutions, started appearing more frequently in private homes (Lee, 2014). MARC doesn't integrate with the internet. The library world saw how limiting this was, and in 2002, Roy Tennant's article, entitled "MARC Must Die" caused some commotion in the library community. It was clear that MARC wasn't able to keep up with technology (BIBFRAME, 2021).

In May of 2011, the Library of Congress began the process that would result in the BIBFRAME model. They worked with Zepheira, a Semantic Web company, to develop a model that would essentially be a next generation version of MARC that would allow for growth and flexibility (Pesch & Miller, 2016). That same year, the world's largest search engines (Google, Bing, and Yahoo) combined to start Schema.org, which was essentially a way for web developers to provide rich metadata to search engines and enhance the user experience (Miller, et al., 2012). So substantial changes were happening in both the business world and the library world at the same time.

Ten years later, in 2021, the world has changed a lot. When someone is looking for information now, they are not likely to head to their library first, even if their library is chock-full of helpful sources and materials about the exact subject they are looking for. Instead, most folks will head directly to Google to seek information and answers. The way our society and technology have advanced through the years, most people carry around a computer in their pocket, and ready access to the internet at almost all times has cultivated our dependence on it.

BIBFRAME is intended to change the way that people view, interact with, and perceive the library. It acts as a bridge between user and resources, connecting the internet to the library's internal information (Pesch & Miller, 2016).

There are three levels of adoption that the Library of Congress has set forth for implementation of BIBFRAME. The first level is making library records viewable in an online setting. Next is connecting a network of libraries that use BIBFRAME. And the long-term goal is to cultivate a "rich network of data" (Innovative, 2019). The first phase began in 2015 when 40 catalogers, trained in Linked Data and in

BIBFRAME, began to create records. The following year, they added 23 more trained catalogers (Innovative, 2019). There are two iterations of BIBFRAME, 1.0 and 2.0. The first implementation, now called BIBFRAME 1.0, was simple- it was divided into four classes (work, instance, authority, and annotation). In 2015, Robert Sanderson was commissioned by the Library of Congress to review this model and make recommendations for the future. One of the most significant changes suggested in the Sanderson report was to divide things into three classes instead of four, replacing authority and annotation with item. This more closely aligns with the FRBR (Functional Requirements for Bibliographic Records) model (Schreur, 2018).

One thing that seems to be in conflict is how MARC might still fit into this larger equation. While some sources that I found seemed to suggest that MARC was never expected to be fully removed from library use (Carlson, 2020), another alluded to the (seemingly soon) point in time at which "a cataloger creates the last MARC record (Innovative, 2019)".

Why, exactly, should this make a difference to the general public?

So many library resources are behind a virtual wall, and while they are fully accessible to patrons, many patrons don't know that they even exist. For instance, I did a search for a book (that I currently have checked out from my local library) by just entering the title of the book into a google search. I got a link to Amazon, a link to GoodReads, and in the sidebar on the right side of the screen, there were links to buy it on Audible, to buy it at AudioBooks.com, and a "find in a library" link. This link directs you to WorldCat, so when I clicked the "search" button, I got a very long list of locations for this book, but it didn't include the library I had it checked out from. The closest four locations were universities that I don't have access to, and the first public library listed in the results is 83 miles away. If the BIBFRAME model were widely used, instead of a database (WorldCat) that uses Linked Data to be found online, I would know for sure that my local library also has copies available. Not only would this satisfy the informational need of the request, it would also affirm the local library's standing in being a resource for future needs. It would position the local library in the minds of patrons who might not be aware of all that their library has to offer.

As it is now, to find things at the library, you must go to your library's specific website. The average internet user who doesn't already use their library simply doesn't know this information and upon seeing the "fact" that the closest copy is in a library that is inaccessible to them based on membership or distance, would feel the need to purchase a copy if they wanted to read it.

The future of BIBFRAME is a bit unclear. When you go to the Library of Congress website and look at the FAQs (frequently asked questions) for BIBFRAME, they say that the model is still under development and that libraries should not be looking to move to this model yet. According to the Library of Congress register, there are 9 groups currently implementing some form of BIBFRAME 2.0, and 9 other groups which had used some level of BIBFRAME 1.0 (LoC, n.d.).

Eric Miller, who was involved in the origins of the Semantic Web, and is the president of Zepheira, was interviewed in 2016 about how libraries can use BIBFRAME to solve problems. He said that implementing BIBFRAME is "making massive error correction to the open web and filling the 'library-shaped hole' that has existed until now (Pesch & Miller, 2016)". But until it's used by more libraries, that hole remains.

Because implementation of BIBFRAME is not a fast process, and based on what has happened in the 10 years since the BIBFRAME initiative began, it's hard to see what's on the horizon for it beyond what has been discussed so far. Ruth Tillman, a Linked Data strategist at Penn State University Libraries, doesn't mince words when she speaks about the lack of progress that's been made to date. Since this is her area of expertise, her statement that "we're still not fulfilling the dream or promise of linked data (Carlson, 2020)" packs quite the punch. The goal is still to get to that first level of linked data in libraries. To look much further ahead than that would be putting the cart before the horse.

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