Preparing for the new RDA Toolkit: special topics

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Presented at the RSC outreach seminar
National Library of Spain, Madrid, 23 Oct 2017

(amended)
Overview

- Topic 1: Serials, aggregates, and changes over time
- Topic 2: Types of description
- Topic 3: Developing attributes as relationships

Slides 18 and 19 have been amended following discussion on meta-works vs work clusters by the RDA Steering Committee. Other slides have minor amendments.
1.1: Changes over time

- Static and diachronic works
- ROF extension attributes
- Extension expectation vocabulary
Static and diachronic works

A **static work** is realized and embodied at the same time*.

A **diachronic work** is realized and embodied in a duration of time**.

* The content is issued in a single act

** The content is issued in a sequence of single acts that effectively change the content

***Time? Time-span entity?
Changing plans

The essence of a diachronic work is the plan for the change of content:

• Replacement? = Integration
• Accumulation? = Succession

The future may not conform with the plan ...

The last episode of a TV serial is not made 😞

... so we cannot describe a diachronic work (or expression or manifestation) until it is complete

But we can describe the plan, and the distinct "issue" WEMs 😊
ROF Extension attributes

RDA/ONIX Framework for Resource Categorization

Extension requirement:
• Not applicable
• Essential
• Inessential

Qualified by Extension mode (integration, succession) and Extension termination (determinate, indeterminate) to form "Extension expectation" categories
### "Extension expectation" terms

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static work</td>
<td>A work intended to be realized in one or more distinct expressions that are embodied simultaneously.</td>
</tr>
<tr>
<td>Integrating monographic work</td>
<td>A work intended to be realized in one distinct expression embodied during a fixed time-span.</td>
</tr>
<tr>
<td>Sequential monographic work</td>
<td>A work intended to be realized in multiple distinct expressions embodied during a fixed time-span.</td>
</tr>
<tr>
<td>Integrating continuing work</td>
<td>A work intended to be realized in one distinct expression embodied during a time-span with no ending.</td>
</tr>
<tr>
<td>Serial work</td>
<td>A work intended to be realized in multiple distinct expressions embodied during a time-span with no ending.</td>
</tr>
</tbody>
</table>

Aggregates?
1.2: Serial works

• Serial works and LRM relationships
• Change in work plan; WEM lock
• Boundary of serial work; ISSN and ISSN-L (clarified)
Serial work

A work intended to be realized in multiple distinct expressions embodied during a time-span with no ending.

Work-Work relationships
• LRM-R19 precedes [logical, not chronological]
• LRM-R22 was transformed into [by policy, etc.]

Expression-Expression relationship:
• LRM-R25 was aggregated by
DiachronicW 1

DiachronicW 2

DiachronicE 1

DiachronicE 2

IssueW 1A

IssueE 1A

IssueW 2A

IssueE 2A

IssueE 1A

IssueE 1B

IssueE 2B

IssueW 1B

IssueW 2B

transformed into

aggregated by

precedes

aggregated by

precedes

AggregateM

AggregateM
Changes in Serial work plans

LRM: The plan of a serial work includes the editorial concepts that guide the production of the issues that comprise an aggregate manifestation.

Any changes to the plan may result in a new serial work.

The national edition of *El País* is a different serial work than the Valencia edition of *El País*. The plan for the content has changed, resulting in a new serial work.
WEM lock (1)

Because a serial work is also a plan for how a serial will be expressed and manifested, it may only have one expression and one manifestation.

Just because something is true now, does not necessarily mean that it will be true in the future.
Translated editions should be treated as different expressions of different serial works.

It is impossible to predict that a single serial work will always be published in both Spanish and Valencian. At some point, publication may cease for one of the language editions, but not the other.
Similarly, a serial released in an online version and a print version should be considered instances of 2 different serial works.

It is impossible to predict that a single serial work will always be published in both a print and online version.

It is also impossible to predict that the online and print versions will always share the same content.
A new serial work is generated when the plan for an already existing serial work changes.

