

E-ventures: Notes and Reflections from the E-serials Field

**FRBR is Everywhere But What Happened To The Format Variation Issue? :
Content versus Carrier in FRBR**

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FRBR is Everywhere But What Happened To The Format Variation Issue? : Content versus Carrier in FRBR

Format variation seemed a pressing issue for several years, but now appears to be overshadowed by other topics, such as FRBR (*Functional Requirements for Bibliographic Records*). Has the question of how to deal with format variation been resolved or moved aside?

For serials cataloguers, there is no doubt that format variation has been a major issue especially when the format varies between print and electronic. In the absence of any foreseeable solutions, two different options evolved in the CONSER cataloguing community: “single record” versus “separate records” policies for describing serials¹. Each policy has its supporters, but the existence of two policies has brought about a certain amount of inconsistency in the catalogue, especially in those cases where a single catalogue combines some records created according to one policy and some according to the other. Now everyone is talking about the *Functional Requirements for Bibliographic Records* (FRBR).² Has format variation been forgotten? Or is this another way of looking at the same problem? Taking the case of the single record versus separate records approaches, and applying some of the insights gained from the FRBR model, one can see a convergence between the problems observed by front-line cataloguers and the insights offered by a sound theoretical framework. This convergence also indicates a possible direction for future resolution of the problem.

A quick review of recent developments may prove useful in the current discussion of format variation and FRBR. Although it is tempting to begin the review with the multiple versions debate of the early 1990s, a natural starting point seems to be the International Conference on the Principles and Future Development of AACR held in Toronto in 1997. Out of that conference came the impetus for the AACR community to find solutions to deal with certain key issues, such as seriality and content versus carrier, especially in the new context of electronic publishing.

After the 1997 conference, the Joint Steering Committee for the Revision of Anglo-American Cataloguing Rules (JSC) prepared a list of action items and one of these was:

Action: Solicit a proposal to revise rule 0.24 to advance the discussion on the primacy of intellectual content over physical format.³

JSC requested that ALCTS CCS Committee on Cataloging: Description & Access (CC:DA) study rule 0.24 and prepare a rule revision proposal. The CC:DA task force identified two aspects to the problem: 1) how to describe a bibliographic resource that has multiple characteristics and 2) how to deal with identical intellectual content existing on a variety of carriers, also called the format variation problem in their report⁴. Task force members agreed that any recommendation on how AACR should provide guidance on the format variation problem would have far-reaching consequences and accordingly recommended that JSC form another task force to focus on this issue alone. The current wording of 0.24 in *Anglo-American Cataloguing Rules, 2nd ed. 2002 revision* reflects the first stage of dealing with the content versus carrier issue; it responds to the multiple

characteristics aspect of the problem, and leaves format variation to a second stage of revision.⁵

JSC agreed with the recommendation and in 2001 appointed an international group called the JSC Format Variation Working Group (FVWG). The charge given to this group has changed over time, but it began with the charge to explore the viability and usefulness of “expression-level” cataloguing. This was, to a degree, a return to the multiple versions question, though approaching the question from a different direction. The 1999 CC:DA report, *Overview and Recommendations Concerning Revision of Rule 0.24*, in describing the format variation problem, describes it as the multiple versions problem.⁶ The FVWG’s approach to the charge was two-pronged: use FRBR as the theoretical basis, focusing especially on group 1 entities, and analyze actual bibliographic record sets to see whether “expression-level” cataloguing would be viable, with existing or new rules for description.

Some may wonder where “format variation” went, because the current work of the FVWG seems to focus on expression-level collocation and on ways to communicate mode of expression information in the bibliographic record. The work of the JSC Format Variation Working Group has been strongly influenced by the application of the FRBR model. The Group’s approach to the issue has changed over time, but if one looks briefly at the FRBR model, and how it can be applied, one can see that the work of the FVWG is still linked to the format variation problem.

The IFLA report, *Functional Requirements for Bibliographic Records*, presents an entity-relationship model that is shaping how we see and interpret the bibliographic universe. The aim of the model is to analyze the bibliographic record to determine which data elements allow the user to successfully complete the tasks of finding material, identifying and selecting the material appropriate to the user's needs, and acquiring or obtaining access to it. The model looks at entities, and their attributes or characteristics, as well as bibliographic relationships. Another document that is having a similar effect is Tom Delsey's *The Logical Structure of the Anglo-American Cataloguing Rules*.⁷ In mapping out the logical structure behind AACR2, Delsey identifies the key underlying concepts of the code, and brings to the surface anomalies that may undermine the basic principles. Both documents shed light on problem areas by unpacking or separating out elements so that one can see inconsistencies in the application of fundamental principles, and both suggest possible directions for future changes that would help ensure consistency with the fundamental principles.

