

Latest news!  
IFLA LRM's impact on cataloguing

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IFLA  
Library Reference Model  
Overview

# Preparing IFLA LRM

- Consolidation of 3 separate FR family models
  - FRBR (1998) + FRAD (2009) + FRSAD (2011) => IFLA LRM
- IFLA LRM builds on existing models, but
  - Resolves inconsistencies
  - Has more general approach, broadens coverage
- World-Wide Review ended May 1, 2016
- Text revised, August 2016-April 2017
- Model sent for approval of IFLA Committee on Standards, April 17, 2017
- Draft available, <https://www.ifla.org/publications/node/11412>

# Modelling Decisions

- High-level conceptual model (i.e. general)
- Framework that can be expanded (extended)
- Used entity-relationship modelling language (entities, attributes, relationships)
- Model the data needed to fulfil user tasks, not library operations

# User Tasks

- Find
- Identify
- Select
- Obtain
- Explore
- Tasks provide model's functional scope
- Confirm end-user focus of the model
- No library internal processes reflected in the tasks
- Reworded definitions to be more inclusive
- **Deprecated**  
FRAD:Contextualize  
FRAD:Justify

# Entities (FRSAD)

## Res

- (means 'Thing' in Latin)
- Any entity in the universe of (bibliographic) discourse
- **Renamed** from FRSAD:Thema
- But **redefined** without reference to the subject relationship
- Top entity, all others are subclasses of it
- Needed for more than the subject relationship

# Entities (FRBR group 1)

## **Work**

- The intellectual or artistic content of a distinct creation

## **Expression**

- A distinct combination of signs conveying intellectual or artistic content

## **Manifestation**

- A set of all carriers that are assumed to share the same characteristics as to intellectual or artistic content and aspects of physical form. That set is defined by both the overall content and the production plan for its carrier or carriers

## **Item**

- An object or objects carrying signs intended to convey intellectual or artistic content

# Entities (FRBR group 2)

## Agent

- An entity capable of deliberate actions, of being granted rights, and of being held accountable for its actions
- 2 **new** entities
- Agent = superclass of Person and Collective Agent
- Agent simplifies responsibility relationships

## Collective Agent

- A gathering or organization of *persons* bearing a particular name and capable of acting as a unit
- *Family* and *Corporate Body* included in Collective Agent
- FRBR and FRAD definitions of Person are incompatible

## Person

- An individual human being
- Decision: use FRBR Person
- NB: Nomen entity handles “bibliographic identities”



# Entities (naming)

## Nomen

- An association between an entity and a designation that refers to it
- Name = Nomen, entities merged
- Defined *via its function* as a way of referring to some specific instance of another entity
- A string is not a Nomen until it is used to name something

# New Entity: Place

## Place

- A given extent of space
- Place names refer to areas with fuzzy boundaries or that change over time
- Place is a cultural notion
- FRBR definition (*a location*) seems restricted to spatial coordinates

# New Entity: Time-span

## Time-span

- A temporal extent having a beginning, an end and a duration
- NB: Precision of recording may vary
- Even brief intervals of time (such as days) have an extent
- Dates are a form of Nomen for Time-spans
- No relation to FRBR entity **Event**

# Deprecated entities

Concept

Object

Event

Identifier

Controlled Access Point

Rules

Agency

(Place)

- **Deprecated**
- As they are not a universal categorization of "other" entities
- An implementation can choose to use them as categories under Res, if useful
- In part redundant, replaced by relationships or attributes (category) of other entities

# Entities: Summary

- **11 entities in total (reduced from 18)**
- 5 from FRBR (WEMI, Person)
- 1 from FRSAD (Res=Thema)
- 1 from both FRAD+FRSAD (Nomen=Name)
- 4 **new** (Agent, Collective Agent, Place, Time-span)
- *10 entities deprecated (Family, Corporate Body, Identifier, Controlled Access Point, Rules, Agency, Concept, Object, Event, Place)*

