TO: Barbara B. Tillett, Chair Joint Steering Committee for Development of RDA

FROM: Mirna Willer, Chair ISBD Review Group

SUBJECT: ISBD Review Group response to JSC Response to the two Discussion Papers from the ISBD Review Group –

6JSC/ISBD/Discussion/1 Alignment of ISBD and RDA Element Sets and 6JSC/ISBD/Discussion/2 and Mapping of ISBD Area 0

The ISBD Review Group thanks the JSC for its response.

We offer the following comments in response to specific points raised in the JSC response.

6JSC/ISBD/Discussion/1 Alignment of ISBD and RDA Element Sets

1. **RDA Appendix D.1.** After the joint meetings in Glasgow in 2011, the JSC expected the ISBD Review Group to review RDA Appendix D to assure it is in line with the current version of the Consolidated ISBD. We would welcome a proposal for any areas where you find they are not in alignment.

The ISBD Review Group reviewed the structure of Appendix D.1 and, in accordance with other discussions and decisions made at the Glasgow meeting, including the methodology given in 6JSC/Chair/4/Mapping ISBD and RDA element sets, we started to develop an ISBD and RDA element alignment table, and a rule interpretation alignment table. Please see the section at the end of this document for comments arising from our review of Appendix D.1.

2. **Mappings. Elements not in ISBD.** In the ISBD/Discussion 1 regarding alignment of the ISBD and RDA element sets, we all recognize the elements will never be exactly the same, as ISBD does not include access data, but only description. Even for description, ISBD lacks some of the RDA elements, and we would be interested to know if ISBD Review Group is considering adding them or are these acceptable differences? Some examples are variant title, earlier title proper, later title proper, abbreviated title

The Review Group has found this mapping exercise to be very informative, and it will be fed into the general review process of the ISBD, the next cycle of

which is due to begin in 2014/2015. The addition and amendment of ISBD elements will be considered as part of this process.

The table, "Alignment of the ISBD...element set with RDA...element set" is a valuable starter document to identify specific elements where it is felt that ISBD and RDA are different. The JSC would find it helpful if the ISBD Review Group would suggest where these differences are a barrier to interoperability and where they are not. We also would welcome suggestions regarding unconstrained ISBD elements and the mapping of RDA elements to them.

We intend the table itself to be used to remove any such barriers to interoperability. It can be utilized with the methodology of 6JSC/Chair/4 to support the interoperability of linked data based on ISBD and RDA. In this context, differences between the alignments of elements are measured as semantic "dumb-down" between the constrained ISBD and RDA properties and the unconstrained property to which each is mapped. The table shows that the unconstrained property with minimal dumb-down will be based on ISBD as well as RDA (already assumed by the methodology). The Review Group is looking at the use of unconstrained ISBD elements in the wider context of alignment with standards other than RDA, and has agreed to create unconstrained properties based on ISBD. We assume that together with the unconstrained RDA properties a complete RDF map can be constructed. Such a map could be used by any linked data application to get the best interoperable fit between ISBD and RDA triples.

We have discussed with the Open Metadata Registry team if Registry enhancements could support the development and maintenance of such maps, and we understand that this is feasible. We also believe that using an enhanced Registry would support better synchronization of changes to the alignments, so that the Review Group and JSC could better share responsibility for keeping the alignments up to date.

However, we cannot predict whether the converse mapping from RDA to ISBD will identify such barriers.

The JSC notes that many of the differences are due to RDA being more granular/detailed as well as the differences in coverage for the two standards being different (RDA covering both description and access, while ISBD covers description only). Is the ISBD Review Group suggesting that RDA should become less granular or the ISBD needs to be more granular?

The JSC feels it would be counterproductive to make RDA less granular, as our community has expressed the need for the existing elements.

The ISBD Review Group did not intend to make any suggestions about changing the granularity either for ISBD or RDA in the discussion paper. An intended function of ISBD is to enable the interchange of bibliographic descriptive records between national cataloguing agencies in an international environment, and is necessarily a global view with coarse granularity rather than a local view with finer granularity. It is therefore inevitable that the elements of ISBD will never be as granular as those of local cataloguing rules.

3. **Comments on the mappings.** Not all of the mappings are completely clear at first glance. Some mappings to RDA do not seem to be at the equivalent element, but instead to either a broader or a narrower element. For example:

The alignment relationships try to ensure semantic coherency by indicating where one element subsumes another (that is, is broader or narrower in meaning) or are "equal" enough to be interoperable. In some cases, the "=" relationship indicates a "fuzzy" compromise between ">" and "<".

