Understanding FRBR for RDA and Beyond

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Objectives

By the end of this class, you will:

• Become familiar with the ideas of the *Functional Requirements for Bibliographic Records* (FRBR)

• Know the rationale and goals behind FRBR

• Be introduced to the *Functional Requirements for Authority Data* (FRAD) and *Functional Requirements for Subject Authority Data* (FRSAD)

• Understand FRBR’s influence on *Resource Description and Access* (RDA)
Understanding FRBR for RDA and Beyond

Day 1: June 12, 2013
Why FRBR?

- Stockholm, 1990 - Conference of IFLA Universal Bibliographic Control & International MARC Programme and the IFLA Division of Bibliographic Control
- Changes in catalog/library environment
- What is the purpose of a bibliographic record?
- FRBR Task Force/Study Group formed
The Changed Environment

- Automation and new technologies
- Bibliographic utilities
  - Large scale bibliographic databases
- Cooperative cataloging
- Administrative desire to decrease costs
  - Economic pressure
- Greater variety of media in library collections
  - Electronic publishing
- User expectations and needs
FRBR Did Not Arise in a Vacuum

• Some cataloging history
  – Panizzi, Cutter, Lubetzky, the Paris Principles?

• Combine with database design theory
  – To fulfill objectives of the library catalog
  – Group versions of works
  – Show relationships between resources
Functional Requirements for Bibliographic Records

- Final report published 1998 by IFLA Section on Cataloguing
  - Amended and corrected 2009

- “[T]o delineate in clearly defined terms the functions performed by the bibliographic record with respect to various media, various applications, and various user needs” – p. 2.
Entity-Relationship Model

- Database design model
- Conceptual model of abstract concepts
- Entity - a thing with an identity
  - Entities have attributes (characteristics)
- Relationships
  - Between different entities at different levels
- Provides for organization of records in database – “clustering”
“User Tasks”

How do catalog users

• Find
• Identify
• Select
• Obtain

... the resources they want?
FRBR Entities

• **Group 1**
  Products of intellectual or artistic endeavor

• **Group 2**
  Responsible for the content, production or custodianship of Group 1 entities

• **Group 3**
  Serve as subjects of Group 1 entities
FRBR/RDA Entities

1. Work, expression, manifestation, item (WEMI)

2. Person, corporate body

3. Concept, object, event, place

Relationships between & among these.
What is a “book”?
What is a “book”? 

- The object on the shelf?
What is a “book”?

• The object on the shelf?
What is a “book”?

• Something of which you order a copy?
What is a “book”?

- Something of which you order a copy?

Manifestation
What is a “book”?

• A certain edition or version of ... ?
What is a “book”? 

• A certain edition or version of ... ?

Expression
What is a “book”?

- A story, a narrative, a set of ideas?
What is a “book”?

• A story, a narrative, a set of ideas?
Group 1 Entities

Work
A distinct intellectual or artistic creation

Expression
Intellectual or artistic realization of a work

Manifestation
Physical embodiment of an expression of a work

Item
Single exemplar of a manifestation
Distinct intellectual or artistic creation

Attributes:
- title, form, date, audience, etc.

Maurice Sendak’s *Where the Wild Things Are*
A realization of a work in the form of
- Alphanumeric characters, Musical or choreographic notation, Sound, Image, Object, Movement, etc.

Attributes:
- language, form, date, other distinguishing characteristic, content, etc.

Where the Wild Things Are in Spanish, in text
- Spanish, the language, is an attribute
MANIFESTATION

Physical embodiment of an expression

Attributes:

- Title, statement of responsibility, publisher, date, extent, dimensions, etc.

- Donde viven los monstruos published by Alfaguara in 2005, measures 24 cm.
A single example of a manifestation

Attributes:
- item identifier, provenance, marks, etc.

