The Future of Integrated Library Systems

Part One: RDA & Cataloging

May 11, 2011

Speakers: Robert Maxwell & John Espley

Entity-Relationship Model

• Entity: Something that can be distinctly identified.
• Relationship: An association between two or more entities.
• Attribute: A characteristic that may identify instances of entities or relationships.

The Future of the ILS: The Potential of RDA

Robert L. Maxwell
Chair, Special Collections and Formats Catalog
Department
Harold B. Lee Library
Brigham Young University
Provo, Utah, U.S.A.

Entity-Relationship Diagramming

• Entities

• Relationships

• Attributes
Entity-Relationship Diagramming

![Entity-Relationship Diagram]

FRBR Entities

- Group 1: The products of intellectual or artistic endeavor. Sometimes called “the primary entities.”
  - **Work**: a distinct intellectual or artistic creation
  - **Expression**: the intellectual or artistic realization of a work in some form (e.g. alpha-numeric, musical notation)
  - **Manifestation**: the physical embodiment of an expression (e.g. a print publication)
  - **Item**: a copy of a manifestation

FRBR Relationships (Group 1)

- Work realized through Expression embodied in Manifestation exemplified by Item

FRBR/FRAD Entities

- Group 2: entities responsible for Group 1 entities
  - Person
  - Family
  - Corporate body
FRBR Entities

- Group 3: entities that can be subjects of works
  - Any group 1 or group 2 entity, and
  - Concept
  - Object
  - Event
  - Place

FRBR/ RDA Attributes

- FRBR, a model, defines attributes, but does not tell us how to record the data
- RDA, a cataloging code, defines attributes and does tell us how to record the data
**Person Entity Attributes**

- **Preferred name:** Mitchell, Margaret
- **Fuller form of name:** Margaret Munnerlyn
- **Variant name:** Marsh, John Robert, Mrs.
- **Date of birth:** 1900 November 8
- **Date of death:** 1949 August 16
- **Gender:** female
- **Place of birth:** Atlanta, Ga.
- **Language of the person:** English

**Possible Cataloger Form**

- **Person description**
  - **Preferred name:** Mitchell, Margaret
  - **Fuller form:** Margaret Munnerlyn
  - **Variant name:** Marsh, John Robert, Mrs.
  - **Date of birth:** 1900 November 8
  - **Date of death:** 1949 August 16
  - **Country associated with person:** U.S.
  - **Field of activity:** American literature
  - **Profession:** author
  - **Biographical information:** Language of the person: English
  - **Place of birth:** Atlanta, Ga.

**System-generated label:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949

**Person Entity Attributes (MARC)**

```
046  $f 19001108 $g 19490816
100 1 $a Mitchell, Margaret $q (Margaret Munnerlyn), $d 1900-1949
400 1 $a Marsh, John Robert, $c Mrs., $d 1900-1949
370  $a Atlanta, Ga. $c U.S.
372  $a American literature
374  $a author
375  $a female
377  $a eng
```
**Work Entity Attributes**

- **Preferred title:** Gone with the wind
- **Form of work:** Novel
- **Date of work:** 1936
- **History of the work:** Romantic novel first published in May 1936; it won the Pulitzer Prize in 1937.
- **Summarization of the content:** Scarlett O'Hara, the spoiled daughter of a well-to-do plantation owner, must overcome the challenges facing the South during and after the Civil War.

**Possible Cataloger Form**

- **Work description**
  - **Preferred title:** Gone with the wind
  - **Variant title:**
  - **Form of work:** novel
  - **Date of work:** 1936
  - **Place of origin:**
  - **Other distinguishing characteristic:**
  - **History of the work:** Romantic novel first published in May 1936; it won the Pulitzer Prize in 1937.
  - **Summarization of the content:** Scarlett O’Hara, the spoiled daughter of a well-to-do plantation owner, must overcome the challenges facing the South during and after the Civil War.

- **System-generated label:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind

**ER Database**

- **Work:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind
- **Person:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949.