At the beginning of the alignment table we suggested that categorizing each relationship beyond approximate equality would give added detail which we thought would be useful: "The alignments given are not formal or operational mappings from ISBD elements to RDA elements. Instead, they are intended to support a variety of maps for different applications. For example, a specific application may choose to treat the three categories of alignment (broader, narrower, equal) as a single mapping type (approximately equal, or equivalent, etc.)." Exact semantic equality is not intended by the phrase "same in definition and scope" as there will always be minor differences.

The methodology for determining the alignment is clearly given in the document. Specifically, the highest priority is given to the definitions found in the text of ISBD and RDA. It is possible that these definitions are incomplete, but we feel that that is an internal matter for the Review Group and JSC respectively with regard to ISBD and RDA. We expect definitions, etc., to change over time as a result of review and development processes and exercises such as this, and we therefore expect the alignments to change over time.

Unless noted below, the ISBD Review Group assumes that the JSC approves the mapping.

* ISBD 1.4 "Statement of responsibility relating to the title" show as being "=" to RDA 2.4 (Statement of responsibility), but it could be seen as "<" that element and "=" to RDA's statement of responsibility related to the title proper?

We still consider "=" to be the correct relationship because the definitions of the two elements are the same.

* ISBD 3.2.1, Music Format statement is shown as "=" to RDA 7.20 (Format of notated music), when it is "=" 2.5 Edition statement. That is, RDA considers such statements (as transcribed from the resource) as a type of edition statement.

For purposes of functional interoperability we think that the alignment is correct. It is a better fit than "<" RDA 2.5; we note that 6JSC/IAML/1/JSC response says "If a separate element is truly needed in some application, it can be treated as a sub type of RDA's Edition Statement", which indicates a "<" relationship with RDA 2.5. Examination of the examples for ISBD 3.2.1 and RDA 7.20 indicates this is a better fit.

* ISBD 3.3.2, Numeric designation is shown as ">" two RDA elements, but there is an equivalent element at RDA 2.6 Numeric designation that would be "=".

RDA 2.6 is "Numbering of Serials" and covers all the four ISBD elements 3.3.2 "Numeric designation", 3.3.3 "Chronological designation", 3.3.3 "Parallel numbering system" and 3.3.5 "Subsequent numbering system". RDA 2.6 "Numbering of Serials" is "=" to ISBD 3.3 "Numbering (Serials) which is an aggregate statement. The alignment table avoids using aggregate statements on the "from" side (that is, from ISBD) because they contain, by definition, primary elements at a finer level of granularity. The question of how each element set represents aggregated statements in RDF is still a moot point in technical discussions.

* ISBD 3.3.5, Parallel numbering system is shown as "<" Numbering of serials at RDA 2.6, but in fact RDA has specific numeric elements for more than one language or script at 2.6.2.4. 2.6.3.4. 2.6.4.4. and 2.6.5.4

This is question of different granularity between the ISBD and RDA elements. We have chosen to align with RDA 2.6 because it aggregates the more specific numeric elements.

ISBD 3.3.7 "Subsequent numbering system" covers four RDA elements: 2.6.6 "Alternative Numeric and/or Alphabetic Designation of First Issue or Part of Sequence", 2.6.7 "Alternative Chronological Designation of First Issue or Part

^{*} ISBD 3.3.7, Subsequent numbering system is shown as "<" RDA 2.6, but RDA has "=" at RDA 2.6.6

^{*} ISBD 3.3.7, Subsequent numbering system shows on the table as "<" Numbering of serials at 2.6 in RDA, but there is a possible "=" mapping at RDA 2.6.6.

of Sequence", 2.6.8 "Alternative Numeric and/or Alphabetic Designation of Last Issue or Part of Sequence" and 2.6.9 "Alternative Chronological Designation of Last Issue or Part of Sequence".

We think these alignments will be better clarified when the RDA to ISBD alignment is developed.

* In another situation, the ISBD is shown to be ">" when in fact there are several RDA elements that are "=" (e.g., Additions to place of publication in ISBD 4.1.9 has RDA 2.7.2.3, 2.8.2.3, 2.9.2.3, 2.10.2.3 for optional additions). It seems that these are 'interoperable', but RDA is more granular.

We do not understand the specific example given in the comment, as RDA 2.7.2.3, 2.8.2.3, 2.9.2.3, 2.10.2.3 are not elements. However, we agree that RDA is more granular, and the alignment reflects that.

* ISBD 5.1.4, Pagination is shown to be "<" RDA 3.4 Extent, but there is RDA 3.4.5 Extent of Text which is "="

The definition of ISBD 5.1.4 was insufficient to determine the alignment, but examining the text of the ISBD indicates that this element covers frames of a sequence of still images in a filmstrip or flipchart, and therefore partially combines the two RDA elements 3.4.5 Extent of Text and 3.4.4 Extent of Still Image. Thus, the mapping is correct; it is "<" than the higher level element 3.4 Extent.

*An example where RDA is more granular is ISBD 5.2.2 Composition of material, and RDA has Base material at 3.6, Applied material at 3.7, and Mount at 3.8.

We agree.

There is an oddity at ISBD 7.0.3 Note on frequency, where the correct RDA Note on Frequency is 2.20.12, but is shown as ">", which should be "="; and the table also shows ">" RDA 2.14 Frequency – but it is not clear why that was included in this table.

This comment has led the ISBD Review Group to revise the alignment of ISBD 7.0.3 to RDA 2.20.12 from ">" to "<" because RDA includes "currency of contents" which ISBD does not.

ISBD does not have a separate element for Frequency, and the data is recorded in the Note on Frequency element; the alignment includes the RDA 2.14 Frequency element for reasons of functional interoperability.

Another oddity is at ISBD 7.0.5 Note on mode of access, where there is also the "=" RDA 3.3, Carrier type for Online resource.

We disagree that there is an alignment between ISBD 7.0.5 and RDA 3.3. Example content of the ISBD element is "Mode of access: Lexis system. Requires subscription to Mead Data Central, Inc." and has little or no overlap with the semantics of RDA 3.3.

For the Notes on bibliographic history at ISBD 7.2.3, we observe that RDA has many notes and relationships and as a whole is equivalent to ISBD, so it is not clear why some of these are shown as "<" or ">".

We think that these are the best alignments as ISBD only deals with single resources and therefore we have taken into account the context of ISBD in terms of the relationships explicitly defined in RDA.

The 'notes' column often helps explain the "<" and ">" assignments, but the notes are not always given – this would help considerably in understanding the accuracy of the mappings. Further annotation could be made to indicate when the elements are equivalent, if one considers levels of granularity to still be equivalent.

The "notes" column is only supplied in those cases where using the methodology stated at the beginning of the alignment table still does not clearly explain why a particular alignment has been chosen. In cases when notes are not given, the alignment is considered to be generally self-evident or traceable via the methodology.

4. **Next steps?** Would it be helpful for the ISBD Review Group and the JSC to decide whether these hierarchical and granular issues reflect real differences for which interoperability is still achieved, or whether they must be brought in line with each other?

Is it important to note the granularity issues even where the resulting interoperability is not affected, so that the differences are recorded in a registry mapping namespaces?

As discussed above, we think interoperability is achievable by utilizing the alignment table in appropriate applications. We have identified some elements that require further discussion to improve interoperability, for example, Parallel title, Title proper consisting of common title and dependent title, and the concept of series statement. ISBD RG will provide further information after it has discussed the work on the rule interpretation alignment table (ISBD Profile in RDA). The differences in granularity are already expressed in the direction of the sub-property mappings, that is,

ISBD sub-property of RDA and vice versa, following the methodology of JSC/Chair/4. As we note above, we understand that the OMR can be enhanced to accommodate such mappings and maps, and we would welcome such developments.

Does the ISBD Review Group have an interest in being more granular than it is today, or will the mappings support interoperability? Should we use this table to identify the specific areas for future discussion? Perhaps the ISBD Review Group can make specific proposals.

The ISBD Review Group will consider making ISBD more granular if it improves the functionality of ISBD; this will be part of the next review cycle of ISBD. We understand, according to the methodology described in JSC/Chair/4, that the alignment table identifies some areas for future discussion, but we also note that the corresponding alignment table from RDA to ISBD is necessary to inform such discussion. We have no specific proposals at this stage.

Is the goal of this table to register the mappings for future systems to use for machine-actionable data? Is so, then we should reach agreement so such a table can be publicly available for various users.

Yes, as stated in the preliminaries of the alignment discussion paper. We agree that the alignment table and associated RDF maps should be publicly available.

We hope the ISBD Review Group can get funding to complete the reciprocal RDA to ISBD table.

The ISBD Review Group will have to discuss this issue. However, it was the expectation from the very beginning of our collaboration that JSC would reciprocate by obtaining similar resources to those that the ISBD Review Group has already invested in this work.

