

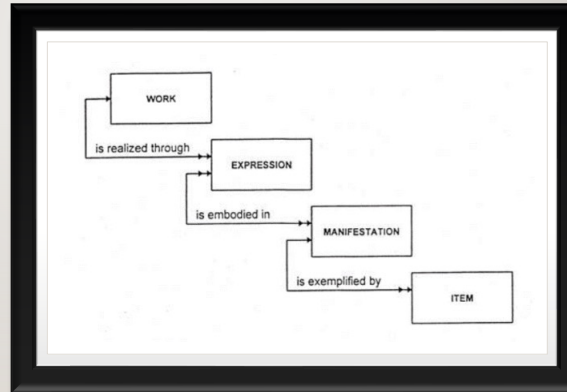
# THE OPENWEMI IDEA

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WORK – EXPRESSION – MANIFESTATION – ITEM

## FRBR-LRM WEMI

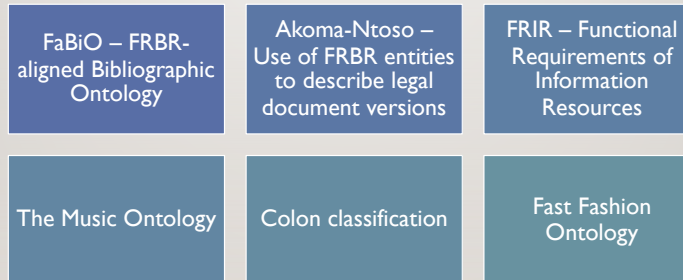
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This is the WEMI that we have all encountered before. It encompasses both relational database concepts and in its later incarnation, those of object-oriented design. It is strictly linear, each “thing” linking to the next thing, and no way to jump between them if you need to, and no obvious way to extend the model. In the documentation, each box defines the data elements that are allowed in that box. Both models include the attributes or elements that are valid for each “box”.

## THE MOTIVATOR: NON-TRADITIONAL USES OF WEMI CONCEPTS

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There are examples of folks that have discovered and used WEMI for their purposes. These resemble the library model but also differ from it in important ways. This was my original impetus for thinking about a more general approach to defining a less constrained model – one that can easily accommodate non-library uses. I ran into these interesting uses of WEMI outside of FRBR – outside of “bibliographic records”

What is interesting is that people from rather far-flung information areas have found WEMI useful for their purposes. As we’ll see, these examples use WEMI but not as defined in the original FRBR model.

Each of these is a vocabulary, some of which are not yet actionable, but some are being used today. And “used” means that they must be implemented as code.

## NO LIBRARY SCHEMA FOR FRBR/WEMI

### Expression of Core FRBR Concepts in RDF

(at vocab.org)

Term Name	Type	Definition
<a href="#">Concept</a>	class	An abstract idea or notion.
<a href="#">CorporateBody</a>	class	An organization or group of individuals and/or other organizations.
<a href="#">Endeavour</a>	class	Any of the products of artistic or creative endeavour.
<a href="#">Event</a>	class	An action or occurrence.
<a href="#">Expression</a>	class	A realization of a single work usually in a physical form.
<a href="#">Item</a>	class	An exemplar of a single manifestation.
<a href="#">Manifestation</a>	class	The physical embodiment of one or more expressions.
<a href="#">Object</a>	class	A tangible or material thing.
<a href="#">Person</a>	class	A living or dead individual.
<a href="#">Place</a>	class	A location.
<a href="#">ResponsibleEntity</a>	class	One responsible for the creation, production, distribution or maintenance of artistic or creative content.
<a href="#">Subject</a>	class	Something that may serve as the subject of a work.
<a href="#">Work</a>	class	An abstract notion of an artistic or intellectual creation.

2005, with a group in the UK who were designing an RDF-based library catalog IFLA did not create a metadata model for FRBR (they continue to insist that FRBR/LRM is a conceptual model, even though RDA embodies it in code -- ?) so this is still the only one available and it is defined as an RDF vocabulary  
The Core here is all of the classes (all three FRBR groups) and the properties that are relationships between them, like from Work to Expression, etc. And the bibliographic relationships like “translation of”  
Added some classes, like Endeavour, that included the entire bibliographic item – aka all of WEMI – something that IFLA stated clearly was not part of the FRBR model.

This is used by FaBiO, Music Ontology and others – in part because there is nothing else.

