### FREEING FRBR

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# FUNCTIONAL REQUIREMENTS FOR BIBLIOGRAPHIC RECORDS

- Published by the International Federation of Library Associations 1998
- Updated 2009
- Superceded 2017 by the Library Reference Model
- Derived from library cataloging and international agreements

025.32

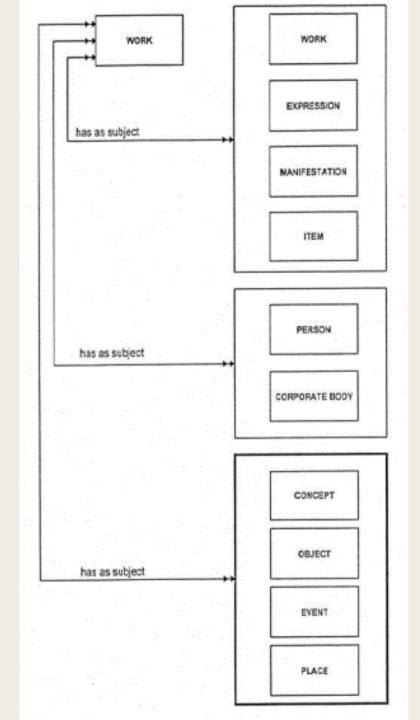
Gorman, Michael

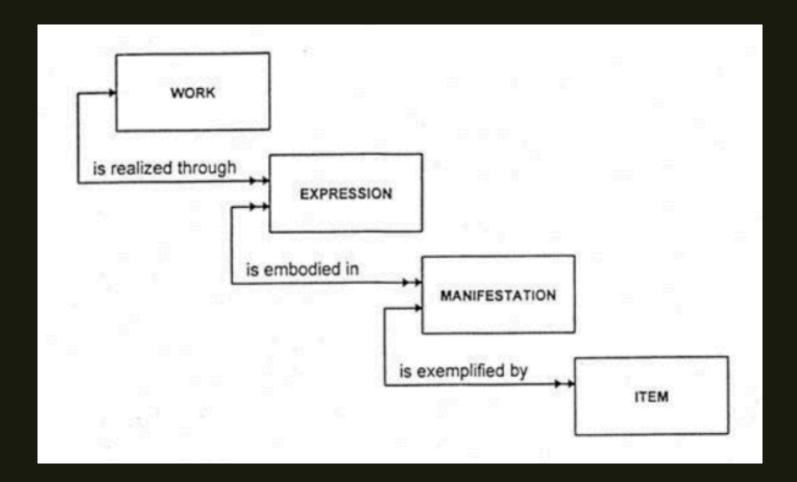
Gorman

The concise AACR2, 1998 revision / prepared by Michael Gorman. – Chicago : American Library Assoc., 1999. 168 p.; 23 cm.

Includes index ISBN 0-8389-3494-3

1. Anglo-American cataloguing rules. 2. Descriptive cataloging—Rules. I. Anglo-American cataloguing rules. II. Title: Concise Anglo-American cataloguing Rules, 1998 revision.





# "WEMI" (1998)

#### From abstract to concrete

- Work the idea plane
- Expression realized in signs
- Manifestation published
- Item physical plane

Table 4.1 Entity Hierarchy		
Top Level	Second Level	Third Level
LRM-E1 Res		
	LRM-E2 Work	
	LRM-E3 Expression	
	LRM-E4 Manifestation	
	LRM-E5 Item	
	LRM-E6 Agent	
		LRM-E7 Person
		LRM-E8 Collective Agent
	LRM-E9 Nomen	
	LRM-E10 Place	
	LRM-E11 Time-span	

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## WEMI defined in LRM

- 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'

### WEMI RINGS A BELL

Interest beyond the library world

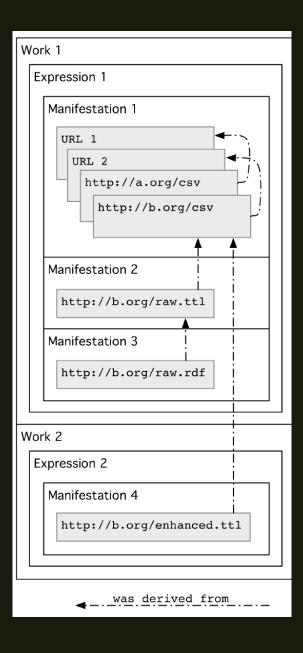
# BUT NOT EXACTLY AS DEFINED FOR LIBRARY DATA