6JSC/ISBD/Discussion/2 describing the ISBD Area 0 vocabularies as they map to the RDA/ONIX Framework

The mapping information is very interesting and clearly only half of the picture. The JSC, at our November 2012 meeting, agreed that we now need to do a similar mapping of the RDA vocabulary and share our analysis with you. However, you may already be aware that our UK representatives (Alan Danskin and Gordon Dunsire) are working with the ONIX counterparts to open up discussion again about the RDA/ONIX Framework, and we look forward to further work in that area during 2013. We would like to extend an invitation to your Group to participate with Alan

Danskin and Gordon in those discussions. If you are interested, please contact Alan at this email address: alan.danskin@bl.org. Those discussions may change a mapping exercise, so we will put the task for a reciprocal mapping temporarily on hold until after those RDA/ONIX Framework discussions.

The ISBD Review Group thanks JSC for its invitation. Contact has already been made between the Review Group's chair and the JSC UK representatives. We look forward to receiving further information on these issues which are becoming a priority for ISBD in respect of alignment with other content and carrier categories such as the ONIX Code lists.

Regarding specific suggestions in your discussion paper, on p. 2, it is not clear how this mapping would fit into the RDA Appendix D.1, and we would still welcome a proposal for any updates to Appendix D.1 you wish to offer.

The ISBD Review Group's intention with this suggestion was that we could develop a direct mapping between the ISBD and RDA content and carrier categories using the ROF hub. Example mappings are included in the ISBD/XML Study Group's 2010 paper "Analysis of content and carrier designators in the ISBD consolidated edition with respect to the RDA/ONIX Framework", available at http://www.ifla.org/files/assets/cataloguing/isbdrg/area-0-analysis.pdf

However, this would be a change to the structure and possibly scope of Appendix D.1. and we suggest it should be discussed by JSC in that wider context.

Priorities

Knowing that the members of our two groups are busy people, it would help to agree on priorities for next steps. What are the goals for the mappings? What elements do we need to address in order to establish interoperability? From these tables and mappings, it is not clear where the gaps are. Perhaps the ISBD proposal can identify those as a focus for further joint work.

We are not sure if this section, headed "Priorities", refers to the RDA/ONIX Framework alignments or the element set alignments (already covered in Section 4 Next steps?) or both. The ISBD Review Group has not identified any new general gaps.

The ISBD Review Group wishes to publish the ISBD to RDA alignment table as soon as possible and preferably in time for the ISBD meetings to be held during the IFLA conference in August 2013. We have identified only one change suggested by the JSC that we agree with, and have provided explanations for our decisions in the other cases. It would be very useful to have approval from JSC before publishing the amended table, although it is not necessary. The approval status will be noted in the published document.

Review of Appendix D.1

The ISBD Review Group has some comments about Appendix D.1 in its current structure and format:

The scope of Appendix D says "This appendix provides mappings of the RDA elements used to describe a resource to metadata schemes for presenting or encoding resource description data" but the mapping in D.1.1 appears to be from ISBD to RDA, not RDA to ISBD. We note that in the context of this scope, the metadata scheme for presenting resource description data is the set of rules governing punctuation of the elements in ISBD.

- 1. The purpose of D.1.1 is unclear. Is it intended to show the display of an RDA descriptive record with ISBD layout and punctuation? If so, a better structure would be to have the RDA elements listed first, aligned to corresponding ISBD elements. This would require an alignment from RDA to ISBD, to clarify if there are any gaps. We assume that there would be many "not applicable" comments in the ISBD element set column. The ISBD Review Group is currently working on a rule interpretation alignment table (ISBD Profile in RDA) which is intended to add to the functionality of D.1, and would welcome clarification of the purpose and utility of D.1 from JSC.
- 2. We think that the content and stated functionality of D.1.1 would be better achieved using an application profile, and would welcome further collaboration with JSC in developing one or more such application profiles. As noted above, however, we understand that there are several technical issues still to be resolved by the wider community.
- 3. The information contained in D.1.1. about the order of ISBD elements, their basic display punctuation, and their mandatory status, is all available in section A.3 (Outline of the ISBD and punctuation) of the consolidated edition of ISBD. We think the utility and maintenance of this information would be better achieved if it is linked from the RDA Toolkit rather than copied within it. This also applies to D.1.2. In particular, those ISBD elements which are aggregated statements use complex punctuation patterns that cannot be adequately described in a simplified text.
- 4. D.1.3. does not reference ISBD, and we wonder why it is included in the appendix. If JSC wishes to include information about the ISBD approach to multilevel description, it could take the form of a link to Appendix A of the consolidated edition of ISBD.

5. The ISBD Review Group notes that Appendix D.1 is behind a pay wall, and we strongly recommend that the updated Appendix be moved to an openly accessible area of the RDA Toolkit.

An updated version of the current Appendix D.1 is attached to this document.