The copy of *Donde viven los monstruos* from Alfaguara in your library’s collection.
- The barcode is an attribute of that item.
Group 1 Entities

The Novel

- Critical Edition
  - Paper
    - Copy 1
- Original Text
- Translation
  - PDF
  - HTML

WORK

EXPRESSION

MANIFESTATION

ITEM
FRBR Relationships

• High Level / Primary Relationships
  – Relationships inherent in entities
    • e.g. A Work “is realized by” an Expression

• Relationships among works / Content or Bibliographic relationships
  • e.g. Work to work, Expression to Expression, Whole / part, Aggregate / component
FRBR Entities

Group 1 Primary / Inherent Relationships

Abstract - Intellectual, artistic content

Physical – recording of content

Relationships inherent to an entity
FRBR Group 1 Relationships: Bibliographic / Content

- **Work to Work**
  - successor, supplement, complement, summarization, adaptation, transformation, imitation

- **Expression to Expression**
  - abridgement, revision, translation, arrangement

- **Manifestation to Manifestation**
  - reproduction (reproduction, reprint, facsimile, etc.)
  - alternate (format, simultaneously released ed.)

- **Whole / Part Relationships**
  - volume of a multivolume manifestation; aggregate/component

- **Part / Part Relationships**
  - sequential, accompanying, companion
Work or Expression?

- Revisions, updates, abridgements, enlargements, translations, musical arrangements, dubbed or subtitled versions of film are EXPRESSIONS of a work.
- Paraphrases, rewritings, adaptations from one literary or artistic form to another, abstracts, digests, summaries are NEW WORKS.
- Minor variations permitted within same expression (amendment in late 2007).
Bibliographic / Content Relationships

From Barbara Tillett’s presentation “FRBR Model”, Feb. 2, 2004

Different Works

Where The Wild Things Are

- floor puzzle, 60 cm x 90 cm, sold in the mid-1990s

Where The Wild Things Are

- a 34 frame filmstrip produced by Morton Schindel in 1968
Different works

- *Romeo and Juliet* by Shakespeare
- George Cukor’s film of *Romeo and Juliet*
- Franco Zeffirelli’s film of *Romeo and Juliet*
- BBC TV production of *Romeo & Juliet*
- Baz Luhrmann’s film of *Romeo + Juliet*

Superwork?
FRBR Group 1 & 2 Relationships: Responsibility

WORK

EXPRESSION

MANIFESTATION

ITEM

PERSON

CORPORATE BODY

Family (added by FRAD)

Responsible for Intellectual / artistic content

is created by

is realized by

is produced by

is owned by
FRBR Group 3 Relationships: Subject

Subject of Works

WORK

EXPRESSION

MANIFESTATION

ITEM

PERSON

CORPORATE BODY

CONCEPT

OBJECT

EVENT

PLACE

FAMILIES
The FRBR Entity Relationship Model
Examples from FRBR Report

w1  Henry Gray's *Anatomy of the human body*
   - e1 text and illustrations for the first edition
   - e2 text and illustrations for the second edition
   - e3 text and illustrations for the third edition

w2  *The Wall Street Journal*
   - e1  the Eastern edition
     - m1 the print format of the Eastern edition
     - m2 the microfilm of the Eastern edition
   - e2  the Western edition
     - m1 the print format of the Western edition
     - m2 the digital version of the Western edition
Music, FRBRized

Work
Piano Sonata no. 14 in C minor, by Mozart

Expression
Piano Sonata no. 14 in C minor, performed by Awadagin Pratt

Manifestation
Pratt performance of Piano Sonata no. 14, on CD, released by EMI Classics, 2001

Item
Copy of this CD of Pratt’s performance in the Oberlin College Library’s music collection
Music Examples from FRBR

w1  J. S. Bach's *The art of the fugue*
   • e1  the composer's score for organ
   • e2  arrangement for chamber orchestra by Anthony Lewis

w2  Franz Schubert's *Trout quintet*
   • e1  the composer's score
   • e2  performance by the Amadeus Quartet and Hephzibah Menuhin on piano
   • e3  performance by the Cleveland Quartet and Yo-Yo Ma on the cello
FRBR Entities