#### All the WEMIs

- LRM-E2 Work (LRM)
- **F1 Work** (FRBRoo, PRESSoo)
- http://rdaregistry.info/Elements/c/C10001 (RDA)
- http://id.loc.gov/ontologies/bibframe/Work (BIBFRAME)
- http://purl.org/ontology/mo/MusicalWork (Music ontology) (sub FRBR core)
- http://purl.org/vocab/frbr/core#Work (FRBR Core)
  - FaBiO, FRIR,

### Music Ontology - Music WEMI

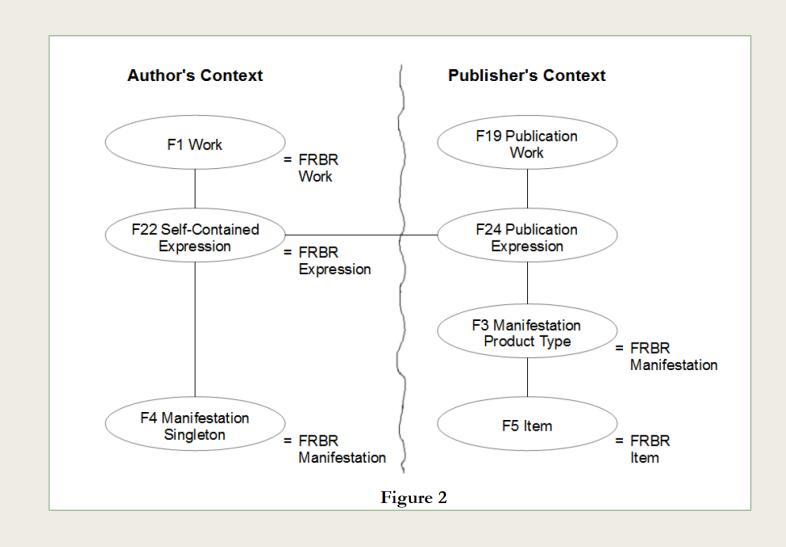
URI:	http://purl.org/ontology /mo/MusicalExpression	
Label:	musical expression	
Status:	unstable	
Subclasses:	Libretto, Lyrics, Score, Signal, SignalGroup,	
	Sound	
Parent Class:	http://purl.org/vocab/frbr/core#Expression	
Properties:	published_as	



# FRIR "INFORMATION RESOURCES"

https://ieeexplore.ieee.org/document/6148195

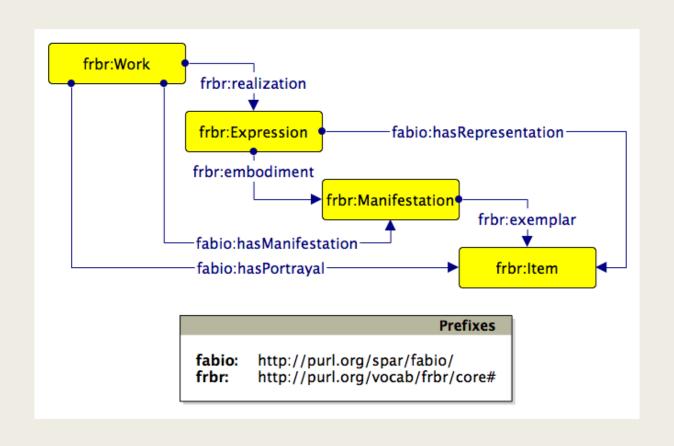
### **FRBRoo**



## Interfacing fast-fashion design industries with Semantic Web technologies The case of Imperial Fashion Silvio Peroni and Fabio Vitali

- class *Style*, i.e. the particular design of a certain article, characterised by a category (property *hasArticleCategory*) as defined in Section 3.2.1, and by a genre (male, female, or both);
- class *Item*, i.e. the specific item related to a certain style (property wasRealisedAs) realised using a particular texture (property wasMadeOf), and proposed for a certain season (property wasProposedFor);
- class StockKeepingUnit, i.e. a certain item available (property isAvailableAs) in a particular size (property hasSize) and colour (property hasColour);
- class *Piece*, i.e. the piece having a particular size and colour and related to a specific item.