RDA will provide instructions for recording changes to elements associated with the plan for a serial work.

But RDA can provide only general guidance on determining when a change of plan results in a new work.
Significance

Change of: Language Frequency Carrier type Title

Timeline of serial work

SerialW A1 transformed into SerialW B1

SerialW A2 transformed into SerialW B2

transformed into
Judging boundaries

It will be up to local policy and cataloguer’s judgment to:

• Select the elements for describing the plan
• Select the elements for recording changes in their value
• Select the elements and values that justify the description of a new work
• Select the issue or iteration that provides the values used in a serial work

This will prevent unnecessary proliferation of serial works.
ISSN and ISSN-L

Because of the WEM lock, an ISSN should be understood as an identifier for a serial work, as opposed to an identifier for a manifestation.

An ISSN-L should be understood as an identifier for a group of closely related serial works, i.e. a "work cluster". In this case it, is the same “work” in different “mediums.”

In RDA, the relationship between the ISSN-L work cluster and the ISSN serial work can be indicated by recording the ISSN-L for each serial work.
Serial work cluster

Serial Work Cluster

Serial Work 1

Serial Work 2

has identifier

“ISSN 0264-2875”

“ISSN-L 0264-2875”

“ISSN-L 0264-2875”

“ISSN 1750-0095”
1.3: Aggregates

- Types of aggregate
- Whole/part; Combination works
- Short-cuts through aggregating expressions
Types of aggregates

An aggregate is a manifestation embodying multiple distinct expressions.
Types of aggregates: 1

Aggregate collections of expressions

W1: Danza ritual del fuego
E1: Performance by Leonard Bernstein and the New York Philharmonic
M: España (Columbia Records ML 6186)
E2: Performance by Leonard Bernstein and the New York Philharmonic
W2: Sombrero de tres picos

E1 embodies E2

E1 realizes W2
Types of aggregates: 2

Aggregates resulting from augmentation

W1: Don Quixote by Cervantes
E1: Content Type: Text
realizes

M: Don Quijote de la Mancha
(Madrid: Edimat Libros, 2004)

E2: Content type: Still image

W2: Illustrations by Gustavo Doré

embodies
Types of aggregates: 3

Aggregates of parallel expressions

W1: Beowulf (Epic poem)

E1: Text in Old English

realizes

E2: Text translated into Modern English by Seamus Heaney

embodies

Beowulf (New York, 2000)
Plans for aggregates (1)

Aggregate manifestations also embody an aggregating expression which realizes an aggregating work.
Plans for aggregates (2)

The **aggregating work** is the plan, realized in the **aggregating expression**, for the selection and arrangement of the **distinct expressions** in the **aggregate manifestation**.

Understanding FRBR

*W1: An introduction to Functional ...*

*W2: Understanding the ...*

*E1: Text in English*

*E2: Text in English*

*Understanding FRBR (Libraries Unlimited, 2007)*
The aggregating work does not contain the distinct works. There is no whole-part relationship...
But there is a relationship, LRM-R25, between the aggregating expression and the expressions it selects.

**AW:** Work plan for *Selected poetry of Lord Byron*

**AE:** Expression of the plan ...

**Selected poetry of Lord Byron (Modern Library, 2001)**

**W1:** She walks in beauty

**E1:** Text in English

**W2:** To Belshazzar

**E2:** Text in English

aggregated by
Whole/part works and expressions

Whole/part works are distinct from aggregating works. The parts are always intended to belong to the whole.

Each part of a whole/part work is realized by a corresponding part expression.
Combination works

Works that are conceived as whole, with contributions by one or more agents intended to be integral to the whole. They are neither whole-part nor aggregating works.

Examples of combination works include:

• Silent films (moving image + text)
• Films with soundtracks (moving image + ...)
• Songs (music + text)
• Graphic novels (still image + text)
Types of combination work

**Amalgamated content**: Content of a single type that is associated with two or more different creator roles. The content cannot be separated from the combination work to derive a new work. Example: acting and lighting design in a motion picture.