# Properties: Attributes or Relationships?

- A property is defined using a relationship when it links two entities declared in the model
- A property is defined using an attribute when it provides other information significant for characterizing an entity
- This information can be given as:
  - Values from a controlled list
  - Transcribed data (literal)
  - Free-text (literal)

# Attributes

## Data describing instances of entities

- Goal to list only important or representative attributes
  - Must not repeat/redo ISBD
- 37 attributes defined for 10 entities
- NOT an exhaustive listing of possible attributes
- Implementations can expand by adding the attributes that are needed

# Attributes: Res

## Category

- A type to which the *res* belongs
- Allows the creation of sub-classes of entities

## Note

- Any kind of information about a *res* that is not recorded through the use of specific attributes and/or relationships
- Both apply to all entities without needing to be repeated in the model



# WEMI Attributes: Summary

- Total: 18 attributes
- Work: 2 – Category, Representative expression attribute
- Expression: 8 – Category, Extent, Intended audience, Use rights, Cartographic scale, Language, Key, Medium of performance
- Manifestation: 6 – Category of carrier, Extent, Intended audience, Manifestation statement, Access conditions, Use rights
- Item: 2 – Location, Use rights

# Representative Expression Attribute

- **New** WORK attribute
- An attribute which is deemed essential in characterizing the *work* and whose values are taken from a representative or canonical *expression* of the *work*
- Generally multivalued, the attributes chosen depend on the Category of *work*
- The source expression(s) for each attribute may vary, criteria defined by cataloguing standards

# Manifestation Statement

- A statement appearing in exemplars of the *manifestation* and deemed to be significant for users to understand how the resource represents itself
- All transcribed data is a kind of statement
- Significant feature of the *manifestation* entity
- Generally typed by the cataloguing rules according to desired granularity (titles, statements of responsibility, edition, publisher statement, place of publication, etc.)
- May be composed as a whole, or as individual statements

# Former Work and Expression Attributes

- Replaced by relationships
  - to Nomen: Title
  - to Nomen: Numeric designation (for musical works)
  - to Place: Place of ..., Place of origin
  - to Time-span: Date of ...
- Aspect of the subject relationship: (Geographic) Coordinates

# Former Manifestation and Item Attributes

- Replaced by relationships
  - to Nomen: Identifier, Fingerprint
  - to Nomen: Title
  - to Agent: Publisher/Distributor, Fabricator/Manufacturer, Provenance
- Removed material-specific (Manifestation)
- Removed administrative metadata (Item)
- Replaced by **Manifestation Statement**
  - Replaced most FRBR attributes of Manifestation (except for those not transcribed)

# Attributes: Nomen

- **Category**, Scheme, Intended audience
- **Context of use** (Information as to the context(s) in which a *nomen* is used by the *agent* who is referred to through it)
- **Reference source** (A source in which there is evidence for the use of the *nomen*)
- **Nomen string**
- Language, Script, Script conversion

# Attributes: Place and Time-span

## Place

- **Category** (A type to which the *place* belongs)
- **Location** (A delimitation of the physical territory of the *place*)

## Time-span

- **Beginning** (A value for the time at which the *time-span* started)
- **Ending** (A value for the time at which the *time-span* ended)

# Modelling Bibliographic Identities

- Identities are recognized through clusters of *nomens* (of a *person*) used in a **Context of use**
- The *Context of use* may be defined as precisely as useful, including by type of *work*, audience...
- Bibliographically useful *nomen* clusters are the object of authority records and have sufficient reality to be identified by ISNI
- *Reference sources* provide evidence to link specific *nomens* to the cluster



# Relationships Overview

- Used when both source and target (domain and range) are entities
- 36 distinct relationships
- Inverse relationships, if applicable, have the same ID as direct relationships
- Can be *refined* to generate more specific relationships
- These specific relationships may also differ in cardinality, etc. from their parent

# Relationships of Place and Time-span

- All specific *Place of ...* or *Date of ...* relationships are *refinements* of the general super-relationships (associated with)
- Replace many attributes
- Also whole-part relationship :
  - PLACE has part (is part of) PLACE
  - TIME-SPAN has part (is part of) TIME-SPAN

# Next Steps

- IFLA Committee on Standards approval process
- Develop a namespace in RDF for the model, based on entity, attribute, relationship IDs
- Implementation of model (ISBD, RDA, etc.)

