RDA: a quick introduction

Chris Oliver

February 2nd, 2011
What is RDA?

- new metadata standard that replaces AACR2
- a set of practical instructions based on a theoretical framework

To understand RDA:

- not simply a set of updated instructions
- new way of thinking about cataloguing data
Understanding RDA

1. scope of RDA
2. underlying theoretical framework
3. objectives and principles
4. an aspect of RDA’s design:
   - elements and core elements
   - designed for current databases and for future databases and web environments
Continuity with AACR2

- RDA includes instructions that originate from AACR2
- Instructions derived from AACR2 are reworked:
  - reworded
  - organized differently
  - within a new theoretical framework

Every word has changed

RDA instructions show visible continuity with AACR2
Example

**AACR2 1.5B1**

Record the extent of the item by giving the number of physical units in arabic numerals and the specific material designation as instructed in subrule .5B in the chapter dealing with the type of material to which the item belongs.

1 film reel

**RDA 3.4.1.3**

Record the extent of the resource by giving the number of units and an appropriate term for the type of carrier as listed under 3.3.1.3

1 film reel
AACR2 to RDA: continuity & change

AACR2 deconstructed

- new concepts
- new structure
- new vocabulary
- some new instructions
- some changed instructions

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stones plus framework
AACR2 deconstructed

without the framework
RDA

stones plus new framework
1. Broader scope than AACR2

**RDA 0.0  Purpose and scope**

RDA provides a set of guidelines and instructions on formulating data to support resource discovery.

**versus AACR2 0.1**

These rules are designed for use in the construction of catalogues and other lists in general libraries of all sizes.
Broader scope than AACR2

- bibliographic data
- authority data

- more international
  - beyond “Anglo-American”
  - instructions made consistent and easy to use by many cultural, religious, national communities
    - for example, options for the use of other languages, scripts, calendars, numeric systems
Broader scope than AACR2

- RDA data for the web environment
  - visible in the web
  - function in the semantic web
  - compatible with metadata standards of other resource description communities

- not just for libraries
  - connecting with other cultural heritage communities
  - beyond the library “silos”
  - for example, instructions for archival resources
2. Framework
2. Framework

a. the conceptual models
b. role of user tasks
c. entity relationship models
d. evidence of the models in the way RDA is organized
e. influence of FRAD
RDA’s framework

- explicit conceptual framework

- aligned with the FRBR and FRAD conceptual models
  - **FRBR** Functional Requirements for Bibliographic Records 1998
  - **FRAD** Functional Requirements for Authority Data 2009

FRAD is an extension of the FRBR model

- both models developed under the auspices of IFLA
The two models

- broad base of international consensus and support
- widely used data modelling technique:
  - entity relationship model
    - entities
    - attributes
    - relationships
- “functional”
  - data is important because of how it is used
  - use is operationalized as “user tasks”
RDA 0.0 Purpose and Scope

RDA provides a set of guidelines and instructions on formulating data to support resource discovery.

The data created using RDA to describe a resource are designed to assist users performing the following tasks:

- **Bibliographic data**
  - find
  - identify
  - select
  - obtain

- **Authority data**
  - find
  - identify
  - clarify
  - understand
Consistent focus on the user

Throughout RDA:

- why record this data?

  to support the user in completing one of the user tasks

- user tasks come from FRBR/FRAD models
- user tasks are an essential part of RDA
Functional objectives

- RDA divided into 10 sections
- Each section begins with general guidelines
- Functional objectives and principles specific to the section
- Functional objectives = relationship between the data and the user tasks
  (recorded or formulated according to the instructions in that section)
Section 1= Recording attributes of manifestations & items

1.2  Functional Objectives and Principles

The data describing a manifestation or item should enable the user to:

a) find manifestations and items that correspond to the user’s stated search criteria

b) identify the resource described …

c) select a resource that is appropriate to the user’s requirements with respect to the physical characteristics of the carrier and the formatting and encoding of information stored on the carrier

d) obtain a resource …
User tasks and cataloguer judgment

- user tasks provide scope that permits cataloguer judgment

  cataloguer judgment = cataloguer determines if the data is important for the successful completion of a user task

  *for example, from 3.7 Applied material*

  Record the applied material used in the resource if it is considered important for identification or selection ...
Entities, attributes, relationships