The FRBR model, especially the sections dealing with group 1 entities, makes it easier to examine certain problems, such as how to deal with format variation. The group 1 entities are the products of intellectual or artistic endeavour: work (a distinct intellectual or artistic creation), expression (the intellectual or artistic realization of a work), manifestation (the physical embodiment of an expression of a work) and item (a single exemplar of a manifestation).⁸ Each entity has a set of attributes or characteristics associated with it. The FRBR model describes the entities and their attributes and focuses attention on bibliographic relationships.

FRBR is a new model, but the concepts are not really new. Cataloguers are familiar with the concepts of work, manifestation and item. The word “expression” does cause some panic at first glance, but the idea behind the entity “expression” is not new. In the AACR cataloguing community, we have been treating translations or arrangements of musical works as “expressions” for years. We may not have called them “expressions”, but we have treated them in a way that is consistent with the FRBR model. If one looks at the example of a translation of a literary work, the practice has been to make the same choice of heading as for the original work. The author/uniform title heading or the uniform title heading indicates the relationship of the translation to the original work. The addition of the name of the language of the translation indicates that there is a difference between the translation and the original work, though they both have the same intellectual and/or artistic content. The choice of heading and the addition of language are communicating a relationship between the bibliographic resources as being the same work, but different expressions of the same work.

In exploring the viability of expression-level cataloguing, the FVWG’s first observation was that AACR2 is a code of rules aimed at describing manifestations, with collocation happening as the second step with the choice of entries, etc. Not only do cataloguers create bibliographic records at the manifestation-level, libraries also select and acquire at the manifestation-level. A major consideration for any rule revisions is the impact on catalogues, both in terms of how records are created and how information is retrieved. No one is about to propose that we start controlling the bibliographic universe all over again.

Some careful thinking has to be given to the question of maintaining consistency and continuity with our legacy of bibliographic records. In its first interim report to JSC, the FVWG members observed:

On a practical level, a working cataloger will typically have one item in hand (in the physical or virtual sense) that needs to be cataloged. At the time that something is initially cataloged, one cannot know how many related manifestations will appear in the future, nor which data will be variable. The cataloger can only record from the manifestations that exist and are known. The cataloging exercise described above [in the report] to catalog at the expression level did not replicate a situation that is typical of that faced by working catalogers.⁹

Because of concern about the practicality of expression-level cataloging, the Group recommended not to continue exploring the creation of bibliographic records at the expression-level, but to focus instead on collocation in the display of bibliographic records. The abstractions “work” and “expression” are very important to the catalogue user, and records can be organized to display in such a way that bibliographic relationships are more explicit, whether between manifestations of the same expression, between different expressions of the same work or for relationships to different but related works, etc.

... we can continue to catalog the item/manifestation (item in hand), use existing bibliographic records, and display the manifestations in the context of their expression and work relationships when we decide it is necessary.¹⁰

Since Panizzi's day, collocation has always been seen as one of the main purposes of the catalogue. Communicating information about bibliographic relationships is also not a new idea.¹¹ With the FRBR model, the basic principles are identified and reinforced. The model suggests ways to introduce more precision in the collocation, such as differentiating between work-level and expression-level collocation. FRBR describes entities and their attributes. With the analysis of attributes, the FRBR model helps to clarify the level of difference and the level of relationship between bibliographic resources.

The terms of reference of the FVWG were revised by JSC in November 2001, to shift its focus from the creation of expression-level bibliographic records to improving collocation of manifestation-level records in order to make bibliographic relationships clearer to the user. The FVWG was charged with investigating the concept of the uniform title, and with exploring the use of a citation or heading for expressions in order to organize expression-level displays. (The group is currently working on rule revision proposals for chapter 25). In September 2002, the FVWG was also asked to investigate the possibility of using a term or device in the bibliographic record to communicate information about the mode of expression, in the description and in an expression-level heading. The group's focus has shifted from expression-level records to expression-level displays.

How does this change in focus relate to format variation? One needs to start by looking to see where format variation fits in FRBR? The answer, when one looks at the group 1

entities and their attributes, is that attributes such as form of carrier, extent of the carrier, physical medium, are considered manifestation-level attributes. Thus, a difference in attributes at this level signals a difference between manifestations, but it is not a difference that signals a new expression or a new work.

When looking at the FRBR model, much attention has been focused on expressions, and differences between expressions, though there are not many works that are realized in multiple expressions. When researchers at OCLC estimated the number of titles that would be affected in their database by applying FRBR, they found that 78% of works consist of a single manifestation, and 99% have seven manifestations or less.¹² Differentiating between expressions becomes very important for certain key works, for example, classic literary works, such as the plays of Shakespeare, or important treatises, such as Rousseau's *Du contrat social*, or sacred scriptures, or music.

