67th IFLA Council and General Conference
August 16-25, 2001

The impact of the FRBR model on the future revisions of the ISBDs: a challenge for the IFA Section on Cataloguing

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Abstract:

This paper lists some of the reactions from professionals all over the world to the publication of FRBR: suggested changes, pedagogical issues, experiments in implementation, other achievements inspired by the model. Then it tries to show how FRBR could be used in the process of revising ISBDs, in the context of interoperability between data from libraries, archives and museums, and in the context of the increasing availability of catalogues from the Web.

Since 1997 there has been a precise and scientifically accurate conceptual framework which might serve as a basis for any reflection on the nature, purposes and processes of bibliographic description: IFLA's entity-relationship FRBR model ([FRBR, 1998]). Naturally enough, when this model was published, it aroused many reactions, from librarians of course but from other people as well. A quick glance at some of the reactions that have been expressed for 4 years may help us to draw a rough balance of the impact of the IFLA model on global thought in the field of library science, and on its potential role in the revision of ISBDs, a revision made necessary at the same time by economical constraints and by changes in the technological context of information production. IFLA, as the originator of the FRBR model, was at the starting point of this reflection: it would be sad, were IFLA not to take part in it and to leave in other people's hands its intellectual responsibility on how its own model will be used.

1. How the FRBR model was received

    1.1. On a theoretical level

1.1.1. Proposals to amend the model

1.1.1.1. Generalities

Structure of the model: in June 2000, the attendants to the FRBR Workshop within ELAG's (European Library Automation Group) Annual Conference expressed their wish that the FRBR model should switch from entity-relationship to object-oriented[1].

Features of the model that need to be enhanced: Michael Heaney (who otherwise was the author, even before FRBR was published, of an object-oriented model for cataloguing ([Heaney, 1995]) which did not encounter the success it deserved and which eventually resulted in conclusions rather akin to FRBR) and Carl Lagoze (who otherwise is one of the originators of the ABC model [Lagoze, 2000]) regret that such notions as time, temporality, event, modification, etc., are not more thoroughly handled in the FRBR model.

1.1.1.2. User tasks

CC:DA Task Force on Metadata would like to add one more user task to the four ones that have been identified in FRBR: "manage" ([SDLA, 1999]). The Associazione italiana biblioteche (AIB) ([AIB, 1999]) and Elaine Svenonius ([Svenonius, 2000]) expressed the need for another additional user task: "navigate" (the catalogue).

1.1.1.3. Entities

Martha M. Yee ([Yee, 1997]) and the FRBR Workshop in ELAG Annual Conference of 1999 ([Holm, 1999]) independently expressed their wish that an additional entity had been defined in Group 1, above the *Work* entity, so as to make relationships between a parent work and all its derivative works more precise. Martha M. Yee called this entity *Superwork* and the ELAG Workshop called it just *"Top entity"*. Barbara B. Tillett has given a demonstration ([Yee-Tillett, 2000]) that this entity is in no way necessary in the structure of the model, and the following year ELAR withdrew this proposal, on the basis of Barbara B. Tillett's explanation. This proves that IFLA has a pedagogical role to play in direction of librarians in the whole world.

Besides, AIB regrets that the hierarchy of different kinds of *expressions* has not been defined in a more precise way, and they wish the *expression* entity were split into 4 distinct entities which would more accurately take into account the subtleties of musical creation: original scoring, merely editorial modifications (fair copy, critical edition…), arrangements (transcriptions, orchestrations…), performance. The ELAG FRBR Workshop does not go that far and simply wished in 1999 that notational forms of *expressions* of musical *works* and their *performances* were distinguished.

1.1.1.5. Terminology

T. A. Bakhturina ([Bahturina, 1999]) has stressed the difficulty of rendering into Russian the peculiar FRBR terminology, which she thinks questionable already in the English original. More generally speaking, this kind of reproach shows how necessary it is to reach some international consensus on basic technological terminology (*cf.* Monika Münnich's works within the IFLA Section on Cataloguing), and to strive to make this terminology as "translatable" as possible, if not in any language in the world — an impossible task — at least in the "main" (according to what criteria?) languages that are spoken in the world. In that respect, it is not enough that ISO standards should be translated into French so that they could be balloted: the English and French languages share too much common syntactical structure and lexical wealth for this exercise to be really useful at both conceptual and linguistic levels: it would be a good thing to have to translate these standards not only into French, but also into at least one Asian language and at least one African language. Translating ISO standards

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[1] The proceedings of the 2000 ELAG Seminar will be published at the end of 2001.

into Russian, Chinese, Japanese and Arabian before they are balloted would enhance their conceptual and terminological consistency and their phraseology, and it would also ensure, inasmuch as this term makes sense at all, that the concepts they convey are "universal".

