

FRBRoo,  
the IFLA Library Reference Model,  
and now LRMoo :  
A circle of development

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# Background

Modelling is never a simple straightforward process. We need:

- Participants from different backgrounds
- Open discussions, clarifications
- Reflection
- Flexibility

FRBR (1998)

FRBRoo 1.0 (2009)

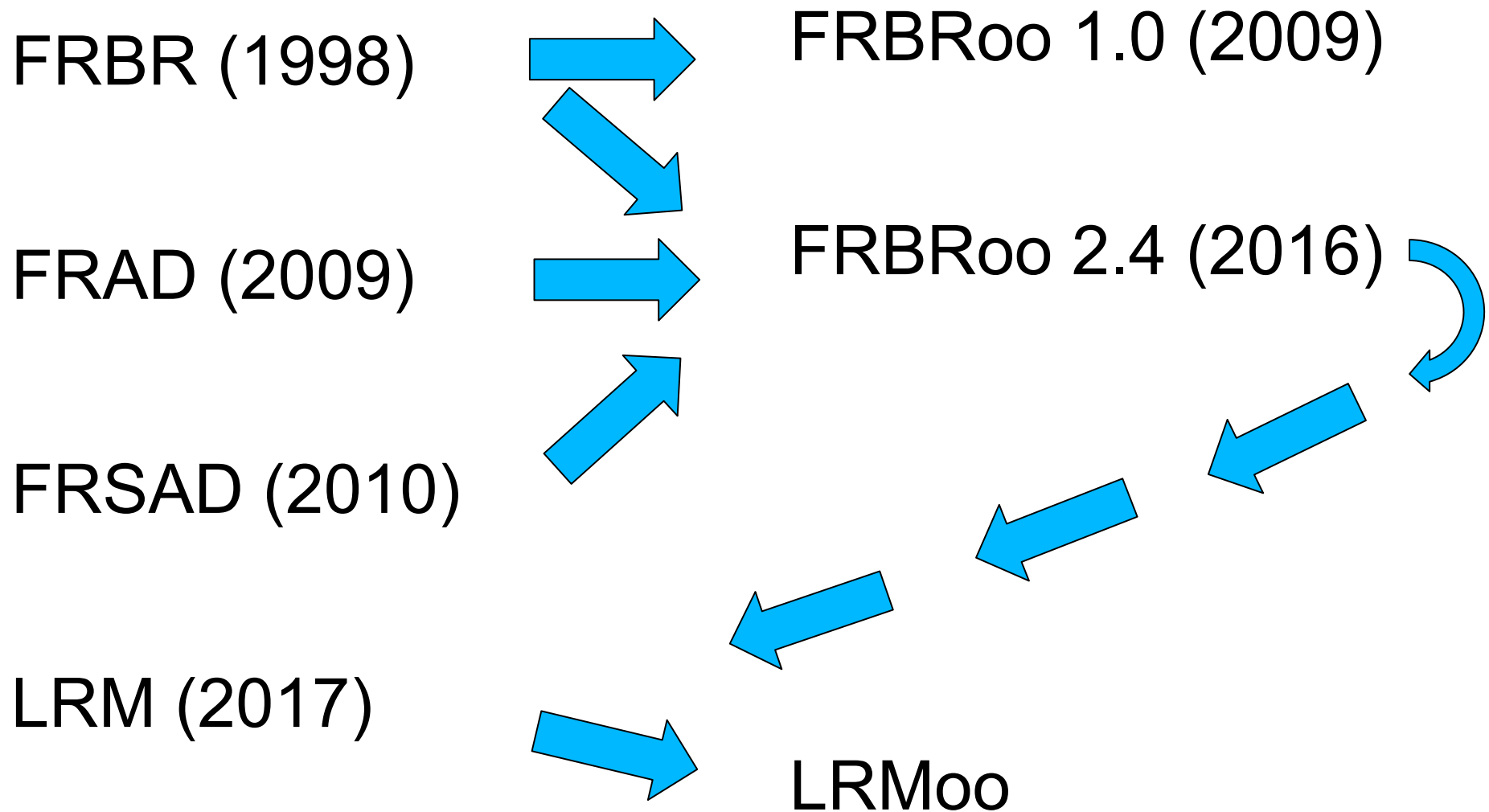
FRAD (2009)

FRSAD (2010)

LRM (2017)

FRBRoo 2.4 (2016)

# Entity-relationship to object-oriented



# Previous Rounds of Development

- FRBR (1998) transposed to create FRBRoo 1.0 (2009)
- FRAD (2009) and FRSAD (2010) added to produce FRBR 2.4 (2016)
  - A “consolidated” model
- IFLA LRM (2017) now being transformed to create LRMoo (renamed from FRBRoo 3.0)

# Influence of FRBRoo on LRM

- We will look at 3 areas of influence
- Entity hierarchies
- Representativity
- Modelling of bibliographic identities

# Entity hierarchies

- CIDOC CRM organises classes in a superclass / subclass structure
- FRBRoo does so also
- Many advantages in simplification of properties
- LRM adopted an **enhanced** entity-relationship framework with a 3-level entity hierarchy
  - Streamlining of attributes and relationships
  - Particularly visible with Agent
  - Res as superclass

# Representativity in FRBRoo

- FRBRoo 1.0 introduced classes and properties  
F41 Representative Manifestation Assignment  
F42 Representative Expression Assignment  
R40 has representative expression  
R41 has representative manifestation product type
- Assuming that features of a specific *manifestation* and *expression* are used to identify the *work*



# Representativity in LRM

- WWR version of LRM used a yes/no *expression* attribute for labelling a given *expression* as representative or not of the *work*
- Reworked in approved LRM as the *work* attribute LRM-E2-A2 Representative Expression Attribute
- To be typed to hold values at the *work* level, of *expression* attributes that characterise the *work* (the particular *expression* is not identified / described)

# Bibliographic Identities in FRBRoo

- FRAD included personas in the *person* entity
- FRAD and FRSAD defined entities for appellations, instead of using attributes
- FRBRoo 2.4 viewed identities as *nomen* used in a specific context attested to in a source
- Defined F35 Nomen Use Statement, class which links a *nomen* to its meaning
- Person remained compatible with E21 Person

# Bibliographic Identities in LRM

- LRM models bibliographic identities as *nomens* assigned to *agents* in contexts
- *Nomen* attributes include:
  - LRM-E9-A5 Context of use
  - LRM-E9-A6 Reference source
  - LRM-E9-A2 Nomen string
- LRM-E9 *nomen* defined as a reified relationship
- “association between an entity and a designation that refers to it”

# Towards LRMoo

- Work started April 2017
- LRMoo Working Group appointed at WLIC 2017
- Bring oo model into conformity with LRM
- Critically assess FRBRoo 2.4
- Opportunities for simplification
- Fit with new design principles for CRM extensions—FRBRoo was the first extension, now there is a CIDOC CRM “family”

# Influence on CIDOC CRM

- Distinction between *work* and *expression* brought into CRM via new subclasses of E28 Conceptual Object
  - E89 Propositional Object (superclass of F1 Work)
  - E90 Symbolic Object (superclass of F2 Expression)
- Declaration of E99 Product Type
- Review of special types of E41 Appellation, deprecated E82 Actor Appellation

# Future Development

- LRMoo draft to be completed in 2018 (?)
- Testing of LRM in implementations
- Extensions and refinements for different contexts