ROLE OF FUNCTIONAL REQUIREMENTS FOR BIBLIOGRAPHIC RECORDS IN DIGITAL LIBRARY SYSTEM

Sanjiv Kadyan

Assistant Professor, MDU, ROHTAK, Haryana, India

Renu

Research Scholar, MDU, ROHTAK, Haryana, India

ABSTRACT

This article aims to look out at role of FRBR in digital library system. Basically FRBR is not a draft standard, but the new library model assigned some cataloguing rules and applications of FRBR in a digital system. Different authors have different opinion, but we are trying to exhort that FRBR implemented in a prototype library catalog and related user research during the design and implementation process.

Key words: FRBR, MARC, Online Catalog, System Design Model, Conceptual Reference Model, MODS (Metadata Object Description Standard).

Cite this Article: Sanjiv Kadyan and Renu, Role of Functional Requirements for Bibliographic Records in Digital Library System. *International Journal of Library & Information Science*, 7(1), 2018, pp. 41–46.

<http://iaeme.com/Home/issue/IJLIS?Volume=7&Issue=1>

---

1. INTRODUCTION

Conceptual Framework: Web-enabled technology has been given different Cataloguing format. Resource description Access helps resource discovery and guides the recorded data and RDA is a latest version of Anglo American Cataloguing Rule -2. FRBR is a new approach for contemporary manner. The concern of the librarian community about new rules for bibliographic descriptions applied to digital environments has led professionals to rethink their profession in an endeavor to adapt to the new changes brought about by the arrival of technological recontextualization of libraries. Taking this into account, we intend to point out and reflect on such changes by proposing a model of functional requirements for modelling bibliographic catalogs, guided by description logic methodologies of Descriptive Cataloguing, in ontologies for bibliographic descriptions explained in the cataloguing rules and codes and metadata standards to effectively establish interoperability in the digital information environment. When a data structure is mentioned in the bibliographic domain, we think of a conceptual data model that is established by FRBR. This makes use of an entity-relationship model, which consists of two main concepts: ‘things’ and relationships. FRBR defines 10

categories of ‘things’, which are called entities: Work, Expression, Manifestation, Item, Person, Corporate body, concept, object, event and place. The entities may be included, for example, as a work, a text, a book, etc. The attributes correspond to the data features related to the entity and serve to differentiate the intellectual or artistic content. The relationships describe the links between one entity and another, to help users manage information resources in a system (Moreno, 2006).

2. PEDIGREE OF INFORMATION ABOUT FRBR

In 1995, an event took place in the world of library cataloging that can be compared in its significance to the Paris Conference of 1961 and its Statement of Principles. This was the publication, by the Section of Cataloguing of IFLA, the International Federation of Library Associations, of a document entitled Functional Requirements for Bibliographic Records. The document is now widely referred to by its acronym FRBR (pronounced “furbur”). FRBR was launched as an initiative of the IFLA. It came to life in 1990, at the Stockholm Seminar on Bibliographic Records. At that seminar, it was decided that IFLA’s Section on Cataloguing should form a task force to study the issues outlined above. A number of major players within the world-wide cataloging community were asked to join the task force, among them John Byrum (Library of Congress), Dorothy McGarry (UCLA), Tom Delsey (National Library of Canada), Elaine Svenonius (UCLA), and Barbara Tillett (Library of Congress). After several years of research, they produced a report, which they entitled Functional Requirements of Bibliographic Records. Their report was then presented to IFLA, which formally adopted it in 1997. Since its publication, FRBR has become our new theoretical model for cataloging, and also the basis for the forthcoming cataloging code, Resource Description and Access (RDA). FRBR is the foundation document for an ongoing re-conceptualization of cataloging, whose most significant product to date is a new cataloging code, Resource Description and Access (RDA). RDA is intended to take the place of the Anglo-American Cataloguing Rules, 2nd edition. RDA has been accepted (albeit with reservations) by the major players in the English-speaking library world (e.g., Library of Congress, the British Library, Library and Archives Canada); we can expect that it will be implemented in most English-speaking libraries beginning in 2013. The present essay offers an overview of FRBR and RDA that will, it is hoped, be especially helpful to librarians who are not themselves catalogers.

3. IS IT A STANDARD OR THE CATALOGUE CODE?

“What is FRBR” and why it is important for libraries, both physical and digital, has received significant analysis, by authors far more eloquent than this one, so we will begin with several definitions.

