

The Times They Are A-Changin': The “Whys” of RDA Toolkit Restructure & Redesign (3R)

Kathy Glennan

Chair, RDA Steering Committee

Director, Cataloging & Metadata Services, University of Maryland

R | D | A
Resource Description & Access

Reason #1 behind RDA Changes

RDA's underlying conceptual models (FRBR, FRAD, FRSAD) were consolidated and updated to become the IFLA Library Reference Model (LRM)



RDA needed to accommodate the new aspects of LRM

Foundations of Cataloging Rules

- AACR2: 1978-2005 (rev. eds. 1988, 1998, 2002)
 - Theoretical foundation: Paris Principles of 1961
 - Anglo-American cataloging traditions
 - Form and content of bibliographic descriptions: ISBD
- RDA: 2010-2017 (original)
 - Conceptual models: FRBR, FRAD, FRSAD
 - IFLA Statement of International Cataloguing Principles: 2009
 - Built on FRBR
- RDA: 2020-present (official)
 - Conceptual model: IFLA Library Reference Model: 2017
 - IFLA Statement of International Cataloguing Principles: 2016
 - Built on the IFLA FR models

Conceptual Model Purpose

- Highlights from CIDOC Conceptual Reference Model (version 7.2.1)
 - Enables exchange and integration of information from heterogeneous sources
 - Through a formal ontology, defines the underlying semantics of database schemata and structured documents used in this field
 - Explains the logic of what cultural heritage institutions currently document, enabling semantic interoperability
 - Serves as a common language for domain experts and IT developers to formulate requirements and to agree on system functionalities
 - Serves as a formal language for the identification of common information contents in different data formats
 - Supports data exchange, data migration, and data information integration without loss of meaning

IFLA LRM

- Developed with CIDOC CRM in mind
 - LRMoo, under development, will be an extension of the CRM
- Consolidation & update of FRBR, FRAD, and FRSAD
- International standard, representing agreement about the structure of bibliographic information
- Provides a framework for a shared understanding of
 - How bibliographic data is understood in a broad, general sense
 - Logical structure of bibliographic information
 - LRM 2.1
- Intended as a guide or basis on which to formulate cataloging rules and implement bibliographic systems
 - LRM 2.2

Benefits of using LRM

- Consistent identification of entities, elements, attributes, and relationships relevant to the bibliographic universe
- Data exchange, without loss
 - Among standards that are based on LRM
 - Even if they represent different cataloging “traditions”
- Extensible
 - RDA includes additional entities and elements which are not specified in LRM, but are semantically coherent with it

Reason #2 behind RDA Changes

Commitment to
creating a [more]
international
standard



RDA needed to
further shed its
Anglo-American
roots

Growing Internationalization

- Started with AACR2
 - Adopted in 16 countries
 - A wide variety of translations
 - Including many western European languages
 - Used text in whole or in part



Anglo-American Focus

- AACR2 naturally made cultural and linguistic assumptions that reflected its origins and expected use
 - Those with an Anglo-American worldview may have difficulty identifying these as specific perspectives
 - Some were never inclusive
 - Such as using “Old Testament” as part of the uniform title for certain books of the Bible
- Original RDA made good strides toward removing this bias
 - But still contained Anglo-American approaches, especially in relation to constructing access points

Expanding the Worldview

- Deutsche Nationalbibliothek joined the Joint Steering Committee for Development of RDA in 2012
 - And the Committee of Principals (now the RDA Board) in 2013
- New governance structure for RDA communities implemented in 2018
 - Based on United Nations regions
 - North America represented on both the RDA Board and the RDA Steering Committee – by one person each
- Thinking about RDA instructions in a new context (the 3R Project) allowed for
 - Supporting existing practices while also offering flexibility, especially for non-Anglo-American implementers

Supporting Translations

- In the official Toolkit, element and entity pages use predictable construction and reused text to support the work of translators
 - Translators start with the RDA Registry, which covers
 - Parts of entity and element pages, Glossary, Vocabulary Encoding Schemes
 - 84% of instructions for elements are composed entirely of reused text and are automatically translated
- Translations may be
 - Partial: in the RDA Registry only
 - Full: added to RDA Toolkit and able to support policy statements, etc.
 - Currently Finnish and Norwegian
 - French nearing completion

Reason #3 behind RDA Changes

Growing interest in
breaking
bibliographic data
out of silos



RDA needed to
support a linked data
implementation
scenario

Genesis of RDA as Linked Data

- Work started in 2007
 - DCMI/RDA Task Group formed – with participants from:
 - Joint Steering Committee for Development of RDA
 - Dublin Core Metadata Initiative
 - W3C Semantic Web Deployment Working Group
- First RDA vocabularies published in the Open Metadata Registry in 2011
- RDA Registry launched in 2014
- Now: Content/development done by RSC Technical Working Group
 - Overseen by RSC

RDA Registry (free!)