# The impact of LRM on RDA (1)

- Outcomes of May 17 RSC+ meeting in Chicago
- 3R project
  - RDA Toolkit Restructure and Redesign Project
  - New elements
    - Manifestation statement, for identification, using only transcribed data and given transcription rules (e.g., ISBD)
    - Medium of performance
    - Access points?
  - 12 entities
    - Res probably not implemented
    - New: Nomen, Agent, Collective agent, Place, Time-span

# The impact of LRM on RDA (2)

- Replace *person, family, corporate body* with *agent*
- Replace *resource* with specific entity in the WEMI stack
- Extend “4-Fold Path” for data capture and format:
  1. Unstructured description (e.g., transcription, free text note)
  2. Structured description (e.g., an access point)
  3. Identifier (i.e., a string)
  4. IRI for the entity for linked data applications

# More on RDA

- *Aggregates*
- Sources of information: provenance of data extended to most elements
- Next RSC meeting 24-26 October 2017, Madrid

# The impact of LRM on ISBD

- Alignment of elements done, April 2017
  - *resource* aligned as sub-class of *res*
  - complete areas aligned as < to *manifestation statement*
  - encoding schemes aligned as sub-classes of *res*
- Outcomes:
  - Not everything is mapped to *manifestation*
  - Mapping to relationships:
    - In general excluded, unless explicit (whole-part, aggregates, accompanying materials, notes, identifiers)
    - Will be fully reconsidered in revision process

# Next steps for ISBD

- Publish alignment table ISBD-LRM, once approved by IFLA Committee on Standards
- During IFLA Conference (19-24 August 2017, Wroclaw) organise revision process
- 25 August 2017 full-day meeting to analyse impact of LRM (on ISBD, RDA, etc.)
- After IFLA: start of revision process



# ISBD in the future

- Will implement LRM for descriptive data
- Will be (more) relational
- Will be as detailed as is now (but describing “principles” on which rules are based)
- Will be extended to non-published resources
- Will become one of RDA policies for descriptive data?

# International Cataloguing Principles

- 2016: new minor revision of ICP
- Published online,  
<https://www.ifla.org/publications/node/11015>
- Foreseen revisions:
  - Entities
  - Terminology
  - User tasks

# ICP

- Terms no longer used in 2016 Statement
  - Authority record See Authority data
  - Bibliographic record See Bibliographic data
  - Collection
  - Concept See Thema
  - Content type See Content form
  - Event See Thema Object See Thema Place See Thema

## More news: ICA RiC-CM

- Records in Context: a conceptual model for archival description
- Draft 0.1 presented in Seoul, 5-10 September 2016
- 14 entities, 67 properties, 792 relationships, 2 properties of relationships
- WWR ended Jan 31 2017, several comments received
- New version expected!

# More news: Italy

- Rules for non-published music resources in preparation
  - For all music resources (manuscripts, recordings, on electronic carriers, printouts, etc.)
  - Will implement LRM (*manifestation, manifestation singleton, manifestation statement*)
  - Will apply in part ICA RiC-CM (*record, record set*)
  - Draft for review available July 2017

# Fresh News: Yesterday

- New standard ISBD document approved (with few edits) by IFLA Committee of Standards
- LRM approved as well?

# Thank you!

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I wish to thank Pat Riva, chair of the LRM Consolidation editorial committee, for letting me reuse and arrange the slides describing the model from a presentation she gave on April 2017.