## FRBR-aligned Bibliographic Ontology (FaBiO)



### A plethora of WEMIs

- No canonical version of the IFLA model in code
- Everyone creates their own WEMI
- None of these has any relationship to the others
- There is no super-class that would gather them

# SOME PROBLEMS WITH THE LIBRARY MODEL

### Object-oriented

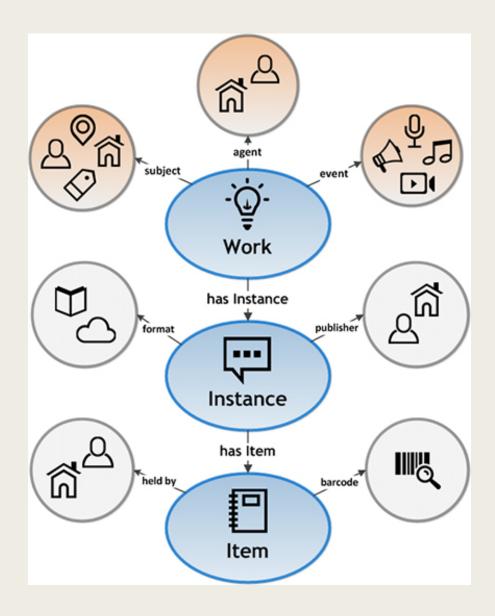
 LRM-E5 Item	LRM-E5-A1 Location
 LRM-E5 Item	LRM-E5-A2 Use rights
 LRM-E6 Agent	LRM-E6-A1 Contact information
 LRM-E6 Agent	LRM-E6-A2 Field of activity
 LRM-E6 Agent	LRM-E6-A3 Language

### Object-oriented design

- Ties attributes to classes
- E.g.
  - http://rdvocab.info/roles/printmakerManifestation
  - http://rdaregistry.info/Elements/i/relatedPersonOfItem

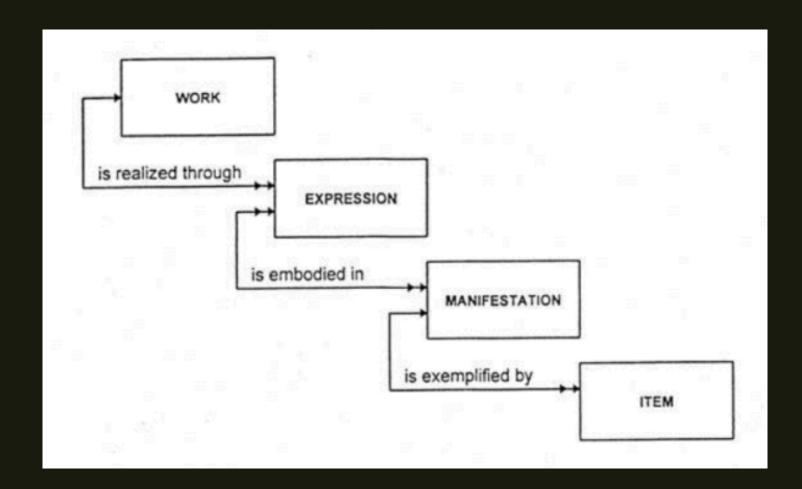
### Defined as disjoint

<b>Entities</b>		
Name	Definition	Constraints
Expression	A distinct combination of signs conveying intellectual or artistic content	Superclass: res The entities work, expression, manifestation, item are disjoint
	Name	Name Definition  Expression A distinct combination of signs conveying



### **BIBFRAME**

- W-I-I
- Combines FRBR Work and Expression into BIBFRAME Work



#### The WEMI chain

Forced through Expression to access Work information

Assumes inheritance

### A "freed" FRBR / WEMI

- any entity can be iterative (e.g. a work of a work)
- any entity can have relationships/links to any other entity
- no entity has an inherent dependency on any other entity
- any entity can be used alone or in concert with other entities
- no entities are disjoint
- anyone can define additional entities or subclasses
- individual profiles using the model may recommend or limit attributes and relationships, but the model itself will not have restrictions

# MINIMUM SEMANTIC COMMITMENT

Maxmimum reuse

### WEMI redefined

- 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'

Add some key relationships...

