**To**:  Chris Oliver, Chair
      FRBR Review Group

**From**: Dominique Bourassa, Chair
        ALA/ALCTS/CaMMS/Committee on Cataloging: Description and Access (CC:DA)

**Subject**: CC:DA Review of the FRBR-Library Reference Model

The Committee on Cataloging: Description and Access (CC:DA), the unit of the American Library Association responsible for developing official positions on international cataloging Standards, appreciates the opportunity to comment on the draft of the FRBR-Library Reference Model (hereafter FRBR-LRM), as invited by the the FRBR Review Group on 28 February 2016. CC:DA has charged a Task Force to undertake a thorough review of the FRBR-LRM and to submit a report for discussion and approval by the CC:DA membership. A roster of the Task Force is included at the end of this report.

## General Comments:

The entire document requires general editing according to a set of style guidelines and in order to bring the document in line with standard English usage and provide better clarity of intent. A specific list of edits is included in the penultimate section of the report.

The document states that it's a "high-level conceptual reference model" based on "entity-relationship modelling" (2.1). The document needs to explain what these terms mean and reference the standards for these models and concepts.  In order to judge the model on its own terms, the reader has to know what language it is speaking and what rules it is following.  Other terms that need to be defined are: "end user," "cardinality," "sub-types," "domain," "range," "superclass", "instance", "instance of an entity", and "disjoint entity". For example, "domain" and "range" have specific meanings in mathematics and are used in many other fields as well, but in 4.3.1 they are possibly being used in the RDF sense, but this is nowhere stated, and RDF is not (yet) part of the ordinary vocabulary in the library field, the presumptive audience of this document. A glossary of terms and acronyms would greatly improve legibility and comprehension of the document, and is strongly recommended. References to outside documents, such as in 2.4, should be supported by footnotes.

Most members of the Task Force firmly oppose limiting the entity "person" or any of the other subentities of "agent" to "real" individuals or entities, that is, entities that exist or have existed in the real universe. This contradicts the "principle of representation". The model needs to allow accurate description of the bibliographic universe, in which non-human and fictitious entities are represented as capable of agency. We suggest replacing "Person" with "Individual" in the model. This change would increase the model's flexibility to accommodate the needs of diverse communities.

## Specific Comments:

**Chapter 2: Methodology**

**2.1**
Paragraph 3: "The model aims to uncover general principles behind the logical structure of bibliographic information …"

This sentence implies that general principles exist, and that there is only one logical structure for bibliographic information, an implication with which we disagree. We suggest rewording the sentence as" "The model aims to present general principles behind a logical structure of bibliographic information ..."

**Chapter 3: Users and User Tasks**

**3.1**
How were the needs of users considered? References are needed here to specific research or studies used to determine user needs.

**3.2**
We appreciate the addition of "Explore" to the user tasks and the mention of "browsing" in the scope notes (Table 3.2).

**Chapter 4: Model Definition**

**4.1.1**
The "IsA" relationship appears to come from some other model or vocabulary which should be named and explained. This term also appears in 4.3.1.

**Table 4.2**

Generally, we would like to see more non-print examples in LRM-E1-E5.

The entity name *Res* was found to be problematic in English, partially because the singular and plural forms are the same. This results in unclear statements when *Res* is plural. We suggest a non-Latin term be considered.

LRM-E3: The phrase "distinct constellations of signs" is ambiguous and does not convey meaning in this, or conceivably any, context.

LRM-E7/E8: As previously noted, the Task Force explicitly rejects the idea that agents must be real persons. We raise two specific instances as examples here:

> Non-human Agents: when a human facilitator puts out canvas and paints for an elephant to create a painting, and the model requires us to assign creative agency to that human instead of the elephant, then if a painter's apprentice puts out his canvas and paints, do we then assign creative agency to the apprentice rather than the painter?

> Fictitious Collective Agents: If agents may not be fictitious, then presumably collective agents must also be "real". How then do we account for Spinal Tap or Camilla and the Chickens (Muppets)? Does the model accommodate the idea that a "fictional" collective agent is really not fictional as long as it refers to a group that produces real works, and functions like the group equivalent of a pseudonym for an individual author?