“FRBR is not cataloging rules, a system architecture, a record format, a display standard or the end of the world! ....It is like the Bible. Many people will tell you what they think it says, but read the document if you really want to know” (Weiss and Shadle, 2007).

“FRBR is not a draft standard, nor is it intended to replace AACR2 or any other cataloging code. FRBR is a systematic, international examination of automated catalogs and the records that comprise them” (Allgood 2007).

“In essence, FRBR is a model of a model, if one considers that a bibliographic record is a representation of a document and so, in its own way, is as much a model as FRBR. If one considers a title page or other chief source of information to be a representation of a document as well, and thus a model in its own right, FRBR is a model of a model of a model of a document. In the list of definitions above, the first and third fit FRBR most closely: FRBR is a representation and simplified description of the bibliographic universe” (Carlyle 2006).

4. THE PURPOSES OF FRBR

- To reach a common view of cultural heritage information through the harmonization of the high-level conceptual models of the library and museum communities.
- To verify the internal consistency of the FRBR family of models by expressing these models using a different formalism or methodology.
- To enable interoperability of data between the library and museum domains by having a shared ontology, and thus also supporting the integration and exchange of data from these two domains in applications, discovery and navigation tools, portals, etc.
- To fine-tune the conceptual models of each community through the modelling work required to achieve harmonization: the work involved in the harmonization deepened both communities' understanding of issues that may have been overlooked during initial development.
- To extend the scope of the FRBR family of models beyond the library domain and to extend the scope of the museum community's model to include bibliographic information.

5. CONTRASTS WITH RDA AND FRBR

RDA is the acronym for Resource Description and Access, the new cataloging code that has been developed over the past decade as a replacement for the Anglo-American Cataloguing Rules, 2nd edition (AACR2). The body responsible for its development is the Joint Steering Committee (JSC) for Development of RDA, earlier known as the Joint Steering Committee for the Anglo-American Cataloguing Rules.⁴ RDA is an attempt to build a cataloging code on the FRBR model, and as such departs completely from the structure used in AACR2, which was based on the International Standard Bibliographic Description (ISBD). Part 1 of AACR2, dealing with bibliographic description, was structured around the eight Areas of Description laid out in the ISBD, and was further organized according to eleven types of material (books, maps, music, sound recordings, etc.). Part 2 of AACR2, dealing with access points (headings), was based on the Statement of Principles that came out of the Paris Conference. RDA, on the other hand, bases its structure on FRBR. First, it identifies all the entities concerned. Then, it specifies which attributes of those entities should be recorded, and instructs the cataloger how to record each of the chosen attributes. Finally, it defines the possible relationships between entities, and instructs the cataloger how to record these relationships. FRBR is based on an entity relationship analysis. It defines by four entities in a first group: Work, Expression, Manifestation and Item, and three entities in a second group: Person, Family and Corporate Body. The FRBR model also presents a set of entities of which may additionally serve as the subject of a work. These include Concept, Object, Event and Place.

6. STRUCTURE OF FRBR MODEL

The basic elements of the FRBR model are results of a logical analysis of data typically reflected in bibliographic records undertaken by members of the Study Group. Entities are divided into three groups:

(1) Group 1 consists of four entities that are products of intellectual or artistic endeavor and include:

- work – a distinct intellectual or artistic creation;
- expression – an intellectual or artistic realisation of a work;
- manifestation – a physical embodiment of an expression; and
- item – a single exemplar of a manifestation.

(2) Group 2 consists of entities that are responsible for intellectual or artistic content.

(3) Group 3 consists of entities that serve as subjects of intellectual or artistic endeavour.

The FRBR model defines three groups of entities and describes the relationship among these groups of entities).

- The products of intellectual or artistic endeavor (Work, expression, manifestation, item)
- Those responsible for the intellectual or artistic content (Person or corporate body)
- Those that serve as the subjects of intellectual or artistic endeavor (concept, object, event, and place; persons and works can also be the subjects of works).

The FRBR conceptual model is an entity-relationship model of metadata for information objects, and is particularly important as it makes it possible to communicate with communities on the fringe of the library community such as archives, museums, computer science and publishing. The FRBR model provides a direction for developing a new generation of Online Public Access Catalogue (OPAC) display pattern and on new methodologies of searching/ retrieving bibliographic record which is demonstrated in this study. The FRBR model also presents a set of entities of which may additionally serve as the subject of a work. These include Concept, Object, Event and Place.