- Contains linked data and Semantic Web representations of RDA entities, elements, and terminologies
- RDA Toolkit reuses this information directly
- Includes the “unconstrained element set” – ***not part of RDA itself***
 - Properties that are derived from the elements of all of the RDA entities with semantics that are independent of LRM
 - Allows RDA data work to with other standards, but in a “lossy” way
- Also includes
 - *Alignments* with other vocabularies (ISBD, LRM, Dublin Core, MARC 21, etc.)
 - Which are the basis of *maps*
 - A set of RDF triples representing the semantic relationship between two element sets or value vocabularies

Linked Data Recording Method

- “Recording an IRI”
 - IRI = Internationalized Resource Identifier
 - Defined similarly to URI but includes Universal Coded Character Set (not just ASCII)
 - Every URI is an IRI
- Included in every element page

- Example: *author person*

Recording an IRI

Record an IRI for a related person as a *real-world object*.

For general guidance on IRIs, see Guidance: Recording methods. [Recording an IRI](#) .

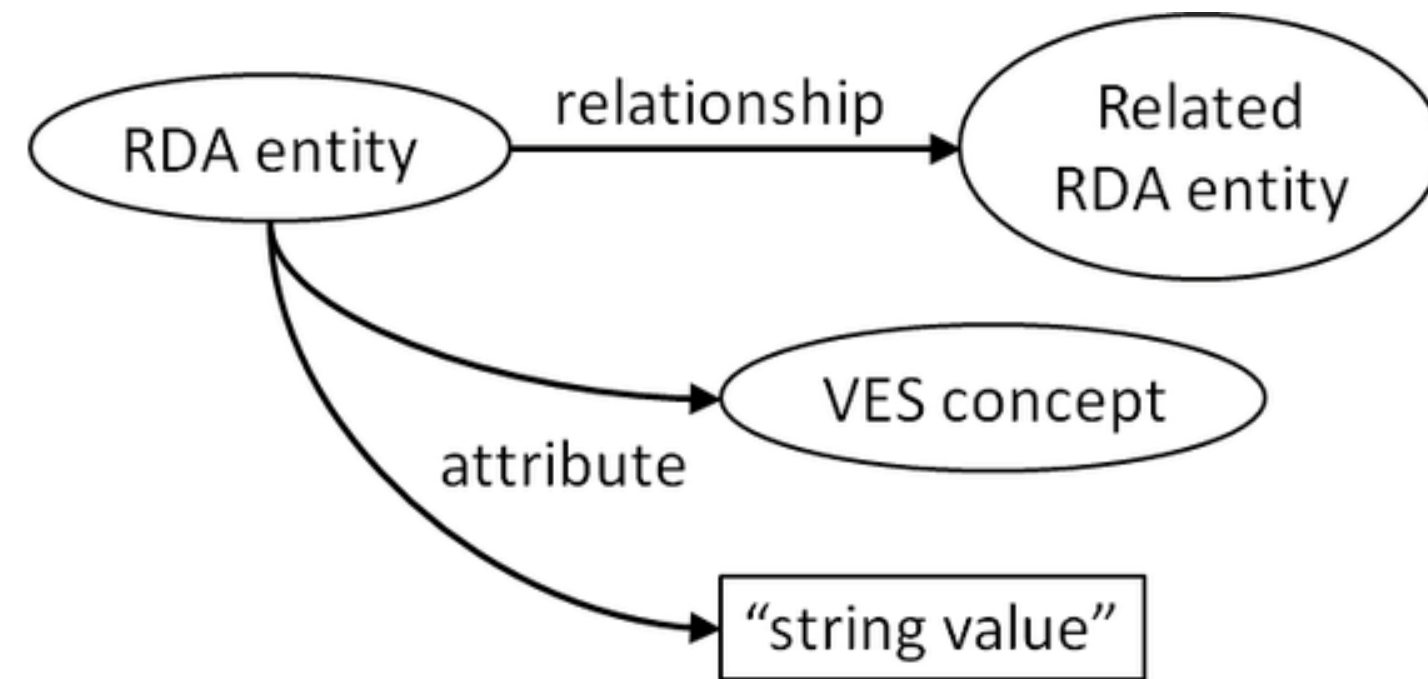
- Even if not applicable

Recording an IRI

This recording method is not applicable to this element.