1. Work, expression, manifestation, item

2. Person, corporate body

3. Concept, object, event, place
Understanding FRBR for RDA and Beyond

Day 2: June 13, 2013
FRBR Entities

1. Work, expression, manifestation, item

2. Person, corporate body, family (added by FRAD)

3. Concept, object, event, place
Functional Requirements for Authority Data (FRAD)

- **Find** - Information on an entity
- **Identify** - Confirm entity found is entity sought
- **Contextualize** ("Clarify" in RDA)
  - Put entity in context; clarify relationships among two or more entities
- **Justify** ("Understand" in RDA)
  - Document why form of name was chosen as basis for access point
- Additional entities: name, family, identifier, controlled access point, rules, agency
Functional Requirements for Subject Authority Data (FRSAD)

- **Find**
  - an entity corresponding to user’s criteria
- **Identify**
  - an entity based on specific attributes or characteristics
- **Select**
  - an entity appropriate to user’s needs
- **Explore**
  - relationships among entities
- **Entities:** thema, nomen
FRBR is not...

• a cataloging code
• a set of cataloging rules
• a data model
• a metadata scheme
• a system design
FRBRizing the Catalog

• “FRBRizing”: bringing together sets of Works, Expressions, Manifestations
  – Assist in user tasks (identification, selection)

• Better collocation and navigation
  – Clusters related materials for enhanced browsing
  – Especially beneficial in areas heavy with multiple versions (e.g. literature, music)
  – Clearer expression of relationships among resources

• More controlled, authoritative information
  – Improved productivity
Organization of Bibliographic Records in a Database

Work level records?
Expression level records?

What does FRBR look like?
It depends....
Group 1 Entities in a Bibliographic Record


<table>
<thead>
<tr>
<th>Entity Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Control No.</td>
<td>47023612</td>
</tr>
<tr>
<td>LCCN Permalink</td>
<td><a href="http://lccn.loc.gov/47023612">http://lccn.loc.gov/47023612</a></td>
</tr>
<tr>
<td>Type of Material</td>
<td>Book (Print, Microform, Electronic, etc.)</td>
</tr>
<tr>
<td>Personal Name</td>
<td>Shakespeare, William, 1564-1616.</td>
</tr>
<tr>
<td>Main Title</td>
<td>... Hamlet, traduit par André Gide.</td>
</tr>
<tr>
<td>Published/Created</td>
<td>[Paris] Gallimard [1946]</td>
</tr>
<tr>
<td>CALL NUMBER</td>
<td>PR2779.H3 G5</td>
</tr>
<tr>
<td>-- Request in</td>
<td>Jefferson or Adams Bldg General or Area Studies Reading Rms</td>
</tr>
</tbody>
</table>
Group 1 Entities in a Bibliographic Record


Expression

| LC Control No. | : 47023612 |
| LCCN Permalink | : [http://lccn.loc.gov/47023612](http://lccn.loc.gov/47023612) |
| Type of Material | : Book (Print, Microform, Electronic, etc.) |
| Personal Name | : Shakespeare, William, 1564-1616. |
| Main Title | : ... Hamlet, traduit par André Gide. |
| Published/Created | : [Paris] Gallimard [1946] |

CALL NUMBER | : PR2779.H3 G5Copy 1 |
-- Request in | : Jefferson or Adams Bldg General or Area Studies Reading Rms

LC Control No. : 47023612
LCCN Permalink : http://lccn.loc.gov/47023612
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Copy 1
-- Request in
  : Jefferson or Adams Bldg General or Area Studies Reading Rms
Cataloging Scenarios

1: A new expression for an existing simple work

- **Scenario 1: A new expression for an existing simple work**
  
  Jane Cataloger is assigned to work on a gift collection. Her first selection is a Latvian translation of Kurt Vonnegut's "Bluebeard: a novel."