**Composite content**: Content of two or more types that is associated with one or more creator roles. The content can be separated from the combination work to derive a new work. Example: music and libretto in an opera.
2.1: Description in context

• Description as (RDF) statements

• Semantic web applications
  • Open World Assumption

• Attributes and relationships
  • 4-fold path; distinct "records"
Resource Description Framework

RDF (Resource Description Framework): the format of the Semantic Web

Data are recorded as triples: each triple is a single statement in subject-predicate-object order

A description ("record") is one or more triples with the same subject:

• This Work – [has] title of work – "My title"
• This Work – [has] creator – That Agent
Open world description

Semantic Web Open World Assumption:

No data does not imply "not applicable".

All description is open-ended; there is always something more that can be said about a subject entity.

Work1  [has] title of work  "My title"
        [has] creator  Agent2
        [has] expression of work  Expression3
        [Etc …]
        [is] remade as (work)  Work4
        [Etc … ⇒ the future]
Related descriptions

A related entity (triple object) can be recorded as a "string" label or as an IRI. An object IRI can be the subject of another triple statement; a related entity may have its own description.

\[
\text{Work1} \quad \text{[has]} \quad \text{creator} \quad \text{Agent2}
\]

\[
\text{[Etc ...]}
\]

\[
\text{Agent2} \quad \text{[has]} \quad \text{name of agent} \quad \text{"Jane Doe"}
\]

\[
\text{[Etc ...]}
\]

\[
\text{[is]} \quad \text{creator of} \quad \text{Work1}
\]
Recording descriptions

A description can contain statements that mix "string" values with entity (or concept) IRIs. The same *predicate* element is used in statements with different kinds of *object* values.

Work1  \text{[has]} creator  \\
[has] creator  \\
[has] creator  \\
[has] creator

Agent2  \\
"Jane Doe"  \\
"Doe, Jane, 1999-"  \\
"DoeJ99"

Agent2  \text{[has]} name of agent  \\
[is] creator of  \\
"Jane Doe"  \\
Work1
2.2: Relating WEM

- Primary WEMI stack (locks)
  - Item mediated thru Manifestation
- "Component" relationship types
  - Whole-part
  - Aggregates
  - "Complementary" combination components
- Mode of issuance of manifestation
  - Single and multi-unit
Primary WEMI relationships

WEMI "stack" (primary FRBR relationships)

- Work
  - realizes [1 and only 1 work]
- Expression
  - embodies [1 or more expressions]
- Manifestation
  - exemplifies [1 and only 1 manifestation]
- Item

In LRM, most Item attributes and relationships are mediated via the (one and only one) Manifestation
Whole-part WEM relationships

Whole "stack" has part "stacks"
Aggregate WEM relationships

W: Aggregating
E: Aggregating
M: Aggregated

W: Aggregated
E: Aggregated

realizes

aggregates

embodies
Serial WEM relationships

Manifestation embodies one and only one expression

W: Serial
E: Serial
M: Serial

W: Issue
E: Issue
M: Issue

realizes [1 and only 1 work]

aggregates

embodies [1 and only 1 expression]
Combination WEM relationships

Component WEM is only described if it is separately embodied

W: Combination realizes W: Libretto
E: Combination embodies E: Libretto
M: Combination embodies M: Libretto

???
Mode of issuance of a manifestation

A manifestation can be issued as either:

• a **single unit**, consisting of a single physical or logical unit.
• a **multiple unit**, consisting of two or more physical or logical units.