What impact is the FRBR model likely to have on the day-to-day work of serials cataloguing? The need to differentiate between expressions rarely arises when cataloguing serials. However, the model also sheds light on differences between manifestations and on the relationships between manifestations in terms of whether they are the same expression and the same work.

The issue of format variation from the FRBR perspective can be seen as the attempt to communicate clearly the exact relationship between two manifestations of the same expression of the same work. The model emphasizes the closeness of the relationship

while at the same time differentiating between the manifestations. If one looks at the two current approaches to dealing with print and electronic journals, one can see a tension between pushing together into a single record and pulling apart into separate records. Leaving aside issues about batch loading, database maintenance, etc., an assessment of these two options in light of the FRBR model shows that each aims to accomplish some of the collocation and differentiation that the FRBR model encourages, though neither reaches the goal completely.

In the past decade, the serials cataloguing world not only had to deal with the novelty of electronic journals, but also to face a deluge of titles needing immediate attention. The short cut option of the single record approach became very popular with many libraries as a way to achieve some control. The single record option, as described in the *CONSER Cataloging Manual*, is also called the non-cataloguing approach and entails not cataloguing the electronic version, but signaling its existence on the print record.¹³ The description is based on the print journal, and the user is alerted to the availability of the content in electronic format, and is pointed to the electronic version. The other option is to catalogue the e-journal, thus making a separate record based on a description of the electronic resource, while also indicating the relationship to the print journal. Each option has had its strong supporters and there are convincing arguments for both options.

At first glance, these two options seem diametrically opposed. Yet both options aim to communicate information to users about the close bibliographic relationship between the print and the electronic journal.

The single record option emphasizes that the intellectual content is the same in both manifestations, and downplays the carrier of the electronic version. In a title index, the journal title appears once, and so the user is led to one record, where information about the print and electronic versions is presented in the same place. While AACR2 is very much geared towards one record per manifestation, the rules also place great emphasis on choice and formulation of headings in order to promote collocation in the catalogue. The single record approach responds to the need for collocation, a fundamental principle underlying the catalogue. However, it aims to ensure collocation, not by the grouping together of records, but by adding a pointer to the electronic version on the print record. The bibliographic relationship between the print and the electronic journals is communicated to the user. This approach does not provide any description of the attributes of the electronic version, nor does it record any bibliographic relationships that the electronic version may have to other resources that are not also shared by the print resource. The electronic version is not clearly visible in the catalogue as a separate manifestation.

Using the separate records approach, the print and the electronic manifestations each have their own record. The bibliographic relationship between the two is communicated through notes and linking fields, and through the use of uniform title. The CONSER guideline is: “Add a uniform title if the title proper is the same as the print version and qualify with “Online”. With a large proportion of titles being the same, and widespread following of CONSER guidelines, the uniform title with qualifier is found in many

records. In a title index, there are two entries, and the user knows already at the index level that there are different versions of the same title. Each record fully describes the attributes of each manifestation, as well as indicating the bibliographic relationship to each other. The user does have to look at two different records to know about both the print and the electronic versions.¹⁴ The separate records approach means that the user has access to a full description of each manifestation, and through collocation as well as notes and linking fields is able to understand the bibliographic relationship between the versions. The record for each manifestation contains some information that is the same as that on the record for the other version and also contains information specific to the manifestation. The combination of separate records and the use of the qualifier in the uniform title communicates that the manifestations are different from each other. The disadvantage of the approach is that, even with appropriate collocation in the indexes, the separate records approach tends to emphasize the differences between the versions.

The collocation of separate records in OPACs should be straightforward, but there are problems in some library management systems, especially for short titles of commonly used words such as “nature”, when the indexing does not take into consideration the implications of a parenthetical qualifier as opposed to other words in the title. For example: Nature, Nature (Online), Nature alert, Nature biotechnology; in some OPACs, these will index in this order: Nature, Nature alert, Nature biotechnology, Nature (Online). This shortcoming in the indexes over-emphasizes the separateness of the manifestation records, and obscures the bibliographic relationship between two manifestations of the same intellectual content.

The single record approach guarantees that the relationship between the versions is clear, at the cost of omitting a description of the electronic version. It relies on the assumption that there are sufficient attributes in common between the two versions to communicate information to the user, and functions in a satisfactory manner as long as the print version exists and the two remain manifestations of the same expression. The separate records approach means that each manifestation is fully described, and that each manifestation's relationships to other resources are indicated, but may not achieve sufficient collocation in current OPACs. A FRBR-based display in the next generation of OPACs could overcome some of the drawbacks in each approach and allow for a grouped display of records clearly indicating that the print and electronic versions are different manifestations of the same expression of the same work.

