

FRBR: The End of the Road or a New Beginning?

by Maja Žumer

Functional Requirements for Bibliographic Records

Functional requirements for bibliographic records (FRBR) is the conceptual model of the bibliographic universe developed by the International Federation of Library Associations and Institutions (IFLA). The final report [1] was approved in 1997 and published in 1998. Interestingly enough, after almost 10 years, we still most often refer to FRBR as “the *new* library model.” This can be explained by the fact that there are not many real-life implementations of FRBR. Indeed, the model is often seen as (only) an interesting intellectual exercise, while cataloging practices stay the same. We need to remember that current cataloging rules are still based on the Paris Principles [2] (which were agreed upon and accepted in 1961) and our current catalogs are, in fact, only an electronic replica of a card catalog, for which reason they have often been criticized (for instance, by the University of California Libraries [3] and Marcia Bates [4]).

Yet there still seems to be some reluctance by the library community to implement FRBR. Several factors may contribute to this, some of which are listed below in no particular order:

■ Conservative attitude of librarians

Without making a value judgment about this assumed characteristic of librarians, one must note that librarians have been collecting information resources and developing information tools over decades and even centuries. Therefore, it is infeasible to repeatedly change the way things are done, and a conservative approach is often not only expected but also necessary. On the other hand, resisting all change may stop development and prevent the library from offering better service to its users.

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■ Legacy data

A lot of resources have been invested in library catalogs over the years. It is almost impossible and rather illogical to start from the beginning and replace these resources with new tools. To make the transition to FRBR possible, it is necessary to extract the FRBR structure from existing data. Several such FRBRization projects have been attempted [5] [6]. As reports show, if the existing data are consistent and complete, the results are relatively good.

■ The model is perceived as theoretical [7]

Given this perception, practicing librarians who are accustomed to detailed and practical cataloging rules may not find such high-level conceptual models necessary or useful.

■ The model is open to interpretation

Some of the FRBR entity definitions are rather vague and allow for different interpretations – a particular disadvantage in a theoretical model. The definitions for *work* and *expression* are examples. The FRBR Review Group, the IFLA body responsible for support and development of FRBR, has established working groups in an attempt to address this issue.

■ FRBR is not a data model

Although the entity-relationship methodology is often used for data modeling, in the case of FRBR, it is only a tool for conceptual modeling. The authors of the study made it very clear that no assumptions about the actual implementation have been made.

■ There are no cataloging rules (yet)

However, there are promising developments. Resource Description and Access (RDA) and Italian cataloging rules are being developed, both using FRBR as a starting point.

Some Steps Forward

After an enthusiastic response and much initial discussion, librarians’ interest in FRBR seemed to wane over time. However, in 2005, two events brought FRBR to center stage again: a workshop in Dublin, Ohio, and an IFLA pre-conference in Järvenpää, Finland. >

The invitational workshop, “FRBR in 21st Century Catalogs,” (www.oclc.org/research/events/frbr-workshop/default.htm) was organized by OCLC and the FRBR Review Group. Many topics were discussed, including aggregates in FRBR, review of entities, relationships and attributes, implementation of FRBR and interaction with the library community and beyond.

The conference, *Biblioteca Universalis – How to Organize Chaos? FRBR, a New Effort to Organize Content and Some Practical Applications* (www.kaapeli.fi/~fla/frbr05/prgr.htm) was organized in Järvenpää, Finland, as a satellite meeting to the 71st IFLA General Conference in Oslo. Again, the library community gathered for presentations and discussions that resulted in the renewed interest of a larger audience.

Encouraged by these developments, the IFLA FRBR Review Group, established in 2004, is now taking a proactive role in the promotion and development of FRBR. Newly formed working groups are focusing on particular problems. Two that must be mentioned in particular are the working group on the expression entity and the working group on aggregates. The former has already provided a pragmatic interpretation of the expression entity, while the latter will deal with anthologies, series, augmentations and journals (all composites of individually created dependent/independent works), which are neither treated consistently nor in detail in the original model. These developments are also described elsewhere.

Interoperability within the Library Community

The crucial issue for the survival of FRBR seems to be that, unless the problem of legacy data is solved, the model will neither be accepted nor implemented by the library community. Research (for example, studies by O’Neill [8], Hickey, et al. [6], Ayres [9] and Kilner [10]) has shown that the FRBR conceptual model does not lend itself to easy implementation. It is difficult to distinguish where one entity ends and another begins, owing in part to cultural differences explicitly mentioned in the FRBR Final Report.