A single unit can be a component of a multiple unit manifestation

<table>
<thead>
<tr>
<th>Manif1 [has] part</th>
<th>Manif2 [is] part of</th>
</tr>
</thead>
<tbody>
<tr>
<td>[has] part</td>
<td>&quot;Name of {Manif2}&quot;</td>
</tr>
<tr>
<td>[has] part</td>
<td>“Includes 20 discs”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manif2 [is] part of</th>
</tr>
</thead>
<tbody>
<tr>
<td>[is] part of</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manif1 [is] part of</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A 20 disc set”</td>
</tr>
</tbody>
</table>
2.3: Issues

- Focus of description now entity-based
- "Analytical description" is a set of statements describing a component of a larger entity, and one of those statements might have an IRI or a string label for the larger entity as its object
- "Comprehensive description" is a set of statements describing a larger entity, and one of those statements might have an IRI or a string label for the component entity as its object
- Relationship with "coreness"
3.1: Attribute/relationship duality

- LRM
- RDA 4-fold path
- High-level relationship matrix
Attribute vs Relationship

Distinction is blurred in LRM
  LRM optimized for Semantic Web applications
  Distinction determined by data

Web Ontology Language (OWL):
Data value is a string (literal)
  ⇒ OWL datatype ⇒ attribute element
Data value is a thing (IRI): entity or concept/term
  ⇒ OWL object ⇒ relationship element

⇒ RDA Recording methods (4-fold path)
Recording methods for related data

RDA Entity 1 is associated with (related to)
- "note on related entity"
- "access point for related entity"
- "identifier for related entity"

has attribute / relationship
- "unstructured description"
- "structured description"
- "identifier"

IRI

RDA Entity 2

datatype property

object property
High-level relationship matrix

is associated with (related to)
3.2: Impact on RDA elements

- New LRM entities
- Cross-over attribute elements
- Hierarchies and inverses
Dates, names, and places

- Place
  - "Madrid"
  - "Madrid (Spain)"
  - "MAD"

- Timespan
  - "2017"

- Nomen
  - "title proper"

- has place of publication
- has date of publication
- has title proper
Work to Nomen relationship hierarchy

- [has] related nomen (work)
- [has] appellation of work
- [has] identifier for work
- [has] title of work
- [has] preferred title of work
- [has] variant title of work
- [has] access point of work

AAP

VAP

new element

sub-property of
Place relationship hierarchy

High-level relationship matrix

- related entity (place)
  - related agent (place)
    - related collective agent (place)
      - related corporate body (place)
        - place associated with corporate body of
          - Location of conference, etc. of
          - Other place associated with corporate body of
    - related family (place)
      - place associated with family of
  - related person (place)
    - Country associated with person of
    - Place of birth of
    - Place of death of
    - Place of residence, etc. of

Inverse of current attribute ⇒ relationship element
3.3: Impact on RDA Toolkit

- Relationships as context and navigation
- Related entities and 4-fold path
- Micro and macro views of relationship elements/designators
Hierarchy in context

Appellation of place

- Recording

For sub-types of this element, see:

- Place: Access point of place
- Place: Identifier for place
- Place: Name of place

Recording an unstructured description

For instructions on recording an unstructured description, see

- Place: Name of place
Hierarchy in context

Name of place

Recording

For sub-types of this element, see:

- Place: Preferred name of place
- Place: Variant name of place

For super-types of this element, see:

- Place: Appellation of place

This element is used for Place: Recording an unstructured description.

Recording an unstructured description

If the source of information is a manifestation being described
Hierarchy in relationship

Place of birth of

- Recording
  Record a place of birth of as a related Person.

- For a broader relationship see:
  - Place: Related person (place)

- For the inverse relationship see:
  - Person: Place of birth
Recording an entity

Person entity

Definition and Scope

Data: OmrURI, rdaregistry.info-Eleme

Recording

Recording an unstructured description

For instructions on recording an unstructured description, see Person: Name of person

For general guidance and instructions on recording an unstructured description, see

- Recording RDA Data Values: Recording an unstructured description

Recording a structured description
Many more "designators"

- High-level relationship matrix (12 x 12 entities)
- Cross-over attribute/relationship elements
- New relationship elements (appellation hierarchy; aggregate/serial works; etc.)
- New relationship elements for consistent and complete hierarchies
The exploding designator appendix

Current Toolkit approach assumes primary (WEMI) and secondary (PFC) entities, and cannot scale

Toolkit data workflow allows flexible outputs:

- Designators in context of element
- Designators in context of entity
- All designators in one giant "appendix"
Thank you!

- Discussion!