1.1.2. Pedagogical issues

Kirsten Strunck already presented IFLA in 1999 with an assessment of Denmark's pedagogical experience ([Strunck, 1999]). One of her conclusions was that the most difficult point for Danish students was the articulation between *work* and *expression.* As to me, every time I introduce the FRBR model to French colleagues, I have exactly the same problem at the very same moment. This seems therefore to be the trickiest feature in the model, the most difficult one to explain. There is besides some FRBR training in other countries as well (Italy: Mauro Guerrini, Paul Gabriele Watson; Norway, USA, etc.): it would be most useful to share the experience acquired in all of these countries so as to take advantage of all these training endeavors and to try to solve together recursive pedagogical problems which are encountered everywhere.

1.2. On a practical level

1.2.1 Model implementation

1.2.1.1. Achievements

Scandinavian countries and Finland have already begun to develop databases totally or partially relying on the FRBR model: MARC/FRBR in Norway and Finland, VisualCat in Denmark. It would be most useful to share the knowledge which has been acquired in this field too.

1.2.1.2. Projects

Some projects are still under consideration only.

Participants in the ELAG FRBR Workshop intend to develop a database entirely according to FRBR and using XML. In opposition to the latter projects, this database would not aim at a description of an actual collection, but would be experimental only: the point is to investigate all potential advantages from FRBR, including those data elements which are not currently introduced in "traditional" bibliographic records.

Australia has also launched the ALEG project (Australian Literature Electronic Gateway), which will be essentially based on FRBR, with an additional use of the "Topic Maps" structure.

1.2.2. "Side uses"

1.2.2.1. Other conceptual data models inspired by FRBR

The model Peter C. Weinstein developed for the University of Michigan Digital Library (UMDL) is based on FRBR. It includes nevertheless one additional entity and the names of entities have been changed in order to match UMDL's specific needs ([Weinstein, 1998]).

The <in*d*ecs> model (developed by the Interoperability of Data in E-Commerce Systems initiative) shares much in common with FRBR. However, an important difference should be noticed: in both models there is an entity named *Expression,* but in <in*d*ecs> it applies only to recorded performances.

The ABC model, developed by the Harmony Project (a joint project of United Kingdom, USA and Australia) aims at the interoperability of all the conceptual data models that have been designed in the field of documentation science, and it integrates therefore the FRBR model to that purpose.

1.2.2.2. ISO standards for international identification numbers

Since FRBR has been published, all the ISO working groups that are developing a numeric identifier standard mention the IFLA model in their bibliography. But actually, these standards use the terminology and the very structure of FRBR with great discrepancies in accurateness and consistency from an identifier to another. ISAN (International Standard Audio-visual Work Identifier) has been defined so as to precisely apply to audio-visual *Works,* whereas ISWC (International Standard Musical Work Identifier) only applies to musical *Expressions* in notated form (and, in computer music only, to sound phenomena resulting from a composer's creative process). The underlying model in the definition of ISTC (International Standard Textual Code) is closer to the <in*d*ecs> model than to the FRBR model, but in the context of FRBR one might say that ISTC rather applies to *Expressions* than to textual *Works.*

1.2.2.3. ISO standard 8459 on data elements

On the occasion of the 2000 ISO Congress in Munich, Poul Henrik Jørgensen (Danish Bibliographic Centre) proposed that a common structure for all of the five parts of the ISO standard 8459 on data elements should be defined in accordance with FRBR.

1.3. Conclusion of Section one

There is an obvious interest in FRBR, though it is very different from country to country (Scandinavian countries, Italy and Australia are very much in advance in comparison with all other countries); besides, FRBR is used in formal training, which implies that more and more young librarians will be acquainted in the years to come with the IFLA model. Both facts are in favor of FRBR's playing a crucial role in future revisions of ISBDs.

2. FRBR's potential role in the revision of ISBDs

2.1. Is history a cyclical phenomenon?

It is of course always a bit dangerous to claim one is soothsaying future events by drawing "laws" from the past; there is however some striking analogy in the facts: the Paris Principles (1961) resulted in the creation of the first ISBDs, which in turn resulted in the development of specific cataloguing codes, for which different MARC formats have been designed so that different specific OPACs might work. In the very duality of its nature (it is revolutionary new and at the same time it relies on a firmly established tradition), FRBR might be held as a current equivalent for what the Paris Principles were once. Would it not therefore be possible to think that it might result in new ISBDs, which in turn would result in new cataloguing codes, for which new (XML-based?) formats would be designed which would allow new OPACs to be developed?

Economical constraints and mankind's natural tendency to be reluctant to changes when they are too profound and too sudden are some reasons why the only possible thing at the moment is to "revise" ISBDs. Which revision process actually has already begun.

2.2. Scope of the current revision of ISBDs

Current revision of the ISBDs only relies on conclusions from chapter 7 of the FRBR *Final report.* It therefore results only in very limited changes: it makes "optional" a number of data elements which were "mandatory" in the previous version of the ISBDs.

