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Serials & E-Resources News

Report on BIBFRAME and the Future of Holdings Information

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The 2014 ALA Midwinter forum sponsored by the ALCTS/CRS Holdings Information Committee was held on January 25, 3:00-4:00 pm. The two presenters were Rebecca Guenther (Library of Congress) and Diane Hillmann (Director of Metadata Initiatives for the Information Institute of Syracuse). Guenther discussed the BIBFRAME initiative and the impact it will have on the communication of holdings information. Ms. Hillmann discussed her research and shared her thoughts on the future of holdings data.

Holdings in BIBFRAME: A High Level Model

Guenther's presentation has two parts: the BIBFRAME model and holdings in BIBFRAME. She delineated the milestones of the BIBFRAME initiative—from its beginnings in May 2011 to January 2014, when the vocabulary was updated and a rudimentary editing tool was developed. Based on linked data and semantic web technologies, the BIBFRAME initiative is an effort to provide a foundation for the future exchange of bibliographic description. The development of the BIBFRAME initiative was precipitated by technological and environmental changes. Its goals are as follows:

- To inherit the robust nature of MARC and integrate library data with other cultural heritage on the web.
- To maintain content standard neutrality (RDA, DACS, CCO, etc.).

- To handle description and management of both traditional and non-traditional materials.
- To integrate supporting data (authorities, holdings, classification, community information).
- To leverage web technologies (collaboration, linking, web triggers).

There are four resource classes that comprise the BIBFRAME model:

- work (conceptual essence of the cataloged item)
- instance (material embodiment of work)
- authority (key concepts defining relations to works and instances)
- annotation (assertion about the other core class elements)

Guenther then turned her focus to holdings, which are found at the annotation level. To support a proposed holdings model, classes (Held Material and Held Item) and properties are introduced. The model is represented in RDF (Resource Description Framework), e.g. *bf:annotates* for properties; *bf:holdingsFor* and *bf:componentOf* for sub-properties. And for combining Works and Instances, *bf:includesWork* and *bf:includesInstance*. The prefix *bf:* denotes the BIBFRAME namespace.

She examined four monographic holdings scenarios using BIBFRAME models. They are as follows: simplest scenario (single volume work, an instance, one copy); multiple copies (single volume work, an instance, multiple copies); new work created (for the purpose of combining two existing related works); and bound with

(two unrelated works, published individually, bound together by a library). As of the date of her presentation, scenarios for serials holdings and reproductions have not been developed.

After showing some sample BIBFRAME-encoded records (work, instance, and holdings) and the BIBFRAME transformation tool, Guenther concluded that there is a need for additional work. Specifically, she recommended additional use scenarios, modeling for detailed serials holdings, additional functionality for holdings, and a revised vocabulary.

A Consideration of Library Holdings in the World beyond MARC

Hillmann's presentation focused on the current research regarding the functionality of holdings data. A lot of work has been done on bibliographic information, but due to its complexity, only recently has some attention been given to holdings information. She listed traditional functional needs for holdings as follows:

- Communication between libraries and vendors/publishers about subscriptions, payments and issuances.
- Communication between libraries about specific availability for access (including ILL).
- Internal management of materials (e.g., predictive check-in, remote storage, preservation, etc.).
- Support for users with specific (sometimes problematic) citations.

In the analog world, we have holdings standards, such as MARC21 holdings, NISO Z39.71, and ISO 10324:1997. Many new standards are being developed in an increasingly digital world. A comprehensive list of ongoing efforts on holdings can be found at the German National Library (DNB) site:

<https://wiki.dnb.de/display/DINIAGKIM/Collection+of+Holdings+Ontologies,+Vocabularies,+Standards>. The

DNB's ongoing work offers a different view about service, agent, item, document, holdings, and title.

Further information is available at its wiki site:

<https://wiki.dnb.de/display/DINIAGKIM/Scope+of+Holdings>.

ONIX (<http://www.editeur.org/123/Serials-Coverage-Statement>) is a standard developed by EDITUR to be used primarily for business messaging between publishers, vendors, and libraries. It is based on MARC Format Holdings Data to some extent.

Another standard is schema.org (<http://schema.org>), which "provides a collection of schemas, i.e., html tags that webmasters can use to markup their pages in ways recognized by major search providers. Search engines including Bing, Google, Yahoo!, and Yanex rely on this markup to improve the display of search results, making it easier to find the right web pages."

Finally, Hillmann discussed her research at Metadata Management Associates (MMA). The work is based on MARC 21 bibliographic format, and the goal is to enable use of MARC holdings for mapping or re-use in a different environment.

In conclusion, Hillmann said there is no one solution, as we're not living in a "one-size-fits-all" world, and therefore, the functional requirements vary greatly based on needs of particular communities. Holdings approaches change in tandem with their "parent" schemas.

Ms. Hillmann's presentation slides can be found at: <http://www.slideshare.net/smartbroad/library-holdings/>