It turns out that, in practice, the expression entity poses some of the biggest challenges. It does not help that bibliographic records are often lacking in terms of documenting illustrators and other contributors, and the “rule of three” is problematic as well [8]. Too often, one can only ascertain that two expressions or manifestations are the same by thoroughly reviewing the actual items themselves – in essence, re-cataloging them. Unfortunately, in many circumstances, there is no justification for such

extensive, resource-consuming activities.

Current bibliographic records describe the manifestation (based on the cataloger’s inspection of an item), but each record also contains some information about the work and the expression. Theoretically, if we have complete and consistent MARC records, it is possible to extract enough information to identify FRBR entities (work, expression, manifestation). This analysis has been confirmed in several FRBRization experiments, but these studies have also shown that the records we normally have are neither complete nor consistent. In addition, much important information is recorded as unstructured text, mostly as notes, and is either not appropriate or very difficult for computer processing. If uniform titles are used, it is relatively easy to extract information about the work from records. If relator codes are added to names, it is possible to link each name (of a person or corporate body) to the appropriate creation (for example, linking the translator to the expression). In contrast, it is usually difficult to extract information about all expressions embodied in a manifestation (such as text and foreword or text and illustrations); the information is included in the notes, if at all.

Many librarians are also discouraged by statistics reported by Bennett, Lavoie and O’Neill [11] showing that a majority of works have only one expression and manifestation, and only a relatively small number have more than one expression. Only about 20% of all works in WorldCat have more than one manifestation, and about 1% have more than seven. To some, this might suggest that only a relatively small percentage of a catalog would profit from FRBR, which could bring the viability of FRBR implementation as a whole into question. However, what is usually overlooked is the fact that the latter works have been published in many versions and editions, showing that there is demand for them, and they are central to the users.

What is the solution?

First, librarians must accept a less-than-perfect result of FRBRization and allow for subsequent corrections. While we probably will never allow users themselves to amend and change the bibliographic records, it might be worthwhile to try user annotation and social tagging. Some libraries are already offering new services, called Library 2.0, that enable users to actively participate in this manner.

Second, cataloging rules according to FRBR must be developed. RDA (Resource Description and Access) seems to be progressing in that direction, and new Italian cataloging rules are also being developed. >

Third, we must develop FRBR data models and interface prototypes. So long as we have only theoretical discussions, there will be no real breakthrough. The benefits of FRBR are difficult to show without prototypes. However, prototypes can only be developed with FRBR data.

Interoperability with Other Communities

The FRBR study claims the model covers all types of materials. Most critics point out that the focus is really on traditional, mostly textual publications. The interoperability with other communities has, so far, not been a major focus of discussions. However, there is no doubt that there is potential for this interoperability, particularly with other cultural heritage institutions, such as museums and archives.

An important development is the work of the FRBR/CRM Harmonization Group, a joint effort of IFLA and the International Council of Museums—International Committee for Documentation (ICOM CIDOC). Since libraries and museums share many users and types of materials, it is important that a common view of cultural heritage information be developed. The goal is to bring together (harmonize) the library model (FRBR) and museum model (CRM: Conceptual Reference Model). In preparing an object-oriented version of FRBR, additional goals are to check FRBR's internal consistency, enable interoperability and integration, extend the scope of both conceptual models and open the road toward future applications. The first complete draft of the object-oriented version of FRBR has been published for public comment as "FRBR object-oriented" [12]. The harmonized model is intended to be further developed and refined.

Finally, another area of possible (and so far, overlooked) implementation of FRBR outside the library community is in intellectual rights management. The FRBR entities can be linked to intellectual rights, and if one also takes into account the wealth of name authority files, the benefit is obvious.

Conclusion

Now may be the turning point for FRBR implementation. Several parallel current trends seem very favorable to FRBR: the development of new cataloging rules and the International Meetings of Experts for an International Cataloguing Code (IME-ICC) under the auspices of IFLA, in charge of the definition of new International Cataloguing Principles to replace the "Paris Principles." In addition, new FRBRization tools are being developed and tested, and we may soon see more and more prototypes of new catalogs.

After a relatively slow start, FRBR has recently gained some momentum. To foster further development, we have to emphasize the model's biggest potential: access to distributed bibliographic information in union catalogs and portals, for example, The European Library (www.theeuropeanlibrary.org). For such portals, FRBR offers meaningful clustering of search results and navigation. The same approach could then be applied to access to all cultural information.

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