2.3. Potential contribution of FRBR to a more in-depth revision of ISBDs

2.3.1. Notion of *Work*

FRBR highlights the notion of *Work* more than it was formerly the case, and some commentators (among which Teresa Grimaldi) have stressed this fact. Will a future version of the ISBDs recommend to systematically and consistently handle *works* and *expressions* in records distinct from those describing *manifestations?*

2.3.2. Splitting the "traditional" bibliographic record into "information discrete units"

It often happens — even though not in all cases — that a document consists in several "subdocuments", the potential (sometimes actual) autonomy of which is totally denied by current cataloguing codes, because they only deal with the *manifestation* level. Let's consider a relatively simple case: a text written by author A, published with a foreword by author B, and illustrations by an illustrator. In current cataloguing codes, we — somewhat arbitrarily — assume that such a document is of interest above all because of author A's text, and everything else in it is held secondary. We therefore create a single, "flat" bibliographic record, with author A's name as a "main entry". "Secondary entries" allow us to retrieve author B's and the illustrator's contributions to this document, but do not acknowledge the mere fact that these contributions may have existed by themselves before or since the document was published.

If "revised" ISBDs recommended that each of these "subdocuments" were held as a *work* per se (which, as such, deserves a "main entry" in its own category), and that the FRBR "structural relationships" *(Work → Expression → Manifestation → Item)* applied to each of these *works,* we might have, in lieu of a single "flat" record, three discrete information units for the foreword, the text and the illustrations, which would happen to be gathered in the context of a given publication, but which would also allow us to identify the foreword as such if, for instance, the original manuscript is located in a given archive collection, or if it is reissued without the text it refers to (as in the case of Stéphane Mallarmé's foreword to William Beckford's *Vathek),* and to identify the illustrations as such if, for instance, they preexisted the text, or if they are exhibited in a museum.

There are therefore no "secondary authors", except collaborators. There are only main authors, but their intellectual responsibility applies to *works* which are regarded as "secondary" in a given context and may become "main" in another context, or to *expressions* (as is the case for translators). Our cataloguing codes should be supple enough to allow us to shift easily from one context to the other, and should no longer regard "books" as inevitably prevailing on "non-books", nor words as inevitably prevailing on pictures, nor notated music as inevitably prevailing on lyrics or librettos or performances, nor dramatic texts as inevitably prevailing on staged productions, etc. — all this only results from our intellectual laziness, our failure to apprehend reality just as it is, and our habit of working on only one kind of catalogue at the same time.

This enhanced accuracy in catalographic description might prove extremely useful in some digitization projects where only parts of documents are involved. For instance, in Bibliothèque nationale de France, the Music Department has a project of having covers of 19th century piano scores digitized, the importance of which as to graphic arts history has only recently been highlighted (and might well be greater than the importance of the scores themselves as to music history…).

2.3.3. FRBR, ISBD and OPACs

AIB has stressed the fact that using the word "navigate" in the FRBR *Final Report* implied that a catalogue is regarded from now on as necessarily automated. We may draw several conclusions from this fact — or rather, several questions:
— Should revised ISBDs include requirements about OPACs?
— Should revised ISBDs take into account a structuring at a higher level than that of the record, such as Rahmatollah Fattahi's "super-records"?
— Should revised ISBDs include requirements about the availability of bibliographic records from the Web?

2.4. Conclusion of Section two

The latter question leads us to address the issue of integrating description methodologies for heterogeneous information resources. All kinds of catalogues (libraries, archives, museums) are currently to be found on the Web — and this tendency will be ever growing in the future — and the Bath Profile is intended to allow users to retrieve information on all of them at once. Is it too early to contemplate merging, or at least making the ISBDs interoperable with other types of document descriptions, so that there might be not just some kind of "new ISBD", but a new concept (which logically should have been the oldest one): the concept of an "ISDD", "International Standard Document Description"? As Eeva Murtomaa put it last year ([Murtomaa, 2000]), "Could this be the beginning of a beautiful friendship" not only between libraries and archives, but with museums as well? In this regard, the ABC model is surely the one we may expect the most from.

3. General conclusions

Before the ABC model (or any other one) brings the catalogues of libraries, archives and museums together — this task will need several years, maybe several decades —, the IFLA Section on Cataloguing still has a crucial role to play on FRBR:
— Maintain the model (by examining and assessing requests for changes in the model, and by accepting or rejecting them);
— Keep informed about problems (and achievements as well, of course) of institutions who develop databases entirely or partially based on FRBR;
— Disseminate and popularize the model (by encouraging training initiatives and by getting information about what is being done; by ensuring consistency among those standards that rely on FRBR — a task which Tom Delsey ([Delsey, 2001]) has already begun to undertake for the ISO standards on international identifiers);
— Prepare the future on a longer term by preparing the merging or at least the interoperability of FRBR with other models.

On the occasion of a conference Elena Balzardi ([Balzardi, 2001]) has declared that the National Library of Switzerland "is not considering of introducing FRBR into their catalogue" but that they "must attentively watch what the global trends are, in order to react just at the right moment". This quotation should be thought upon as both a challenge and an encouragement: it's up to us, we should not disappoint expectancies aroused by the FRBR model!

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