<a href="#">abridgement</a>	property	An abridgment of an expression.
<a href="#">abridgementOf</a>	property	An expression that is abridged.
<a href="#">adaption</a>	property	An adaption of a work or expression.
<a href="#">adaptionOf</a>	property	A work or expression that is adapted.
<a href="#">alternate</a>	property	An alternative to a manifestation.
<a href="#">alternateOf</a>	property	A manifestation that is alternated.
<a href="#">arrangement</a>	property	An arrangement of an expression.
<a href="#">arrangementOf</a>	property	An expression that is arranged.
<a href="#">complement</a>	property	A complement to a work or expression.
<a href="#">complementOf</a>	property	A work or expression that is complemented.
<a href="#">creator</a>	property	An entity in some way responsible for the creation of a work.
<a href="#">creatorOf</a>	property	A work that was in some way created by of an entity.
<a href="#">embodiment</a>	property	A manifestation that embodies an expression.
<a href="#">embodimentOf</a>	property	An expression that is embodied by a manifestation.

It also includes the primary bibliographic relationships, although I have not seen these used in the wild.

## BUILT-IN CONSTRAINTS

### Class: *Item*

**Definition:** An exemplar of a single manifestation.

This class corresponds to the FRBR group one entity 'Item'.

URI:	<a href="http://purl.org/vocab/frbr/core#Item">http://purl.org/vocab/frbr/core#Item</a>
Label:	item
Subclass of	<a href="#">frbr:Endeavour</a>
Disjoint with	<a href="#">frbr:Work</a> , <a href="#">frbr:Expression</a> and <a href="#">frbr:Manifestation</a>
Paraphrase	A <a href="#">frbr:Item</a> is something that, amongst other things, is a <a href="#">frbr:Endeavour</a> but is not a <a href="#">frbr:Work</a> and is not (experimental) a <a href="#">frbr:Expression</a> and is not a <a href="#">frbr:Manifestation</a>

## THE OPENWEMI PROPOSAL

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### CLASSES

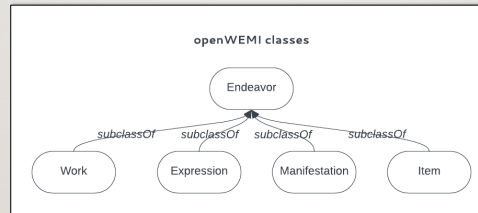
- openwemi:Endeavor
- openwemi:Work
- openwemi:Expression
- openwemi:Manifestation
- openwemi:Item

### PROPERTIES

- openwemi:expresses (range:Work)
- openwemi:manifests (range:Work or Expression)
- openwemi:instantiates (range:Work or Expression or Manifestation)

## ENDEAVOR IS THE SUPERCLASS THAT HOLDS IT TOGETHER

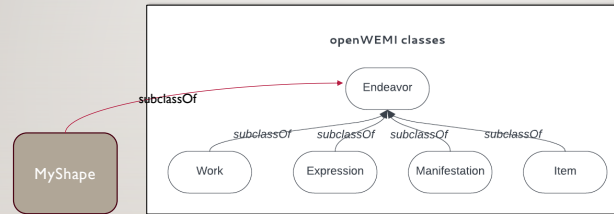
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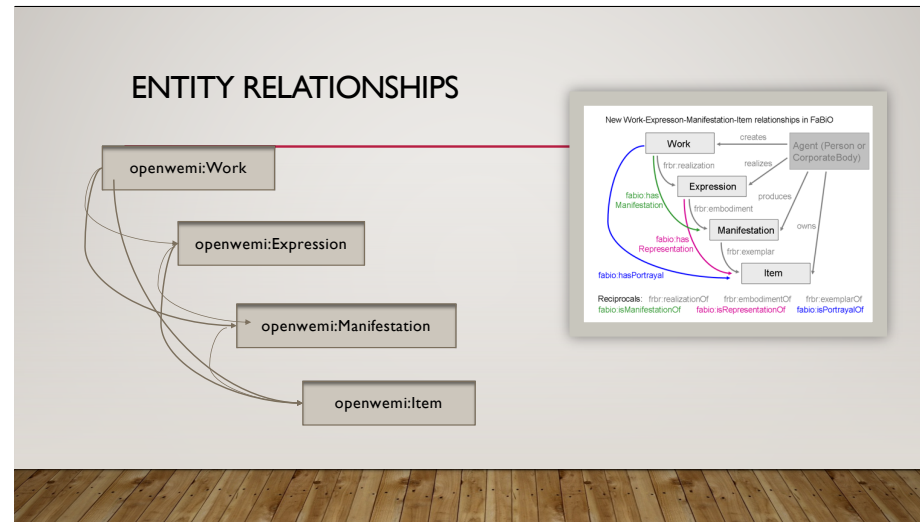