Capturing RDA Data as Linked Data

- RDA metadata statements are expressed in Resource description framework (RDF), using IRIs taken from the RDA Registry
- Each relevant entity is embodied in a separate graph
 - If they comprise a single information resource
 - If they are associated with an information resource
- Use the IRI recording method for values taken from a vocabulary encoding scheme, when available
- Link graphs for related entities using IRIs



The IRI debate: MARC 21 \$0 or \$1?

- MARC 21 \$0 = Authority record control number or standard number
- MARC 21 \$1 = Real World Object URI
(see <https://www.loc.gov/marc/bibliographic/ecbdcntf.html> for details)
- Recording an RDA IRI in \$0 = an identifier
 - Transforms a “thing” into a “string”
 - Strings cannot be guaranteed to be unique outside of a local application
- Recording an RDA IRI in \$1 = real-world object
 - A “thing”, not a “string”
- Example from *Author person*: Element Reference, MARC 21 mappings

MARC 21 Authority 500 0* \$0 [identifier]

MARC 21 Authority 500 1* \$0 [identifier]

MARC 21 Authority 500 0* \$1 [IRI]

MARC 21 Authority 500 1* \$1 [IRI]

Reason #4 behind RDA Changes

Original Toolkit's
underlying
structure was dated
and hard to update



RDA needed a new
content
management
system

New CMS Structure

- Only content providers (certain RSC members, policy statement writers, etc.) need to work in the CMS
 - Transparent to Toolkit end users
- Uses the DITA Standard (Darwin Information Typing Architecture)
 - “A form of structured content that is optimized to create, reuse, translate, and publish documentation quickly by using topics and maps”
 - <https://heretto.com/what-is-dita-xml/>
 - Content display is controlled by maps, which provide order and hierarchy
 - Without restructuring the underlying data
 - Flexible, and the possibilities are endless!

Adjusting to the Changes

The Good News #1

- If it is in original RDA, it almost always is in official RDA
 - Exceptions only if the original content is not compatible with LRM
 - The RSC retained “soft deprecated” elements to assist with transition to the new Toolkit
 - The “details of ...” elements were kept but indicate that a different approach is preferred – such as this excerpt from *details of playing speed*:

Prerecording

The following option is recommended.

OPTION

Record details or other information as an unstructured description of

Manifestation: [playing speed](#) .

The Good News #2

- Data elements and instructions largely align between original and official RDA
 - There should be fewer differences in the bibliographic records (or metadata description sets) generated from each version of RDA than between AACR2 and RDA
 - Especially when community guidance has not changed
- Our systems already manage MARC records using a variety of descriptive standards: AACR1, AACR2, RDA, DCRM, etc.
 - Records creating using official RDA will “play well with others” in this environment
 - Recognized by recent PCC Policy Committee decision: Use 040 \$e rda in bibliographic records when using both the original Toolkit and the official Toolkit

The Good News #3

- “Legacy” Anglo-American instructions relocated – but not removed
- See the new Community Resources section
 - Two categories
 - Community refinements
 - Currently: Instructions moved from original RDA because they only addressed Anglo-American practices – examples
 - ◆ Preferred title of legal work
 - ◆ Series statement
 - ◆ Access point for corporate body
 - Community vocabularies
 - Currently: Abbreviations, terms in specific languages
 - Additional content for Community Resources is under discussion by RSC

Navigation and Structure

Original Toolkit

- Structure tied to FRBR, FRAD, FRSAD
 - Implied a particular workflow
 - Easy to navigate *if* you know these models
- Supporting guidance and resources available via separate tabs; cannot be viewed together
- Search options for RDA text
 - By phrase or term
 - Can jump to a specific instruction if you know the number

Official Toolkit

- No explicit structure
 - Workflow can come from community-based application profiles
 - Potential for using DITA maps in the future
- Selected policy statement set may be viewed in context with the instructions
- Search options include
 - By element name (“exact title”)
 - By word or phrase (in RDA only, Glossary, etc.)
 - Base # of original RDA instruction

New Navigation by Entity

- Example – Manifestation
 - Navigation tool at the bottom of each entity page
 - Select attribute or relationship elements
 - Or type in “find element”

elements

All Attribute Elements Relationship Elements ▼

Find Element

[abbreviated title →](#)

[access point for manifestation →](#)

[accessibility content →](#)

[accompanied by manifestation →](#)

[also issued as →](#)

[appellation of manifestation →](#)

[applied material →](#)

[authorized access point for manifestation →](#)

[base material →](#)

[bibliographic format →](#)

[binding of manifestation →](#)

Working with the Wording

- The phrasing of the instructions is more machine-predictable and less like a cataloging manual
 - A different form of the specialized language that catalogers have always used
 - Part of learning the revised standard
 - Terminology is more compatible with linked data implementations
 - Supplemental guidance like LC/PCC Policy Statements and Metadata Guidance Documents can use terminology more familiar to their community

Condition/Option Boxes

Original Toolkit

2.8.2.4 – Detailed instructions

More Than One Place of Publication LAC/BAC-BAnQ

If more than one place of publication is named on the source of information, record the place names in the order indicated by the sequence, layout, or typography of the names on the source of information.