- vocabulary of FRBR and FRAD
- vocabulary of RDA
- entity = the object of a user’s interest
- entities that are of interest to someone who uses bibliographic and authority data

bibliographic entities

+ entities specific to authority control
# Bibliographic entities

<table>
<thead>
<tr>
<th>work</th>
<th>FRBR Group 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>expression</td>
<td>products of intellectual or artistic endeavor</td>
</tr>
<tr>
<td>manifestation</td>
<td></td>
</tr>
<tr>
<td>item</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>person</th>
<th>FRBR Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>family</td>
<td>responsible for group 1 entities</td>
</tr>
<tr>
<td>corporate body</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>concept</th>
<th>FRBR Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>object</td>
<td>subjects (includes group 1 &amp; 2)</td>
</tr>
<tr>
<td>event</td>
<td></td>
</tr>
<tr>
<td>place</td>
<td></td>
</tr>
</tbody>
</table>
Authority entities

bibliographic entities  entities on which authority data is focused

name

identifier

controlled access point  entities for authority control
(in RDA = authorized access point)

rules

agency  entities that determine the content and form of access points

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Attributes

- characteristics of the entity
- data to be recorded about the entity

examples of attributes:

**work:** title, genre, coordinates (map)

**manifestation:** publisher, date of publication, extent of the carrier

**item:** identifier (e.g. barcode), provenance, condition

**person:** dates, gender, a title of rank or office

**corporate body:** place, dates, address

**object:** term
Relationships

- link between one entity and another
- basis for navigation and support collocation
- primary relationships:
  - between work, expression, manifestation and item

- 3 other major types of relationships:
  1. between a person, family or corporate body and a resource
  2. between one resource and another resource
  3. between a person, family or corporate body and another person, family or corporate body
## Examples of relationships

<table>
<thead>
<tr>
<th>expression</th>
<th>translation of</th>
<th>work</th>
</tr>
</thead>
<tbody>
<tr>
<td>item</td>
<td>exemplar of</td>
<td>manifestation</td>
</tr>
<tr>
<td>work</td>
<td>created by</td>
<td>person</td>
</tr>
<tr>
<td>item</td>
<td>owned by</td>
<td>family</td>
</tr>
<tr>
<td>manifestation</td>
<td>produced by</td>
<td>corporate body</td>
</tr>
<tr>
<td>work</td>
<td>based on</td>
<td>work</td>
</tr>
<tr>
<td>manifestation</td>
<td>electronic reprod.</td>
<td>manifestation</td>
</tr>
<tr>
<td>person</td>
<td>member of</td>
<td>family</td>
</tr>
<tr>
<td>family</td>
<td>founded</td>
<td>corporate body</td>
</tr>
</tbody>
</table>
Organization and Structure of RDA

- 2 main parts
  - Recording attributes
    - sections 1-4
  - Recording relationships
    - sections 5-10

- Divided into 10 sections
  sections are organized according to the bibliographic entities

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Organization and Structure of RDA

Section 1-4 = Recording attributes

Section 1. Recording attributes of manifestation and item
Section 2. Recording attributes of work and expression
Section 3. Recording attributes of person, family, and corporate body
Section 4. Recording attributes of concept, object, event, and place

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Organization and Structure of RDA

Sections 5-10 = Recording Relationships

Section 5.  Recording primary relationships between work, expression, manifestation, and item

Section 6.  Recording relationships to persons, families, and corporate bodies associated with a resource

Section 7.  Recording the subject of a work [placeholder]

Section 8.  Recording relationships between works, expressions, manifestations, and items

Section 9.  Recording relationships between persons, families, and corporate bodies

Section 10. Recording relationships between concepts, objects, events, and places [placeholder]

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Organization and Structure of RDA

- each chapter associated with a user task

*Chapter 1:* General guidelines on recording attributes of manifestations and items

*Chapter 2:* Identifying manifestations and items
  *User task = Identify*

*Chapter 3:* Describing carriers
  *User task = Select*

*Chapter 4:* Providing acquisition and access information
  *User task = Obtain*
Organization and Structure of RDA

Chapter 5: General guidelines on recording attributes of works and expressions

Chapter 6: Identifying works and expressions
   User task = Identify

Chapter 7: Describing content
   User task = Select
Influence of FRAD

- scope of RDA: bibliographic data **AND** authority data

- influence of FRAD:
  - adding **family** to group 2 entities
  - person, **family**, corporate body
  - definition of person
  - role of identifiers
  - relationship between name + entity
Example: Person in RDA

definition of person influenced by FRAD:

person = an individual or an identity established by an individual (either alone or in collaboration with one or more other individuals)

scope of 9.0 = persons include fictitious entities

for example

- works created by fictitious characters: Miss Piggy, Snoopy
- relationship of person (bibliographic identity) to person (individual)
  designate relationship as “real identity” or “alternate identity”
3. Objectives and principles