**ER Database**

- **Work:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind
- **Person:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949.
- **Expression:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind. **Spanish** (Luaces and Gómez de la Serna)
- **Person:** Luaces, Juan G. de
- **Person:** Gómez de la Serna, Julio
Possible Cataloger Form

**Manifestation description**
Title proper: Gone with the wind
Statement of responsibility: Margaret Mitchell
Edition statement: [First edition]
Place of publication: New York, NY
Publisher’s name: Macmillan
Date of publication: 1936
Copyright date: ©1936
Series statement:
Extent: 1037 pages
Dimensions: 22 cm
Identifier (ISBN):

ER Database

**Work:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind
- **Person:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949.
  - **Expression:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind. English
  - **Manifestation:** Format: volume
    Publisher: New York : Macmillan, 1936
    Edition: [First edition]

**ER Database**

**Work:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind
- **Person:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949.
  - **Expression:** Mitchell, Margaret (Margaret Munnerlyn), 1900-1949. Gone with the wind. English
  - **Manifestation:** Format: volume
    Publisher: New York : Macmillan, 1936
    Edition: [First edition]
ER Database Retrieval

Person: [set of Russian person entities]

Expression: [English-language expressions]

Work: [Target set]

created by

realized through

has a genre

Concept: Science fiction

How do we get there?

• Implement RDA
  – Agree to include attributes in entity descriptions that will allow for accurate retrieval

• Design a working Entity-Relationship database structure

• Devise ways to deal with legacy MARC data

The Future of the ILS: The Potential of RDA

Robert L. Maxwell
robert_maxwell@byu.edu
The Future of ILS: What an Ideal ILS Might Look Like

John Espley
NISO Webinar
May 11, 2011

Overview

1. RDA Implementation Scenarios
2. RDA Workflow
3. Simpler RDA Cataloging
4. VTLS RDA/FRBR Extensions
5. Cataloging Assistance

RDA

- Implementation scenarios
  Number 3 – Flat file data structure
  Number 2 – Linked bibliographic and authority records
  Number 1 – Relational/Object oriented data structure
  The system of the future!
RDA Workflow

Implementation Scenario 1 the future
Create Work
Add Expression
Add Manifestation
Add Item/Holdings

Later, when additional Manifestations are acquired
✓ Add Expression, if needed
✓ Add Manifestation

Metadata and RDA

- MARC Dead?
- Dublin Core
- MODS
- XML
- RDA Vocabularies
- Many others
- Metadata Management System
RDA Work Record

- Preferred title
- Form of work
- Date of work
- Authorized access point associated with work
  - Primary
  - Secondary
- Notes
- Subjects
  - Concept, Object, Event, Place

RDA Expression Record

- Content type
- Language of Expression
- Date of Expression
- Other distinguishing characteristics
- Notes
- Authorized access point associated with Expression

RDA Manifestation Record

- Title proper
- Statement of responsibility
- Edition statement
- Publication statement
  - Place, publisher, date
- Series statement
- Notes
- Media type
- Carrier type
- Extent
Add RDA Manifestation

RDA Manifestation Template

RDA Manifestation record

Work, Expression, Manifestation
Simpler RDA Cataloging

When additional Manifestations are acquired

- Add Expression, if needed
  - Different language
  - Different performance
  - Different content type
    - Text, Spoken word, Performed music, etc.
  - Different text
- Add Manifestation

A new RDA Manifestation

![A new RDA Manifestation](image1.png)

Two RDA Manifestations

![Two RDA Manifestations](image2.png)
The other RDA Manifestation

A new RDA Expression

New RDA Expression

New RDA Expression
Expanding the Display

Further expanding the display

VTLS RDA/FRBR Extensions

- Related Works
  - Super Works
  - Derivative Works
- Reverse trees for better navigation
  - Aggregates

Related Works

- A motion picture based on a novel is a new work
- A new play derived from a work
  - "Rosencrantz and Guildenstern Are Dead" by Tom Stoppard

- Need to relate the new work to the original work
  - Super Work or Derivative Work technique
    - Super Work means all related Works are equal
    - Derivative Work means related Works are subordinate to original Work
RDA Cataloging Assistance

Cataloging assistance
- Templates for original cataloging
- RDA Toolkit
- Macros
- MARC content designation validation
- Authority record templates

Questions?

Thank you!