68th IFLA Council and General Conference
August 18-24, 2002

The Basis for a Record in Major Cataloguing Codes and the Relation to FRBR

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Abstract:

A truly global supply of bibliographic records and the emergence of online publishing put new challenges on our organization of bibliographic control. Three, important cataloguing codes are presently under revision, the AACR, the Italian RICA and the German RAK. The basis for a record, the carrier-content dichotomy, is one, fundamental issue, which has been particularly observed in the AACR revision process, strongly influenced by the IFLA report Functional Requirements for Bibliographic Records (FRBR), 1997. Is it possible to move from "Manifestation records" to "Work records"? The answer seems to be no, and the conclusion is that the Manifestation record is more needed than ever, but that information on Works and Expressions is urgently needed as well, and that we must expand authority information considerably if we shall be able to give proper guidance to our users. FRBR offers a model and a language which can help to bring about the common understanding which is the first prerequisite of information interoperability.

The cataloguing discussion at the international level has intensified during the last decade. Presently, several, big cataloguing communities are discussing or carrying out revisions of their rules: AACR2, the German RAK and RICA, the Italian rules. I see two, main factors driving this development.

The cataloguing environment today is global. The use of integrating search protocols and search interfaces on the Internet and new techniques of record discovery and record import have given more

realism to the utopian goal that a bibliographic resource shall only be described once, this record to be used by every library that needs it. Much money has been spent over the years on conversions between systems. Machine readable formats have been in the centre of this activity. We have, during the 1990s been through a partly bitter format battle, which now has been closed, at least for the time being. As the dust from this battle slowly settles, we are turning the focus towards cataloguing, because this is really the area where we need to agree and come together, if interoperability, shall be possible. A common structure doesn't achieve anything if we do not agree on the contents of the structure.

Another important factor is the emergence of electronic publishing on the Internet during the 1990s. This area presents a whole raft of problems which cataloguers have not had to face before, most of them connected with the dynamic and volatile nature of digital publishing, which, by the way, I don't think can be solved to any satisfaction until there is a general and at least in principle working equivalent of legal deposit for this publishing environment. On the other hand electronic, or digital, publishing also offers new opportunities to work with the producers to generate bibliographic data directly from the full text of documents, and we witness today a better understanding from the producers' side of the importance of providing basic, bibliographic data.

It is logical, under such circumstances, that cataloguing codes are analysed and revised, and this situation offers an opportunity to investigate whether harmonizing of different codes is achievable. In this context I put a third influential factor, the existence of the report *Functional Requirements for Bibliographic Records* (FRBR), which was presented at IFLA in Copenhagen in 1997, and since then has inspired both a theoretical analysis of existing cataloguing codes, especially the AACR2, recently extended even to the MARC21 format[i], and experiments with database structures, in order to arrive at more userfriendly solutions. The emergence of FRBR is proof of the need to apply a common, conceptual framework to cataloguing processes brought about by the developments hinted to above. As Elaine Svenonius observes in a recent book, "the emergence of global cataloguing" makes an ontology necessary[ii]. FRBR now in itself is a factor driving the development. It has contributed to the theoretical understanding of the cataloguing activity among cataloguers around the world, and it has become a framework, or an inevitable point of reference, for catalogue revision projects undertaken since its publication.

In the light of FRBR I will look at three cataloguing codes, AACR2, the Italian rules, RICA and the German rules, RAK. I will focus on one aspect only. It is, however, a fundamental one, the basis of a bibliographic record. I'm talking about the old content-carrier dichotomy, which today even has to be extended to the different Manifestations in which electronic resources may appear.

I will take my point of departure in AACR2, because this is the only one of the three codes which has an explicit rule to guide cataloguers as to what should determine the descriptive focus of a record. This rule, to be found in paragraph 0.24, does not clearly distinguish between published and unpublished materials, as AACR2 covers all types of material.The rule is subject to slightly differing interpretations within the AACR2 community. Most notably, the Library of Congress has chosen to treat reproductions in microform according to the format of the original and account for the microform format in a note.