- the objectives and principles
- how the objectives and principle shape RDA instructions, looking at two examples
Principles

2009 Statement of International Cataloguing Principles (ICP)
2009 final text of RDA including objectives & principles

- ICP and RDA developed in sync
  0. 4.1 ICP “informs” RDA principles

- ICP and RDA both influenced by FRBR and FRAD models

no. 1 for ICP and RDA = Responsiveness to User Needs
  (RDA)

  Convenience of the User
  (ICP)

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# RDA Objectives & Principles

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>responsiveness to user needs</td>
<td>differentiation</td>
</tr>
<tr>
<td>cost efficiency</td>
<td>sufficiency</td>
</tr>
<tr>
<td>flexibility</td>
<td>relationships</td>
</tr>
<tr>
<td>continuity</td>
<td>representation</td>
</tr>
<tr>
<td></td>
<td>accuracy</td>
</tr>
<tr>
<td></td>
<td>attribution</td>
</tr>
<tr>
<td></td>
<td>common usage or practice</td>
</tr>
<tr>
<td></td>
<td>uniformity</td>
</tr>
</tbody>
</table>
Role of Objectives & Principles

- instructions must be *defensible* + *not arbitrary*
- real impact on the content of RDA

*for example*

objective = flexibility

The data should function *independently* of the format, medium, or system used to store or communicate the data. They should be amenable to use in a variety of environments.

*result = RDA is a “content standard”*
RDA as a Content Standard

“what data should I record?”

RDA can be encoded using different encoding schema

e.g. MARC 21, MODS, Dublin Core, etc.

RDA data can be displayed using different display conventions

e.g. ISBD, label display, etc.

RDA data can be stored in current databases and in new types of database structures

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Examples in RDA

examples show what the data should be

RDA 2.4.1.4 Recording Statements of Responsibility

Transcribe a statement of responsibility in the form in which it appears on the source of information. Apply the general guidelines on transcription given under 1.7.

EXAMPLE
by Walter de la Mare
Fats Waller
by Dr. Johnson
by Sir Richard Acland
by Alfred, Lord Tennyson
by a Lady of Quality
par Charles M. Schultz
directed and produced by the Beatles
Examples in RDA

RDA examples show what the data should be

*not how it should be displayed*
*not how it should be encoded*

AACR2 2.1F1. Transcribe statements of responsibility relating to persons or bodies as instructed in 1.1F.

Shut up in Paris / by Nathan Sheppard
Great Britain: handbook for travellers / by Karl Baedecker
Vas-y, Charlie Brown / par Charles M. Schulz

MARC 21 manual 245 $c statement of responsibility, etc.

245 04$aThe plays of Oscar Wilde /$cAlan Bird.
245 10$aHow to play chess /$cKevin Wicker; with a foreword by David Pritchard; illustrated by Karel Feuerstein.
RDA as a Content Standard

- implement in our **current** library environment
- can be used by **different** metadata communities
- ready to be used in **newly emerging** database structures
- ready to be used in the **future** web environment
Role of Objectives & Principles

for example

principle = representation

    The data describing a resource should reflect
    the resource’s representation of itself.

result = impact on instructions about transcription

RDA 2.5.1.4  Recording Edition Statements
Transcribe an edition statement as it appears on the source of information.

- no instruction to use abbreviations
- transcribe what is on the source of information
Role of Objectives & Principles

Principle = Representation

Appendix B   Abbreviations

B.4   Transcribed elements

For transcribed elements, use only those abbreviations found in the sources of information for the element.

t.p. data recorded

3rd ed. 3rd ed.

Second edition Second edition

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4. Design

- data elements
- core elements
Elements in RDA and AACR2

**RDA element** = A word, character, or group of words and/or characters representing a distinct unit of bibliographic information.

**AACR2 element** = similar definition

*plus*

... and forming part of an area of the description.