## Relationships between entities but unrestricted

- Work to Expression
- Work to Manifestation
- Work to Item
- Etc.

### Use only entities that are needed

work:

title: Acrobats

creator: Paul Klee

genre: abstract art

topic: acrobats

item:

size: 9 x 9

base material: paper

material: watercolor, pastel, ink

color: mixed

signed: PKlee

dated: 1914

work:

title: Acrobats

creator: Paul Klee

genre: abstract art

topic: acrobats

date: 1914

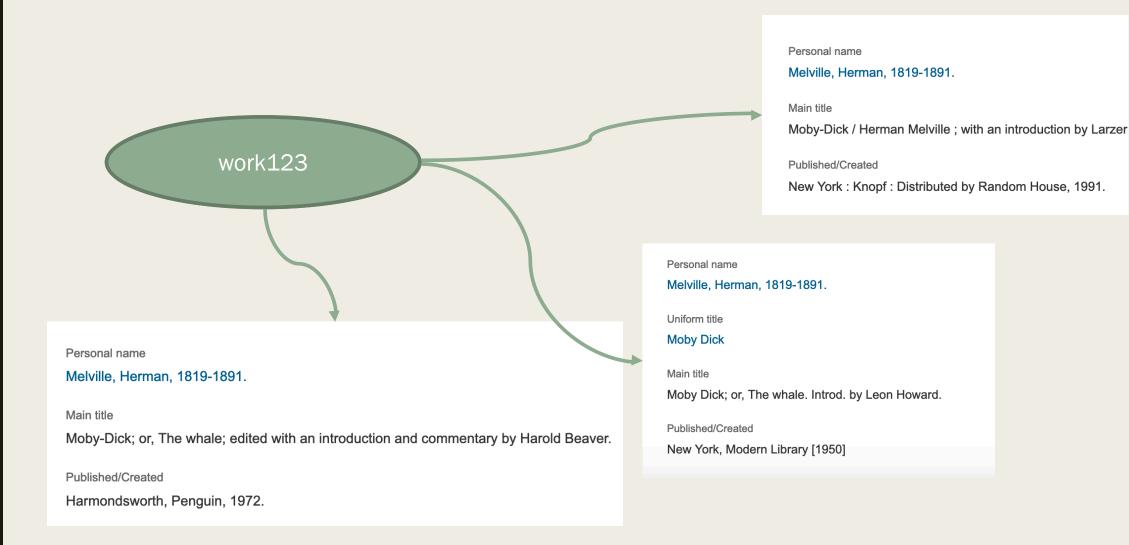
manifestation:

description: 12-color archival inkjet print

size: 24 x 36 inches

price: \$16.99

### Allow relationships to non-WEMI data



# Make it possible to declare relationships between non-WEMI data

Common Endeavour	http://open.vocab.org/terms/commonEndeavour	commonEndeavour is intended to define a FRBR (Functional Requirements for Bibliographic Records) relationship between two resources that may or mannot be modeled as FRBR
Common Expression	http://open.vocab.org/terms/commonExpression	This property is used to declare that two resources which may or may not conform to the FRBR (Function Requirements for Bibliographic Resources) entity may share the same Expression
Common Item	http://open.vocab.org/terms/commonItem	This property is used to declare that two resources which may or may not conform to the FRBR (Function Requirements for Bibliographic Resources) entity may share the same Item
Common Manifestation	http://open.vocab.org/terms/commonManifestation	This property is used to declare that two resources which may or may not conform to the FRBR (Function Requirements for Bibliographic Resources) entity may share the same Manifestation
Common Work	http://open.vocab.org/terms/commonWork	This property is used to declare that two resources which may or may not conform to the FRBR (Function Requirements for Bibliographic Resources) entity most share the same Work

### Just a start

- Are other "minimum commitment" entities needed?
  - Siblings to WEMI?
  - Additional relationships?
  - Additional entities?

### The community is key

■ Where can we host this work?

How can we reach out to the broadest community?

### THANK YOU

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