When you compare 0.24 with FRBR, it is clear that the rule is rather Item oriented than anything else. Although a cataloguer normally works from one single Item of a Manifestation, the normal approach is to assume that this Item, this copy in hand, represents a class of Manifestations, so that you describe the Manifestation rather than the Item, the edition rather than the copy. – Now, it isn't possible to map Manifestation to edition only, but a Manifestation of which there are multiple Items clearly corresponds to edition at a principle level. We are not in the habit of making separate records for every Item of a Manifestation, that would be absurd, and 0.24 has not been interpreted to mean that. The strong focus on carrier, however, and the lack of distinction between the requirements for published and unpublished material, has given rise to controversies and different practises. For the Toronto conference about AACR in 1997, Lynne Howarth made a comprehensive analysis of the problems with 0.24 and also a forceful plea for a switch to a Work oriented approach[iii].

In my view, it is rather the failure to recognize the different requirements put by published and unpublished, than the strong focus on carrier, which has been problematic with 0.24. Whatever you do in cataloguing, you have to identify a carrier at some level.

To take part of a Work, we must get hold of an Item of a Manifestation embodying an Expression of that Work. There's no way around that, and let me stress that this goes for Internet resources as well. – That we do not touch them with our hands, doesn't mean that they lack a physical existence. They do exist as specific combinations of electric charges on disks.

As one consequence of FRBR, the principles underlying AACR2 are under intense discussion within the AACR2 community. One result of these ongoing discussions is a new, but probably still intermediate, phrasing of 0.24. The ambition is to move the focus from carrier to content. It also introduces the important distinction between published and unpublished[iv]. In ontological terms, maybe, monoform and polyform would be more adequate concepts[v].

On remit from the Joint Steering Committee (the JSC) of AACR, a working group has experimented with Expression based cataloguing, and their experiences are available on the home page of AACR. Their findings, so far, do not support the Expression oriented approach. Instead, they are turning back to the Manifestation, as the solid ground for a record, and envisages different means to derive the Expression and Work information as a distinct layer, when needed, by other methods.

What guidance do we find then, to the question of when a new record for the same content is required? One of the JSC group members, Pat Riva, states that there is no explicit guidance in the present rules in AACR2, but "It is inferred that if the description would be different than any already in the catalogue, that a new record is needed"[vi]. I would amend that conclusion slightly and say that if the description would be more than marginally different, we need a new record. As a matter of fact, we may safely assume that many of our existing records do cover similar but still different Manifestations, which we are not even aware of. We can only establish identity of the descriptive elements which are recorded in a record and assume that the rest is identical as well, which might not always be the case. This is an underlying condition for all cataloguing, and it occurs at all levels of description, although it does occur more frequently at the lowest descriptive level, of course. By the way, this is a well known problem in cataloguing hand press imprints, where it is often less confusing for the user to get minor differences between Manifestations embodying substantially the same Expression described in a note in a single record than to have different records for all such cases. Well, isn't such a record an Expression record? No, you should rather call it collocating at the Manifestation level. It is a practical way of recognizing the specific requirements of polyform Manifestations, which may comprise slightly different classes of Items.

The Italian rules, RICA, represent another family of cataloguing codes, and they demonstrate a firmly Manifestation oriented approach. The aim of the catalogue is stated as identifying the different editions of a work, and the copy in the cataloguer's hand should be considered as representative of the edition. The rules common to all types of publications are kept together (although the requirements for printed publications, that is, polyforms, are admittedly best catered for) and there are additional rules for other carrier formats. The current Italian rules already have levels, which correspond to Work, Manifestation and Item. The Work level is represented by an authority record for title. Italy, as well, is presently discussing a revision of their rules and the FRBR model plays an important role in these discussions. The concept of Expression is particularly extensively analysed, and the conclusion for the time being is not to include it in the cataloguing code, because it doesn't address the requirements of editions, that is polyform Manifestations, and because they do not find the demarcation between Expression and Manifestation sufficiently clear[vii].