LRM-E9: We would like to see more details concerning why *Nomen* is an entity rather than an attribute, and also a 'how' statement acknowledging its issues, but recognizing its advantages as well. This type of explanation at the beginning of the document would help set the stage for the rest of the document and help readers better understand the model's point of view.

LRM-E10: With the same resolve that we advocate fictitious agents, we strongly oppose excluding "imaginary, legendary, or fictional places" from the "Place" entity. We suggest adding the attributes "fictitious", "real", "unknown" and "undeclared" attributes of most entities so that it could be applied to works, persons, families, places, etc.

LRM-E10: We disagree that Halley's Comet is a place, rather than a thing, and believe this example does not add clarity to the entity and should be removed from the list of examples.

LRM-E11: The entity "time-span" is the only entity available in the model to express time-based events, no matter how brief. This contradicts common understanding. It means that any event

can have a beginning and an ending attribute (see LRM-A36 and A37), so not only would a person's entire lifetime have a beginning and an ending time-span, but a person's death would also have a beginning and an ending time-span. This might be useful in some philosophical model, but ISO 8601 makes a useful distinction between time point and time interval. A time point can be expressed with varying levels of precision.

**Examples**: If the NB is present here it also belongs under LRM-E10 "Place".

### 4.2.3
Last paragraph, page 25: It is incongruous to include format examples (MARC, UNIMARC, etc.) in a high-level conceptual model.

### Table 4.3
The examples under LRM-A2 that do not apply to all the entities under *Res* should be removed and listed under the entities to which they do apply. The explanations would be simpler if notes were defined for all entities so that the examples could be placed under the appropriate entity.

LRM-A3: We recommend the addition of popular music genres such as "Funk music" or "Soul Music" be represented in the list of examples.

LRM-A5: The scope notes are inadequate to explain the use of the attribute. For further discussion, please see discussion below under "5.4 Representative Expressions" .

LRM-A10: "Key" is found to be a restrictive term focused on Western art music. We recommend renaming the attribute either "pitch structure" or "tonal system" to fully incorporate non-Western musics.

LRM-A13: The scope notes account for only a "general type of carrier". We are unclear which part of the model allows for capturing a more specific type of carrier, for example: audio disc, compact disc, or 78 rpm phonodisc.

LRM-A16: Treating a manifestation statement as an attribute seems to be backwards. A manifestation statement is a construct formed on the basis of cataloging rules that bring together one or more attributes of a manifestation as part of a bibliographic description. It shouldn't be part of a conceptual model.

LRM-A22: "Field of activity" needs more examples as one is insufficient to clarify the attribute.

LRM-A22/A24: It is unclear why these attributes are not, instead, relationships. A problem arises that "Persons" as "Agents" may have a have a "Field of Activity" and a "Person" can also have a

"Profession/Occupation". Therefore "Profession/Occupation" appears to actually be a sub-attribute of "Field of Activity". For example, "Johann Gutenberg is a printer" and "Sun & Faye Printers is a printer" is telling the same sort of information about each entity, but one is about a person and the other's about a corporate body

LRM-A28: The "definition" given here seems more appropriate to put in the scope notes, and a definition should be added to the definition box.

LRM-A29: It is unclear why "Reference source" is only available for the *Nomen* entity, as it would be useful for other entities as well.

**Table 4.4**
LRM-R4: It is unclear how the cardinality of '1 to many' would work in the 'manifestation is exemplified by item' relationship in cases where there is a 'bound with' item that may contain multiple manifestations.

LRM-R5: We appreciate the use of the word "created" to describe the activities of agents at the expression and manifestation levels. However, we would like to see popular music better represented at the work and expression levels. We suggest, for example, Led Zeppelin's song Communication Breakdown from their album Led Zeppelin, which could serve as examples in this table with Led Zeppelin as the agent at both the work level and the expression level.