The FRBR model highlights the closeness of the relationship between the print and the electronic journal. The two versions share the same intellectual content and are realized in the same expression. In mapping out the group 1 entities and describing their attributes, the FRBR model makes us think about the delineation between entities: what is a new manifestation, a new expression and a new work. Some of these questions are very familiar to AACR cataloguers, and are not necessarily resolved by the model alone. However, in the cases where the print and electronic versions are clearly manifestations of the same expression, ensuring collocation at the appropriate level is important. At the same time, they are different manifestations, and the values for certain manifestation-level attributes may be quite different for each one. In addition, they may share some but

not all bibliographic relationships. Thus describing each manifestation is also important for the user to be able to find, identify and select.

There is a significant tension between the single record and the separate records options. The FRBR model offers a way to satisfy both requirements. A catalogue based on the FRBR model can collocate at the work-level and also at the expression-level. It can organize the display so that the user sees a cluster of records for all the manifestations of the same work (the same intellectual content), also displaying information about work-level attributes. This cluster is organized so that manifestations of one expression of a work are separated from manifestations of another expression of the same work, and information about expression and manifestation attributes can be displayed in appropriate places. If only one expression exists, then the manifestations of that one expression would be grouped together. The format variation problem is basically a question of how to show the relationship of print and electronic versions as realizations of the same intellectual content, while also communicating information about the format, so that the users can choose resources appropriate to their needs. By having four group 1 entities, the FRBR model allows for more precise collocation while at the same time ensuring that information about attributes of the work, expression, manifestation and item are communicated to the user in a clear way.

Has the question of format variation been overshadowed by FRBR then? Definitely not. FRBR offers another way of looking at the same problem and indicates a way to resolve it. The format variation issue demonstrates the benefits of applying the FRBR

model, but the FRBR model will have an impact far beyond resolving the format variation issue.

NOTES

¹ *CONSER Cataloging Manual*. 2002 ed. Washington : Library of Congress, Cataloging Distribution Service, 2002- , module 31, p. 16-18. (Also in the earlier edition)

² IFLA Study Group on the Functional Requirements for Bibliographic Records. *Functional Requirements for Bibliographic Records*. Munich: K.G. Saur, 1998.

(<http://www.ifla.org/VII/s13/frbr/frbr.pdf>)

³ International Conference on the Principles and Future Development of AACR (1997 : Toronto, Ont.), *The Principles and Future of AACR*. Chicago : American Library Association, 1998, p. 253.

⁴ ALCTS CCS Committee on Cataloging : Description & Access. *Overview and Recommendations Concerning Revision of Rule 0.24*, August 16, 1999. (JSC document, 4JSC/ALA/30) (<http://www.libraries.psu.edu/tas/jca/ccda/tf-024h.pdf>)

⁵ Text of rule 0.24: It is important to bring out all aspects of the item being described, including its content, its carrier, its type of publication, its bibliographic relationships, and whether it is published or unpublished. In any given area of the description, all relevant aspects should be described. As a rule of thumb, the cataloguer should follow the more specific rules applying to the item being catalogued, whenever they differ from the rules. (AACR2R 2002 revision)

⁶ *Overview and Recommendations Concerning Revision of Rule 0.24*, p. 3.

⁷ Tom Delsey, *The Logical Structure of the Anglo-American Cataloguing Rules*, August 1998. (<http://www.nlc-bnc.ca/jsc/docs.html#logical>)

⁸ IFLA Study Group on the Functional Requirements for Bibliographic Records. *Functional Requirements for Bibliographic Records*. Munich: K.G. Saur, 1998, p. 12.

(<http://www.ifla.org/VII/s13/frbr/frbr.pdf>)

⁹ Joint Steering Committee for the Revision of AACR. Format Variation Working Group, *Interim Report, October 8, 2001*. (JSC document, 4JSC/Chair/71/followup) p. 7.

(<http://www.nlc-bnc.ca/jsc/forvarwg3.pdf>).

¹⁰ Ibid, p. 14

¹¹ See also Denton's paper describing how FRBR embodies the fundamental laws and objectives of cataloguing and librarianship: William Denton, *FRBR and Fundamental Cataloguing Rules*, May 2003. (<http://www.miskatonic.org/library/frbr.html>).

¹² Rick Bennett, Brian F. Lavoie, Edward T. O'Neill, "The Concept of a Work in WorldCat : an Application of FRBR," *Library Collections, Acquisitions and Technical Services*, 27:1 (Spring 2003) p. 49.

¹³ "CONSER members may choose not to catalog online versions separately, but rather to note the existence and electronic location of the online version(s) in the record for the printed serial (or, lacking that, in the record for another format, e.g., a CD-ROM serial)" (*CONSER Cataloging Manual*, 31.2.5.A).

¹⁴ The use of the qualifier in the uniform title can assist users in selecting the version appropriate to their needs, though not if the criterion for selection is the volume holdings available.