Turning to the German rules, RAK, it isn't possible to find anything as explicit as 0.24. RAK does state, however, that the copy in hand should be considered representative of an edition, or probably rather of editions and issues of an edition[viii]. RAK isn't absolutely clear on this point, but it is still obvious that the attitude is Manifestation oriented and clearly focussing on published material, again, polyform Manifestations. The rules for design of headings and the complementing rules for different carrier formats do not change the conclusion that the Manifestation is the basis of a record, although it

isn't explicitly stated in the code. RAK also defines "Werk", work, and this definition has been a little more emphazised in the revision draft, but it doesn't quite translate to Work in the FRBR sense.

FRBR does not make such an explicit appearance in the German revision process as in Italy, but it was brought up in the so called REUSE discussion in the late 1990s, which analysed the requirements and consequences of a format switch, from the German MAB to MARC21. If the Manifestation oriented attitude towards the revision of 0.24 is maintained, we will have a uniform basis for record creation in these three cataloguing codes, the AACR2, RAK and RICA, which is of course of vital importance to co-operation and interoperability.

It doesn't quite solve the problem concerning online documents, however. With web documents, we get a plethora of different and in a way immanent Manifestations which embody the same Expression. The producer provides his basic document file with different sets of layout filters, or graphical interfaces, from which the user is free to choose, HTML or PDF, e.g. You could say that the publication is a monoform with potential polyformity. Multiplication is left to the users, we get user driven Items of the Manifestations – or, do we get user driven Manifestations? We must also remember that the basic file might well be the only Manifestation we will be able to save for the future. It is interesting in this context to look at the results of the revision discussions in Germany. The concept of edition, or "Ausgabe" is applied to the digital environment, and different appearances of an electronic publication which are to be considered as copies representing the same edition are listed[ix]. The results of user driven multiplication as well as format variants adapted to different reading conditions are to be considered copies of the same "Ausgabe", whereas the products of publisher driven, simultaneous publishing online and on paper are to be treated as separate editions.

A typical example is the situation we face in my library with e-books, which we collect according to agreements with publishers. When we get PDF-files, we usually get one PDF for print and one for screen viewing. Those are clearly two different manifestations, we save them as two, distinct files, and they have different ISBNs. Still, in the database for external users we have preferred to register them in a common record, performing much the same manually as the Network Development and MARC standards office at the Library of Congress demonstrated recently in *Displays for Multiple Versions from MARC21 and FRBR[x],* which lists manifestation details under a work-expression heading. This procedure is also in accordance with the German rule revision drafts mentioned above.

Internally, however, we need to have separate records with the proper file names and some other, technical information attached as well, and this is a basic need which we foresee if we shall be able to administer the electronic archive in a long-term perspective. A record at the Manifestation level is more needed than ever. On the other hand, it isn't sustainable in the long term to maintain both an internal and an external bibliographic database for electronic files, even if, as in our case, the producer has provided the records for the internal database. I see the future solution in the kind of user display application which the JSC working group points to as the "Table of Reference" Model[xi], where you build an application layer, with the help of which you can create collocating displays for the user when needed, and I think it is going to be needed much more frequently for online documents than for traditional publications. This solution would also probably support simpler ways of record exchange than the complete reshaping of the record.

The problem is similar regarding the common procedure to make a traditional print edition and an online document available to the market simultaneously. Although they are clearly different Manifestations, they most probably embody the same Expression, and users would undoubtedly be best served by the kind of collocated display described above, but the two manifestations might be present and catalogued in different institutions. How can we support record exchange and make sure that records are matched correctly? Even here records for the Manifestations which are more than marginally different seem to be the safest route.

It is managable, although not quite easy, to handle documents produced and marketed by a publisher. But the line between the completely publisher driven print on demand product and a variety of user manufactured print on demand outputs is a blurred one[xii]. There is presently a lot of confusion among cataloguers about what the record should describe, and, more importantly, there is a lot of

confusion among library users about what Works they will find in which Manifestations. Just as I think a surrogate microfilm, produced within a library for preservation reasons, should be recorded in the holdings statement as copy specific information, I think a local printout of an online file should be treated that way.