AND ALLOWS OTHER CLASSES TO BE CREATED AT A HIGH LEVEL TO  
COMPLEMENT OPENWEMI

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FRBR relationships are linear and you can't "skip" entities; openwemi allows other relationships between entities as long as they do not defy the general concepts, which is that the level of abstraction goes from Work (the most abstract) to Item (the least). In keeping with the RDF concept that your data may be incomplete without being wrong, this permits people to create the data they have on hand, and can fill in more at another time. It also allows different interpretations of the WEMI stack – for example, someone describing a sculpture may prefer to use Work and Item because the Item is unique and therefore there is no need to describe different expressions or manifestations.

## ADDED PROPERTIES

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- commonWork
- commonExpression
- commonManifestation
- commonItem

For use between disparate metadata entities. Subject and object may be totally different in their format and content.

Developed by Ross Singer at vocab.org many years ago. They are in the spirit of openwemi because they allow the use of the wemi concepts without any constraints on what the format or metadata coding of the subject and object are. These could be used, for example, to say that a song in musicbrainz and a youtube video of a cover of the song entail the same work. A book in Amazon and in a library database may be a commonManifestation. It doesn't say any more than that. commonItem may not have application but we put it out there – someone may find a use for it.

## VERY BROAD DEFINITIONS

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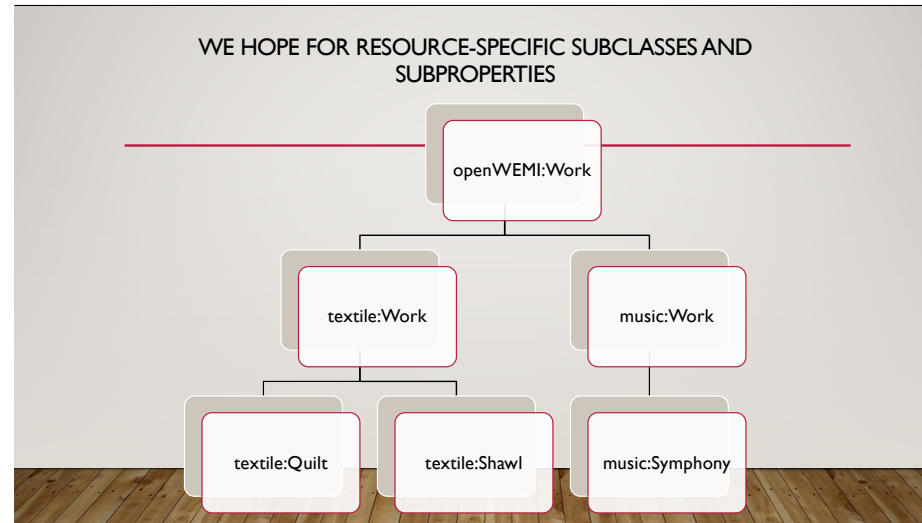
### LRM

- **Work:** "An abstract notion of an artistic or intellectual creation."
- **Expression:** "An expression of a work in signs."
- **Manifestation:** "The physical embodiment of one or more expressions"
- **Item:** "An exemplar of a single manifestation."

### OPENWEMI

- **Endeavor:** "A creation"
- **Work:** "An abstract notion of an artistic or intellectual creation."
- **Expression:** "A perceivable form of a creation."
- **Manifestation:** "The physical embodiment of a creation"
- **Item:** "An exemplar of a creation."

Note that in LRM, each definition refers to the entity "above" it; so a manifestation embodies an expression; and item is an exemplar of a manifestation. This enforces the linearity of that model, which we have specifically eliminated from openwemi.



How do I see these used, since they are very broad? We saw this with FaBiO and the Music ontology: you define your own w, ex, etc., with your own definitions, but that follow the general concepts. This is how the metadata examples we found are using FRBRcore from vocab.org.

THE OPENWEMI  
WORKING  
GROUP

- Phil Barker
- Sean Petiya
- Ross Singer
- Graeme Williams
- Karen Coyle (chair)

## LINKS AGAIN

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<https://dcmi.github.io/openwemi/>

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