- AACR2 elements are organized and embedded into areas
- net effect is quite different
Elements in AACR2

AACR2:

• data embedded in areas or paragraphs
• different kinds of data embedded together in long character strings
• data recorded in ambiguous elements

▸ assumption is that a human will read and interpret information in record
  ◆ cannot be used reliably to search or to limit a search
  ◆ cannot be used for automated processing
  ◆ cannot be used to generate a meaningful display
RDA data elements

- **RDA element** contains data either about:
  - a single attribute of an entity
  - OR  a single relationship between entities

- each element is *discrete* and *precisely defined*
- *independent, separate* units of data
- increased use of *controlled vocabulary*
RDA data elements

- only **one** kind of data in an element

**AACR2:** date of publication, distribution, etc.

**MARC 21:** 260 $c$

**RDA:** 4 different elements:
- date of production
- date of publication
- date of distribution
- date of copyright

*day 1 implementation in MARC 21 environment – data will still be ambiguous*
RDA data elements

- remove ambiguity

AACR2: 1.7B13. Dissertations
  - information embedded in a note
  - note about academic degree, granting institution or faculty and year degree granted

RDA: 7.9.1 Recording Dissertation or Thesis Information
  - separate elements for: academic degree
    granting institution or faculty
    year degree granted
  - information that can be used by human or machine

*day 1 implementation in MARC 21 environment – subfields for 502 already implemented*
RDA data elements

- **distinct** and defined elements for each kind of data

- different element for each type of data
  - illustrative content
  - encoding format
  - production method
  - sound content
  - applied material
  - base material
  - reduction ratio
Elements in AACR2

**AACR2**: information embedded in “other physical details” (or a non-specific note)

- Other physical details
- MARC 300 $b

Illustrative content
- Encoding format
- Production method
- Sound content
- Applied material
- Base material
- Reduction ratio

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RDA data elements

- **separated** according to whether it is data about content or carrier:
  - illustrative content
  - sound content
  - encoding format
  - production method
  - applied material
  - base material

- **controlled vocabulary** recommended for many elements:
  - aspect ratio: full screen, wide screen, mixed
  - base material: Bristol board, canvas, cardboard, ceramic, glass, leather, paper, parchment, vellum
More elements

for example, **new** data elements for electronic resources:

- **file type**
  - data file
  - streaming video file

- **encoding format**
  - DAISY
  - DVD audio
  - image
  - audio
  - MP3
  - GIF
  - JPEG
  - text
  - TIFF
  - HTML
  - PDF
  - text
  - MS Word

- **uniform resource locator**
300+ RDA data elements

- still recording the same kind of information
  - title
  - edition
  - date of publication
- record in distinct data elements
- record with more precision

- data that a human can use
- data that is machine actionable
- each element has the potential to be used:
  - to search
  - to navigate
  - to retrieve
  - to build meaningful displays of data

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Designed to be flexible and extensible

- elements to describe all known types of content and carriers
- easily extensible to describe resources yet to be developed
  - many data elements – each precisely defined
  - data elements can be used in any combination

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Core Elements

300+ elements but you don’t have to use them all

core elements

- **not** a level of description
- core elements are a **minimum** “a floor, not a ceiling”
- **must** include any additional elements required to differentiate the resource or entity from a similar one
- **may** include additional elements – as required to complete user tasks
Core elements

- core elements support a **subset** of user tasks
- core elements support the **key** user tasks (as identified in the FRBR and FRAD models)
  - identify and select a manifestation
  - identify works and expressions embodied in a manifestation
  - identify the creator or creators of a work
  - find a person, family, or corporate body associated with a resource
  - identify a person, family, or corporate body

- summary of core elements in introduction: 0.6

- general guidelines for each section: core elements
Core Elements

- certain elements are flagged as “core”
  - title proper
  - designation of edition
  - preferred name for the person

- certain elements are flagged as “core if”
  - date of distribution if date of publication not identified
  - extent is core if resource is complete or if the total extent is known

- element is core but can omit some data
  - place of publication (if more than one, only the first)
What is RDA?

RDA = a set of practical instructions based on a theoretical framework

- scope of RDA
- theoretical framework based on the FRBR and FRAD conceptual models
- role of objectives and principles
- data elements: an aspect of RDA’s design
RDA - standard for now and the future

RDA 0.3.1

The FRBR and FRAD models provide RDA with an underlying framework that has the scope needed to support comprehensive coverage of all types of content and media, the flexibility and extensibility needed to accommodate newly emerging resource characteristics, and the adaptability needed for the data produced to function within a wide range of technological environments.

Understanding RDA

• theoretical framework
• a framework for today and tomorrow
Understanding RDA

- day 1 of implementation: “shoe-horn” RDA into MARC 21
- day 1 of implementation is only the point of transition
- RDA: not simply RDA in MARC 21
- day 1 of implementation allows us to begin travelling along the new track
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