We also must face the situation with many Manifestations which embody slightly differing, or updated Expressions. It is very easy to correct things in an online file, and especially one of our publishers indulges in this freedom and sends us updates. They represent changes of a kind undoubtedly occurring even in new printings in the paper world, which we do not produce new records for. Contrary to the print world, it is easy to keep track of the differences and establish a chronology for the changes, but there is no rational provision for that kind of information in any of the cataloguing codes in focus here. Dates added to the standard identifier might be one way of tackling this problem.

When grappling with the online challenges, we see that FRBR can offer a structure for assigning priorities to cataloguing efforts. Applying the model strictly, however, would be difficult. I think there is need for a special study of the Manifestation – Item relation in this context, and the approach in the RAK draft mentioned above is worth further analysis. Above all, however, we still need more practical experience and more discussion about how to best handle online documents in our catalogues.

Well, if I return to the conclusion that the Manifestation still must form the basis of the bibliographic record, what about the content? In traditional cataloguing we have been relying on the bibliographic record to describe the Manifestation and the Work simultaneously, and even if the Work level often has suffered it has worked, more or less. When bibliographic databases grow bigger and bigger, however, it is obvious that we need to separate these functions. It doesn't mean that we should concentrate our efforts on Work records instead, it would just be turning the problem upside down. Work and Expression records must by nature be authority records and cannot replace the Manifestation record, the bibliographic record. What it does mean, however, is that extended authority work is necessary as well as approved database structures to handle much more complex authority relations. FRBR proposes a structure for handling and linking content information which requires authority records at a much larger scale than what we have been accustomed to. There is also a need for identifiers in this area, which was emphazised in the discussion during the ELAG conference in Rome this year, and which has also been discussed by Patrick Le-Boeuf in a recent article[xiii]. There is a huge amount of work ahead, which does scare library managers. We all know, however, that, in the long run, authority work saves time and resources both for cataloguers and for users. I see it as a necessary investment for the future. Obviously, it is of utmost importance for this work to have the results of the FRANAR working group[xiv].

FRBR also, no doubt, needs further development. The problems regarding the Expression entity identified in the Italian discussion paper referred to above[xv] should be taken seriously. They point to the impossibility of identifying the Expression at anything but a very principle level. I agree that Expression, as it is defined, covers too much. It covers both the very abstract level of, let's say a translation and also every specific rendering of that translation. In cataloguing we are concerned with the abstract level, but very seldom with the exact rendering of an Expression. That level is not included among the mandatory elements in any of the cataloguing codes I deal with here. The FRBR report actually recognizes this circumstance[xvi], but it would be more satisfactory if this recognition was brought into the model itself. The Italian commission also emphasizes the unclear demarcation between Expression and Manifestation. I do appreciate this difficulty, but this is an inevitable enigma in an ontology which describes both an abstraction and a physical entity which constitutes the embodiment of this abstraction. I see a more fundamental difficulty in the way FRBR aspires to cater for all kinds of intellectual creations. As a matter of fact, it is similar to the scope of AACR, and like the former expression of 0.24, FRBR in its present state, does not acknowledge the requirements of published material sufficiently. I think that the FRBR model is a very good start but has to be developed, or, maybe, we have to develop subsidiary models for the different areas of the bibliographic universe in which we wish to apply the model. To be able to handle multiplied Manifestations, which after all do comprise most of the material we deal with in our bibliographical

databases, the model needs to be extended to take account of the fundamental differences between monoform and polyform Manifestations. It is also clear that FRBR, contrary to its explicit ambition to cover electronic resources, does not provide enough guidance for the digital environment.

My conclusion is, nevertheless, that FRBR does offer a conceptual framework which has the power to bring different cataloguing codes in closer harmony and thus promote interoperability. This is not because FRBR brings anything exactly new to the discussion, it is because it makes the inherent categories in the cataloguing task visible. It offers us a language in which to discuss the problems, and even if this language is not yet completely mature and comprehensive, it is obvious that it is needed and already has had a considerable impact on the international cataloguing scene[xvii]. To paraphrase a statement by Elaine Svenonius, FRBR might "provide the uniformity of perception needed to automate the operations involved in organizing information"[xviii]

[i] Tom Delsey, *The Logical Structure of the Anglo-American Cataloguing Rules*, prepared for the JSC, part 1, August 1998, PDF file available at http://www.nlc-bnc.ca/jsc/aacr.pdf, part 2, January 1999, PDF file available at http://www.nlc-bnc.ca/jsc/aacr2.pdf; *Functional Analysis of the MARC 21 Bibliographic and Holdings Formats : Prepared for the Network Development and Marc Standards Office, Library of Congress*, January 4 2002. PDF file available at http://www.loc.gov/marc/marc-functional-analysis/home.html.

[ii] Elaine Svenonius, *The Intellectual Foundation of Information Organization*, Cambridge, Mass. 2000, p. 31.

[iii] Lynne Howarth, *Content versus Carrier*, in International Conference on the Principles and Future Development of AACR, Toronto, Canada, October 23-25, 1997. PDF file available at http://www.nlc-bnc.ca/jsc/rcarrier.pdf.

[iv] AACR Joint Steering Committee, News & Announcements : Outcomes of the Meeting … March 2000. http://www.nlc-bnc.ca/jsc0003out.html. New phrasing of 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 realtionships, 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 general rules."

[v] I borrow the terms "monoform" and "polyform" from the field of textual criticism and in particular from the work of Rolf Du Rietz, *Den tryckta skriften : Termer och begrepp …* Uppsala, 1999.

[vi] JSC Format Variation Working Group : Interim Report, October 8, 2001, p.27. PDF file. http://www.nlc-bnc.ca/jsc/.

[vii] *L'applicazione del modello FRBR ai cataloghi: problemi generali e di impiego normativo,* Commissione RICA, Word file dated 2001-10-22, http://www.iccu.sbn.it/rica-frbr.doc.

[viii] German, like Scandinavian languages, has two different words which translate into "edition". The difference is not commented upon in RAK, but there is some indication that the most general concept is implied.

[ix] Draft for RAK2, *Grundbegriffe,* kindly made available to me by Monika Münnich, in January 2002.

[x] Version referred to dated 2002-03-25, http://www.loc.gov/marc/marc-functional-analysis/multiple-versions.html.

[xi] JSC Format Variation Working Group : Interim Report, October 8, 2001, p.8 passim. PDF file. http://www.nlc-bnc.ca/jsc/.

[xii] Cfr Lynne Howarth, paper cit., p. 10: "As computer-based technologies and computer-supported applications continue to evolve, and as electronic and other `virtual´ resources proliferate, the boundaries that separate the physical formats in which information is packaged will become increasingly blurred."

[xiii] Patrick Le-Boeuf, "FRBR and Further", in *Cataloging & Classification Quarterly*, 32(2001), No 4, pp. 15-52.

[xiv] Working group on "Functional Requirements and Numbering of Authority Records", created in June 1999 under the auspices of the Division of Bibliographic Control and the IFLA UBCIM Programme.

[xv] See note vii.

[xvi] *Functional Requirements for Bibliographic Records*, München 1998, p. 19. (UBCIM publications; N.S., Vol. 19) ISBN 3-598-11382-X.

[xvii] This has been comprehensively demonstrated by Patrick Le-Boeuf, see e.g. his "The Impact of the FRBR Model on the Future Revisions of the ISBDs: a Challenge for the IFLA Section on Cataloguing", paper presented at the 67th IFLA Conference in Boston 2001, published in *International Cataloguing and Bibliographic Control*, 31(2002), No 1, pp. 3-6, and his article "FRBR and Further", in *Cataloging & Classification Quarterly*, 32(2001), No 4, pp. 15-52.
[xviii] Elaine Svenonius, *The Intellectual Foundation of Information Organization*, Cambridge, Mass., 2000, p. 34. – The statement in its original context applies to operational definitions of bibliographic entities.