EXAMPLE

If:

there are two or more publishers

and

there are two or more places associated with one or more of the publishers

then:

record the place names associated with each publisher in the order indicated by the sequence, layout, or typography of the place names on the source of information.

Official Toolkit

Place of publication – Simplified approach

CONDITION

Two or more values for the element appear in the *source of information*.

OPTION

Record the value that appears first.

OPTION

Record one or more values separately in the order indicated by the sequence, layout, or typography of the *source of information*.

Elements & Element Labels

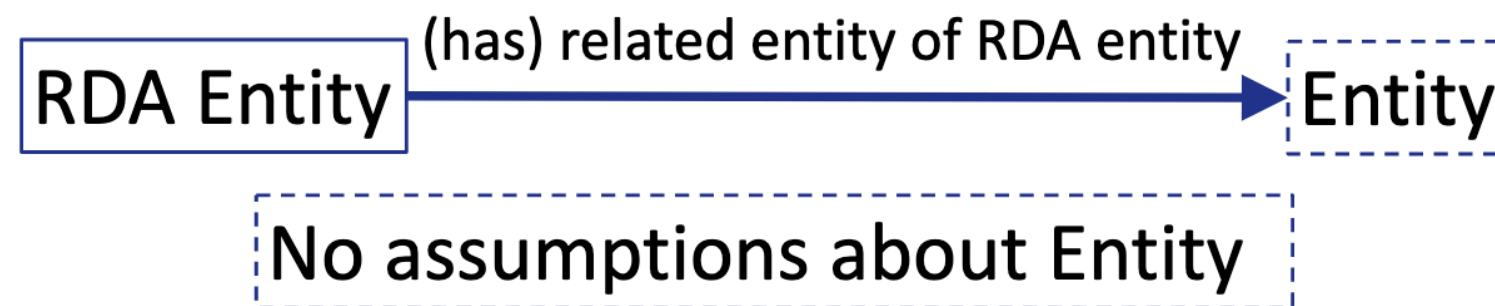
- Over 3,000 elements
 - At varying levels of specificity, each with a unique label in RDA
 - Each agent element declared separately, e.g.,
 - Author agent
 - Author person
 - Author collective agent
 - Author family
 - Author corporate body
 - Community or cataloging agency selects the level of specificity
- Element labels are not expected to be used in displays
 - Communities can map to alternative labels
 - Alternative label section in Toolkit element pages
 - Under Element Reference

New Concepts

- Aggregates
 - Based on LRM, which determined that these are not whole-part relationships
 - A plan for bringing together distinct expressions into one or more manifestations – not the contents
 - Work-expression lock
- Diachronic works
 - Planned to be embodied over time
 - Includes serials – and more
 - Work-expression-manifestation lock
- Manifestation statements
 - Transcribed from the manifestation; how it represents itself

New Concepts

- Representative expression elements
 - Elements that best represent the intention of the creator
 - Associated at the Work, rather than the Expression level
- Treatment of fictitious entities
 - Fictitious persons, places, and timespans (etc.) are valid concepts
 - But they are not examples of those LRM/RDA entities
 - In fact, they are not RDA entities at all
 - Information about fictitious entities can be captured via transcribed elements
 - The relationships take place at a broader level, such as *related entity of work*
 - In a name-based authority file, this approach does not require a change in practice for persons or places





For More Information

RDA Resources

- RDA Steering Committee website: <http://www.rda-rsc.org/>
 - Presentations page: <http://www.rda-rsc.org/rscpresentations>
 - Pages by year, such as for 2022: <http://www.rda-rsc.org/node/702>
 - FAQ: http://www.rda-rsc.org/content/rda_faq
- Official RDA Toolkit: <https://access.rdatoolkit.org>
- RDA Toolkit website: <https://www.rdatoolkit.org>
- RDA YouTube channel: <https://www.youtube.com/c/RDAToolkitVideo>

Questions?

Ask now, or email me later at:
RSCChair@rdatoolkit.org