- **She searches the library database for the original work, and finds:**
  - Author: Kurt Vonnegut
  - Preferred Title for the Work: Bluebeard: a novel.
  - Form of Work: Novel
  - Original Language of the Work: English

Cataloging Scenarios

1: A new expression for an existing simple work

- with links to the following expression information
  - Language of Expression: English
  - Content Type: Text

- and one manifestation
  - Place of Production: New York
  - Publisher: Delacorte Press
  - Date of Production: 1987
  - Extent: 300 pages
  - Resource Identifier: 0385295901
Cataloging Scenarios

1: A new expression for an existing simple work

- Jane begins her description by linking to the existing Work entity. She then creates an expression description:
  - Language of Expression: Latvian
  - Translator: Arvida Grigulis

- She creates an authority record for the translator since none yet existed. She continues by creating a fuller description for the new manifestation, linking to the authority record for the Latvian publisher (what luck, it already existed!).
  - Title: [in Latvian]
  - Place of Production: Riga
  - Publisher: Liesma
  - Date of Production: 1997
Research Projects Involving FRBR

- OLAC Work-Centric Moving Image Discovery Interface Prototype

- OCLC
  - FRBR Work-Set algorithm
  - Work Records in WorldCat
  - WorldCat Genres
  - Classify

OCLC Research:
  http://www.oclc.org/research/activities/past/orprojects/frbr/default.htm
### 4. Citizen Kane (1941)

**Alternate Titles:** American; John Citizen, U.S.A.;

**Director:** Welles, Orson, 1915-1985

**Language:** English

**Country:** United States

**Genres:** Feature; Fiction; Drama;

**Description:** The story of Charles Foster Kane, a newspaper tycoon whose life is investigated by a magazine reporter trying to discover the meaning of Kane’s dying word: “Rosebud”.

**Get from a library:**

<table>
<thead>
<tr>
<th>Format</th>
<th>Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spoken Language: English</td>
<td>Aspect Ratio: Full screen (1.37:1)</td>
</tr>
<tr>
<td>VHS (1996)</td>
<td>B, C, E, F</td>
</tr>
<tr>
<td>Spoken Language: English</td>
<td>Aspect Ratio: Full screen (1.37:1)</td>
</tr>
<tr>
<td>Spoken Language: English</td>
<td>Subtitle Languages: English; French; Spanish; Portuguese</td>
</tr>
<tr>
<td>Spoken Language: English</td>
<td>Aspect Ratio: Unspecified</td>
</tr>
<tr>
<td>LaserDisc (1991)</td>
<td>D</td>
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<tr>
<td>Spoken Language: English</td>
<td>Aspect Ratio: Unspecified</td>
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<tr>
<td>VHS (1988)</td>
<td>F</td>
</tr>
<tr>
<td>Spoken Language: English</td>
<td>Aspect Ratio: Unspecified</td>
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<tr>
<td>LaserDisc (1987)</td>
<td>D</td>
</tr>
<tr>
<td>Spoken Language: English</td>
<td>Aspect Ratio: Unspecified</td>
</tr>
</tbody>
</table>

OLAC = Online Audiovisual Catalogers Association
FRBR Work-Set Algorithm

- Open source and free
- Automated process that
  - Extracts information from MARC21 records
  - Compares it to a name authority file
  - Creates a key to uniquely and confidently identify a Work-set
- Example
  - Brought together over 400 records for The Adventures of Sherlock Holmes by Sir Arthur Conan Doyle under one heading
## Search results for "tale of two cities"

Results 1–10 of about 2,562 (18 seconds)

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Author(s)</th>
<th>Format</th>
<th>Language</th>
<th>Publisher</th>
<th>Year</th>
<th>View all editions and formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A tale of two cities</td>
<td>Charles Dickens; Hablot Knight Browne; Frederick Barnard</td>
<td>Book; Fiction; Juvenile audience</td>
<td>English</td>
<td>New York, Dodd, Mead &amp; Co., 1942</td>
<td></td>
<td>View all editions and formats</td>
</tr>
<tr>
<td>2</td>
<td>Charles Dickens' A tale of two cities</td>
<td>Jack Conway; David O Selznick; W P Lipscomb; S N Behrman; Ronald Colman; Basil Rathbone; Henry B W Oliver; Charles Dickens; Metro-Goldwyn-Mayer.; Warner Home Video (Firm);</td>
<td>DVD video</td>
<td>English</td>
<td>Burbank, CA: Distributed by Warner Home Video, [2006]</td>
<td></td>
<td>View all editions and formats</td>
</tr>
<tr>
<td>3</td>
<td>A graveyard for lunatics: another tale of two cities</td>
<td>Ray Bradbury</td>
<td>Book; Fiction</td>
<td>English</td>
<td>New York: Knopf ; Distributed by Random House, 1990.</td>
<td></td>
<td>View all editions and formats</td>
</tr>
</tbody>
</table>
To kill a mockingbird

Lee, Harper.