LRM-R13. Technically, the cardinality of the "has Appellation" relationship is incorrect. As mentioned earlier in defining *Nomen*, instances of polysemy and homonymy result in the same sequence of symbols (i.e. same *Nomen*) corresponding to different *Res*. In practice, we modify preferred NOMENs so they uniquely point to their respective *Res*, which makes the supplied cardinality true. This circumstance needs to be explicitly addressed.

LRM-R19: The examples of derivations of *Nomens* are the same ones given as equivalents of *Nomens* in LRM-R17. Can they be both? Is there a useful distinction between R17 and R19?

LRM-R25: All of the examples illustrate the "derived from" relationship. We suggest adding an example of the "derived into" relationship for clarity.

**Chapter 5: Model Overview**

**5.2**
We appreciate the phrase "persistence and uniqueness" with respect to identifiers (page 61, paragraph 2).

**5.3**

The introductory paragraph effectively conveys the realistic idea of more than one *Nomen.*

**Example**: The explanation of the example supports the inclusion of fictional agents. If "In some real-life situations the cataloguer may not know whether one cluster of *Nomens* is used by the same person as another distinct cluster of *Nomens*", then it is equally possible to not know whether the cluster represents a real or fictional person. If cataloguers are not to make a priori determinations in all cases, then why, indeed, should we make them at all? How are we serving users' needs by making these determinations, when we cannot universally make them correctly?

**5.4**

Some communities and members of the group were pleased to see the concept of representative expression included, despite the flaws in the description. For example, it is unclear how cataloguers will choose yes or no for representativity where the history of the work is unknown, or when there are multiple possibilities, or conversely, as with many music examples, no representative expressions can be identified. The details related to application, including the assignment of particular attributes, should be removed and left to community best practices and application profiles for development.

**5.5**

While we are pleased to see aggregates addressed in the document, we have reservations about the model. Specifically, the idea that an aggregating work does not contain the aggregated works themselves. The logic of this choice is not fully explained.

**Figure 5.5**

We believe the arrows in this figure should be many to many.

**Figure 5.6**

The arrow from *Res* to Work needs to be named, presumably 'has as subject/is subject of'.

 FRBR-LRM fails to explain why the original FRBR and FRSAD treatment of subjects was abandoned. In addition, some members of the committee think that it is incongruous that "Place" and "Time-span" merit specific entity classes, while topics are relegated to the general *Res*.

**Figure 5.7**

This figure should not appear as a screenshot in the document.

**5.6**
This discussion fails to explain why the original FRBR treatment of serials was in error. While this model may solve some difficulties with integrating serials into the model, it creates practical difficulties because there is presumably no inheritance of common attributes between the separate works. Additionally, in the first sentence serials are described as "essentially aggregates", which appears to prevaricate on the nature of serials. Either they are or are not aggregates. We suggest that serials would be better described through a whole-part relationship.


## Transitions Mapping Document:


General Comment: This document needs a single, continuous pagination scheme.

**Overview of differences between FRBR-LRM and the FRBR-FRAD-FRSAD models**
This is a useful summary of the changes from the former suite of FRBR documents to the LRM model.

**Transitions Mapping Table**
Medium of Performance and Scale: These terms are material specific, and we question why they were retained. More explanation is needed as to why particular attributes linked to "Representative Expression" were chosen as they appear somewhat arbitrary.

## Suggested Edits:

General Comment: Three different symbols are used in the examples for the subfield delimiter in the MARC format ($, |, ‡).  One symbol should persist throughout the document.

2.3 paragraph 2: "A major criterion for the retention or establishment of an entity, was that …"  Delete comma after "entity".

**Table 3.2**

 The language of the Find comments seems less fluid and not parallel to the other task comments :"To facilitate this task the information system seeks to support searching; that is, to enable effective searching by offering appropriate search elements or functionality". Suggestion: "To facilitate this task the information system seeks ~~to support searching; that is,~~ to enable effective searching by offering appropriate search elements or functionality."

4.1.1 paragraph 2:  "An entity is an abstract class or category of conceptual objects, there are many instances of each entity which are described in bibliographic, holdings or authority data." Change to two sentences to avoid comma splice:  "An entity is an abstract class or category of conceptual objects.  There are many instances of each entity which are described in bibliographic, holdings or authority data."

**Table 4.2**

 LRM-E6: spelling: Hans Christian Andersen

LRM-E11: "Ordovician Period" should be expressed as "million years ago", rather than "millions of years before present."

**Table 4.3**

General Comment: Many examples in table 4.3 are qualified by "expressed in natural language, in English", such as under LRM-A4.  Others do not have this qualification, such as under LRM-A3, even though it might be equally true. Either it should be universal, or universally removed.

4.2.1 first sentence: This sentence is unnecessarily complex and should be rewritten: "Attributes characterize specific instances of an instance of an entity." as "Attributes characterize specific instances of an entity."

4.2.1 second sentence: "None of the attributes defined in the model are required for any given instance of an entity, attributes may be recorded if applicable and easily ascertainable when the data is considered relevant to the purpose of the application."

Should be rewritten to avoid comma splice: "None of the attributes defined in the model are required for any given instance of an entity. Attributes may be recorded if applicable and easily ascertainable when the data is considered relevant to the purpose of the application."

4.2.2 last sentence: Should be rewritten: "... stored as free-text ~~as opposed to~~ <u>rather than</u> as a specific attribute or relationship."

**Table 4.3**

LRM-A11: Information about implicit numbers of performers in the examples is application-specific and not important here.

LRM-A36 and A37: "millions of years before present" should be better expressed as "million years ago"

4.3.2 paragraph 3: "The 'has part/is part of' relationships are an example of relationships that are recursive ~~without also being~~ <u>but are not symmetric</u>."

**Table 4.4**

LRM-R21: "Has sequel" and "has prequel" would be better terms to match the definition. "Precedes" and "succeeds" risk sounding like they refer to changes in a serial.

Page 69: Under "Select" the 4<sup>th</sup> example: "blu-ray" should be corrected to "Blu-ray".

## Task Force Roster:

Beth (Dr. Elizabeth Anne) Shoemaker, chair
Catalog and Resource Access Librarian
St. Ambrose University Library
518 W Locust St
Davenport, IA 52803-2829
work: 563) 333-6469
E-mail: shoemakerelizabetha@sau.edu

Felicity Dykas
Head, Digital Services Department
MU Libraries
University of Missouri–Columbia
work: (573) 882-4656
E-mail: dykasf@missouri.edu

John Hostage
Senior Continuing Resources Cataloger
Harvard Library–Information and Technical Services
Langdell Hall 194
Harvard Law School Library
Cambridge, MA 02138
Work: (617) 495-3974
E-mail: hostage@law.harvard.edu

Mary Huismann
Associate Librarian
Technical Services/Specialized Cataloging
University of Minnesota Libraries
309 19th Ave S
Minneapolis, MN 55455
Work: (612) 625-5616
E-mail: huism002@umn.edu

Kelley McGrath
Team Leader, Metadata Management Librarian
University of Oregon Libraries

1299 University of Oregon
Eugene, OR 97403-1299
work: (541) 346-8232
fax: (541) 346-3485
E-mail: kelleym@uoregon.edu

Robert Maxwell
Brigham Young University
6728 Harold B. Lee Library
Provo, UT 84602
work: (801) 422-5568
fax: (801) 422-3221
E-mail: robert_maxwell@byu.edu

John Myers
Catalog and Metadata Librarian
Union College
807 Union St.
Schenectady NY 12308
work: (518) 388-6623
fax: (518) 388-6619
E-mail: myersj@union.edu

Cory Nimer
Manuscripts Cataloger/Metadata Specialist
Brigham Young University
1108 HBLL
(801) 422-6091
E-mail: cory_nimer@byu.edu

Gayle Porter
University Library
Chicago State University
9501 South Martin Luther King Drive
Chicago, IL 60628-1598
work: (773) 995-2551
fax: (773) 995-3772
E-mail: gporter@csu.edu

Tina Shrader
Head, Cataloging Unit 1
Cataloging and Metadata Management Section
National Library of Medicine
8600 Rockville Pike
Bethesda, MD 20894
work: (301) 827-1633
E-mail: tina.shrader@nih.gov