Functional requirements for structural modeling in the bibliographic domain.

7. FEW FACTOR OF FRBR DEVELOPMENT

Some key factors prompted the development of FRBR

1. Introduction and development of automated systems for the creation and processing of automated data.
2. The growth of shared cataloging has been spurred not only by the technological capability now available but also by the need to cut costs by reducing duplicate cataloging efforts.

3. Increasing costs have forced libraries to take a pragmatic view of cataloging and look for a 'minimal level' of cataloging to keep up with increasing publishing output.
4. There has been an increasing need to adapt cataloging codes and practices to accommodate change resulting from the emergence of new forms of electronic publishing, and the advent of networked access to information resources.
5. Today's seekers of information have more sophisticated expectations and needs and cataloging systems must be able to meet them to remain viable and competitive.

8. CONCLUSIONS

FRBR study unveils that it covers all types of material in bibliographic records.. Librarians claims that FRBR is a important for library metadata. In simple words, we can say that FRBR introduced a new perspective that application of developing different catalogs and provide better services with accessing bibliographic data in a digital environment. FRBR architecture, implementation of the Greenstone Digital Library System (Buchanan 2006). The main focus of his research was on the construction of FRBR capabilities of standard digital library architecture such as Greenstone. In Library & Information Science profession we should be coalesced and open to discuss very rare topic like FRBR and formulated better advanced code for catalouging.

REFERENCES

- [1] Bennett, Rick ; Lavoie, B.F & O'Neill, E.T. (2003). The concept of a work in WorldCat: an application of FRBR. *Library collections, Acquisitions, & Technical Services*. 27(2003),45-59.
- [2] Yee, M.M. (2005). FRBRization: a method for turning online public finding lists into online public catalogs. *Information Technology and Libraries*. 24(2), 77-95
- [3] Ayres, M. (2005). Case studies in Implementing Functional requirements for bibliographic records.: Aust LiT and Music Australia. *The Australian Library Journal*.54 (1), 43-54.
- [4] Beall, Jeffrey.(2006). Some Reservations about FRBR. *Library HI Tech News*. 23(2), . 15-16.
- [5] Preez, Madely Du. (2008). Understanding FRBR: What it is and how it will affect our retrieval tools. *The Electronic Library*. 26(5),2008.
- [6] Zhang, Y. & Salaba, A. (2009). What is next for Functional Requirements for Bibliographic Records? *A Delphi Study. Library Quarterly*.79 (2), 233-255.
- [7] Peponakis, Manolis. (2012). Conceptualizations of the Cataloging Object: A Critique on Current Perceptions of FRBR Group 1 Entities. *Cataloging & Classification Quarterly*. 50(5-7), 587-602. <http://dx.doi.org/10.1080/01639374.2012.681275>.
- [8] Chang Naicheng, and others. (2013). Experimenting with implementing FRBR in a Chinese Koha system. *Library Hi Tech News*. 30(1),10-20.
- [9] <https://doi.org/10.1108/LHTN-09-2013-0>
- [10] Hider, Philip. (2017). A Critique of the FRBR User Tasks and Their Modifications. *Cataloging & Classification Quarterly*. 55(2), 55-74.
- [11] Edgar, Jones.(2018).The evolution of the serial work, the FRBR conceptual Model, and RDA: *Cataloging & Classification Quarterly*. 56(2-3), 128-145.

ABOUT THE AUTHOR

Dr. Sanjiv Kadyan, Assistant Professor in the Department of Library and Information Science, Maharshi Dayanand University, Rohtak. He has qualified NET/JRF and obtained Ph.D. degree from Kurukshetra University Kurukshetra. He has also done MBA. His areas of interest are Electronic Resource Management, Management of Organisation and Research Methodology in Library and Information Science.

Renu, Ph.D Research Scholar in the department of Library & Information Science in the Maharshi Dayanand University, Rohtak. She has qualified NET/JRF and pursuing Ph.d from M.D.U. She had three years experienced as a librarian in Bhagwan Mahabir Jain Girls College of education. His areas of interest are Information Retrieval, Marketing and Information Technology.