358 editions in 23 languages, held by 19908 libraries

Summary
The explosion of racial hate in an Alabama town is viewed by a little girl whose father defends a black man accused of rape.

Formats

Find Any Edition In A Library

http://www.oclc.org/research/activities/workrecs.html
WorldCat Genres

• “Genre profiles”
  - Arthurian romances, Comedy television programs, Horror films, Romantic suspense fiction, Spy stories

• Aggregates author & title information based on FRBR

• Related subject headings (e.g., topics, characters, people, places, organizations) generated statistically

• Profiles based on genre terms from Guidelines On Subject Access To Individual Works Of Fiction, Drama, Etc. (GSAFD), 2nd ed.
Mystery fiction

Definition
Used for novels and stories dealing with the detection and solution of crime.

Related Genres
Non-fiction

Children & Teens
Authors Books Movies & TV

Related
Subjects Characters Places Other Links WorldCat Lists Mixed & Sub Genres

Recent Additions

Explore more recently added: Books Audiobooks

Authors, Books & Movies

Authors
Patterson, James, 1947-
Parker, Robert B., 1932-2010
Christie, Agatha, 1890-1976
Perry, Anne
Cornwell, Patricia Daniels

Books
Prestuplenie i nakazanie
Death on demand
Midnight lounge mysteries
Adventures of sherlock holmes

Movies & TV
Sherlock Holmes
Harry Potter and the Half-Blood Prince
Doubt
The curious case of Benjamin Button
Changeling
Classify

Records grouped using the Work-Set algorithm to form a work-level summary of class numbers and subject headings
- More than 36 million WorldCat records with DDC, LCC, or NLM Classification numbers.
- Records also include subject headings from the Faceted Application of Subject Terminology (FAST) scheme

Classify database accessible through a user interface and as a machine-to-machine service

www.oclc.org/research/activities/classify/default.htm
Underlying RDA

- *Functional Requirements for Bibliographic Records (FRBR)*
- *Functional Requirements for Authority Data (FRAD)*
- *Statement of International Cataloguing Principles (ICP)*
- In the future, *Functional Requirements for Subject Authority Data (FRSAD)*
FRBR and RDA

- RDA incorporates FRBR concepts
  - FRBR/FRAD entities = RDA entities

- RDA data elements to focus on FRBR and FRAD user tasks
  - FRBR attributes = RDA attributes
  - FRBR relationships = RDA relationships

- RDA released June 2010
  - LC RDA Day One Implementation: March 31, 2013
  - PCC Day One for Authority Records: March 31, 2013
RDA’s Structure

Recording Attributes
Sections 1 – 4

Recording Relationships
Sections 5 - 10
Recording Attributes

1. Of manifestation and item (chap. 1-4)
   title, edition statement, date, identifier, etc.

2. Of work and expression (chap. 5-7)
   title, content type, date, form, etc.

3. Of person, family, corporate body (chap. 8-11)
   name, identifier, dates, etc.

4. Of concept, object, event, place (chap. 12-16)
   (chap. 12-15, not yet written yet)
5. Recording primary relationships between work, expression, manifestation and item (chap. 17)
6. To persons, families, and corporate bodies associated with resource (chap. 18-22)
7. To concepts, objects, events and places associated with a work (chap. 23, not yet written)
8. Between works, expressions, manifestations and items (chap. 24-28)
9. Between persons, families, and corporate bodies (chap. 29-32)
10. Between concepts, objects, events and places (chap. 33-37, not yet written)
Thank You for Attending!

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We would appreciate your feedback: