

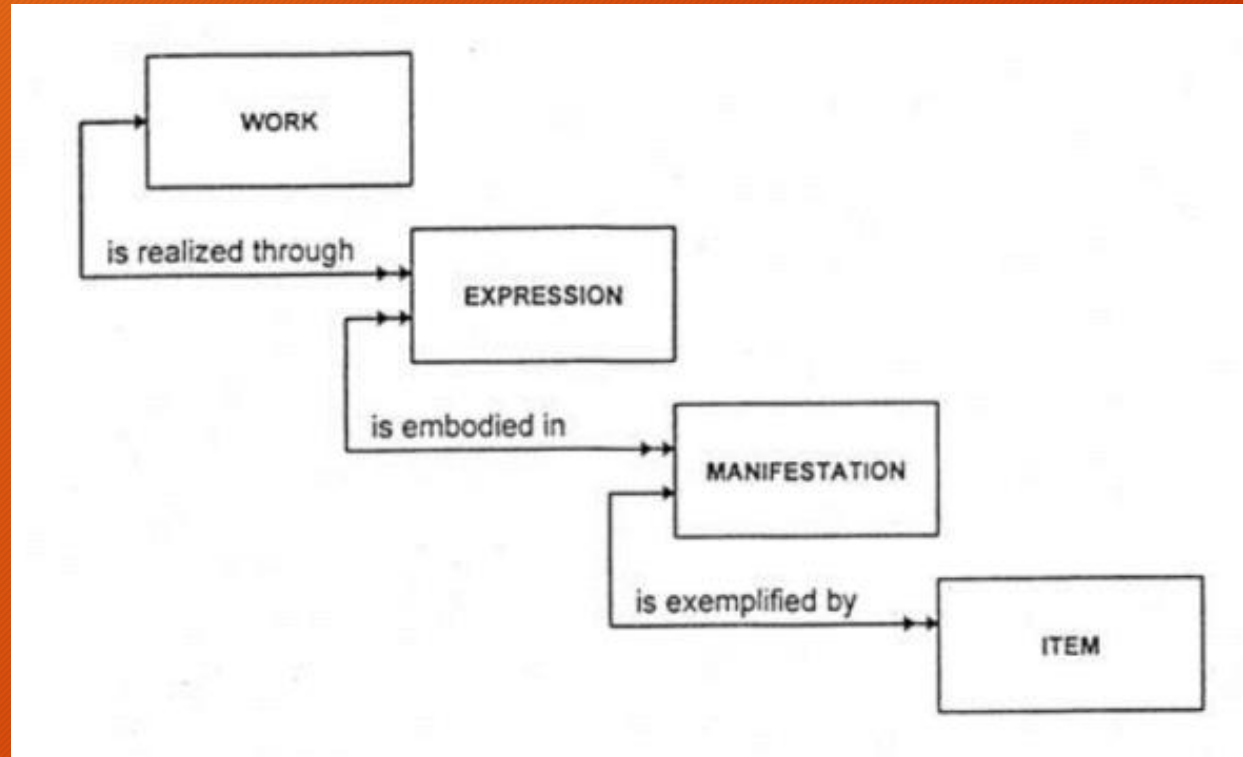
openWEMI

kcoyle@kcoyle.net

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Work, Expression, Manifestation, Item



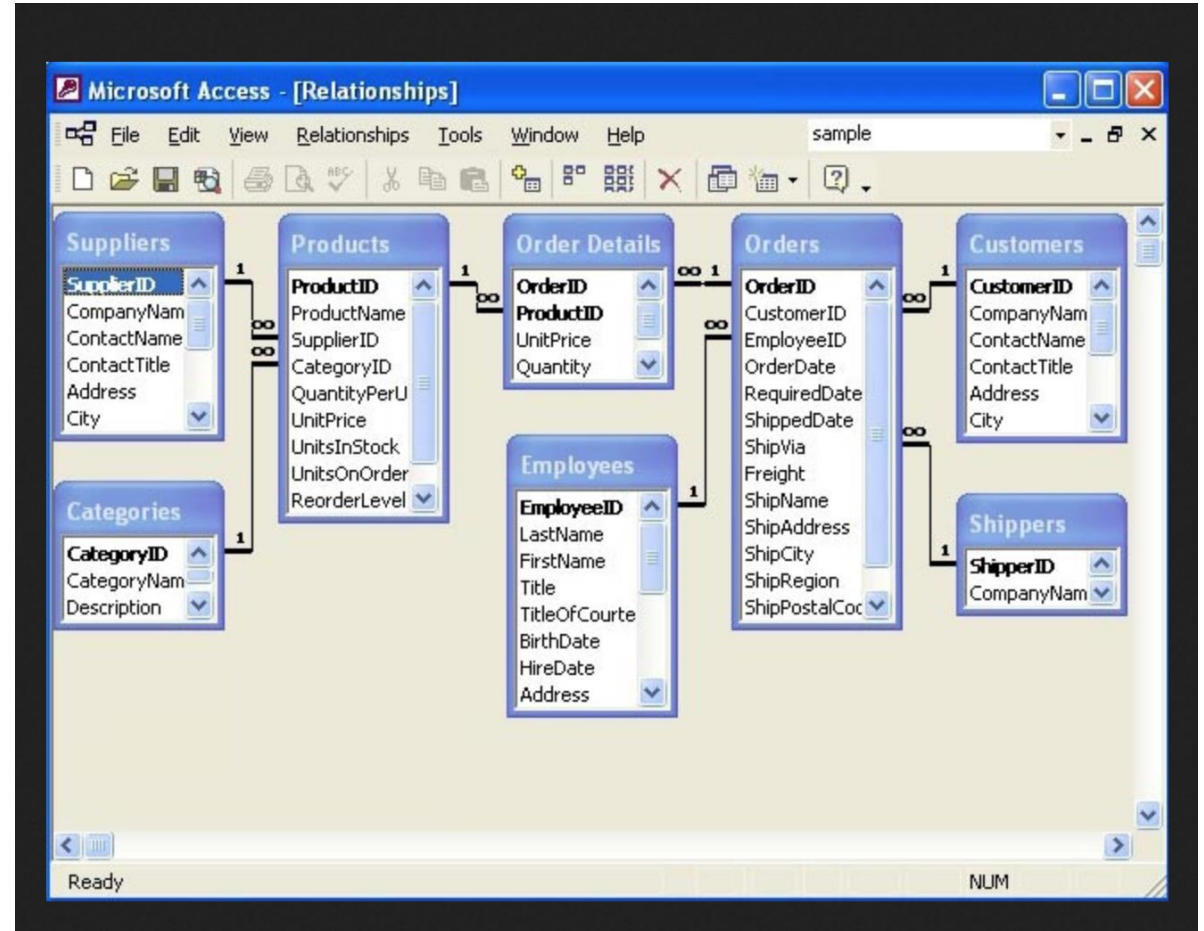
FRBR/LRM 2 primary influences, both from the 1990's

Relational
database
design

Object-
oriented
data design

Relational Database Design

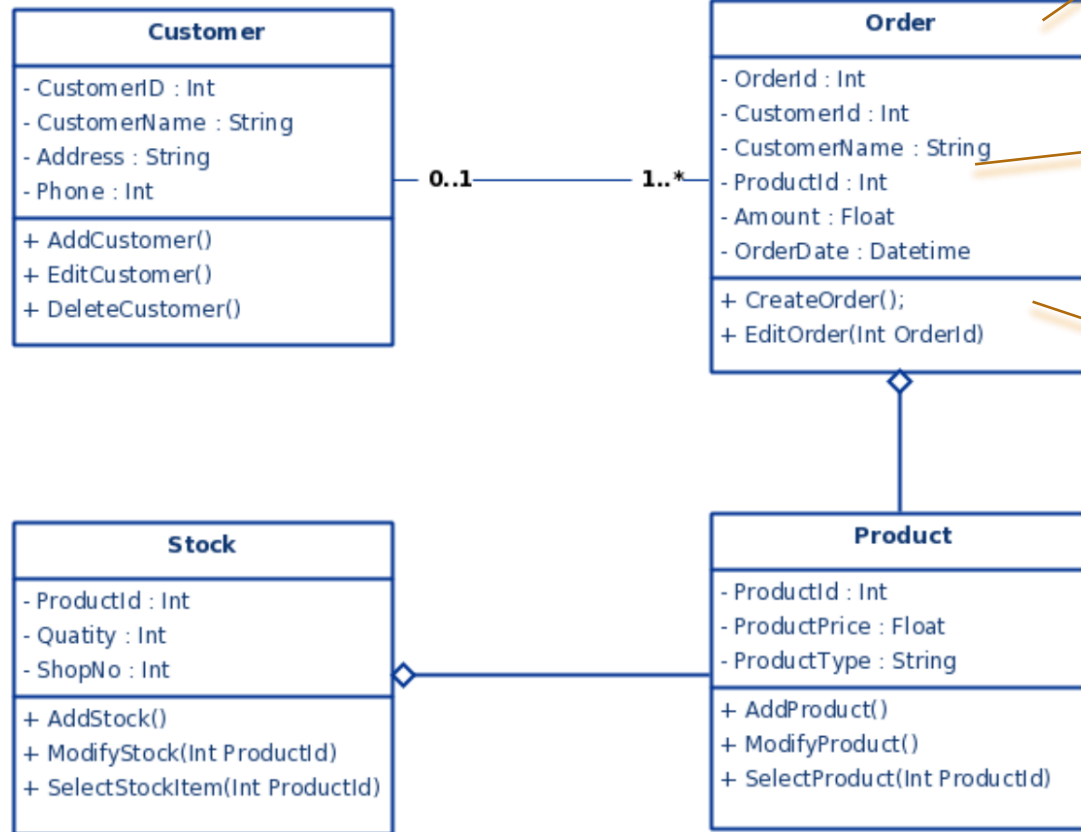
Boxes here are called "tables"



Object-oriented design

(called a "class")

Class Diagram for Order Processing System

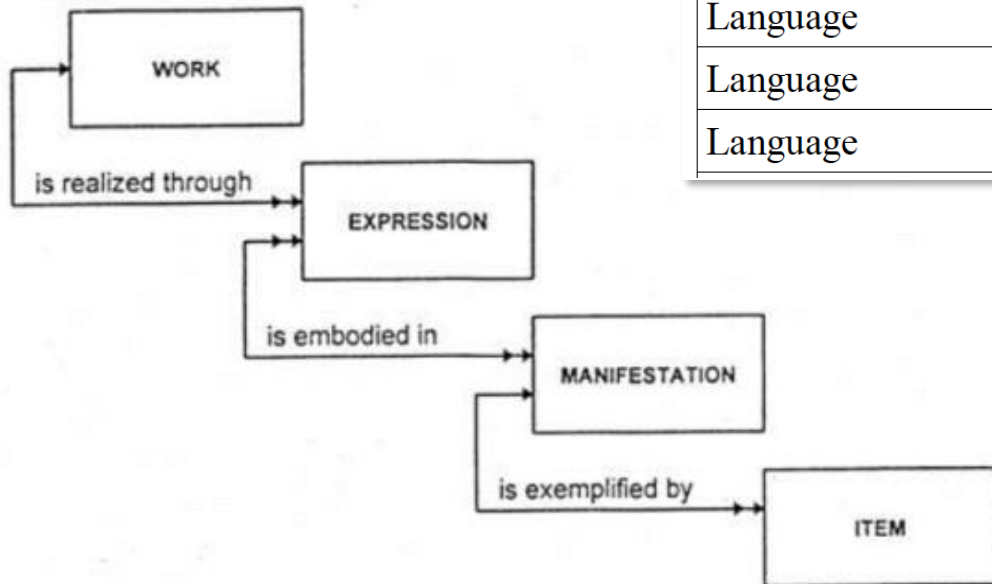


the object

the data elements

the methods

WEMI, a *precise* model for library catalogs



Language	LRM-E3-A6	LRM-E3	Expression
Language	LRM-E6-A3	LRM-E6	Agent
Language	LRM-E9-A7	LRM-E9	Nomen

Upside and downside of RDBS and O-O

Up

- Precise
- Complete
- Control of data creation

Down

- Inflexible
- Requires completeness
- Not easily extended
- Can only exchange with same
- Defines a structure
- Designed for a single application

The openWEMI idea

WEMI has been discovered outside of libraries

...

... and those folks have different metadata needs

Sample of non-traditional uses of WEMI concepts

FaBiO - FRBR-aligned Bibliographic Ontology

Akoma-Ntoso - Use of FRBR entities to describe legal document versions

FRIR - Functional Requirements of Information Resources

The Music Ontology

Colon classification

Fast Fashion Ontology

FaBiO - FRBR
Aligned
Bibliographic
Ontology

FRBR Work

The intellectual or
artistic content of a
distinct creation

subclass of

FaBiO Work

...restricted to works that are
published or potentially
publishable, and that contain
or are referred to by
bibliographic references, ...

subclass of

essay

subclass of

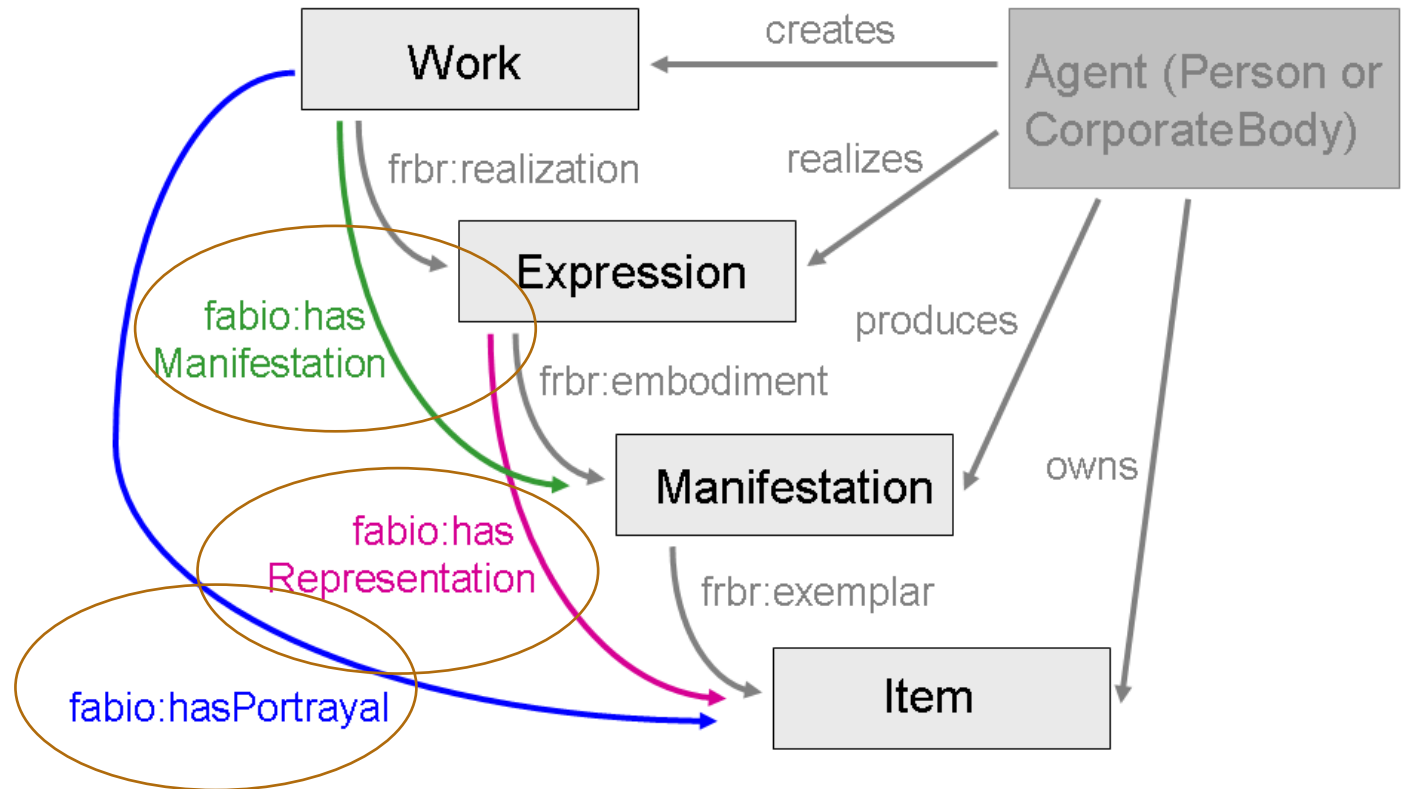
report

subclass of

Scholarly work

FaBiO - FRBR Aligned Bibliographic Ontology

New Work-Expression-Manifestation-Item relationships in FaBiO



Reciprocals: `frbr:realizationOf` `frbr:embodimentOf` `frbr:exemplarOf`
`fabio:isManifestationOf` `fabio:isRepresentationOf` `fabio:isPortrayalOf`

The Music Ontology

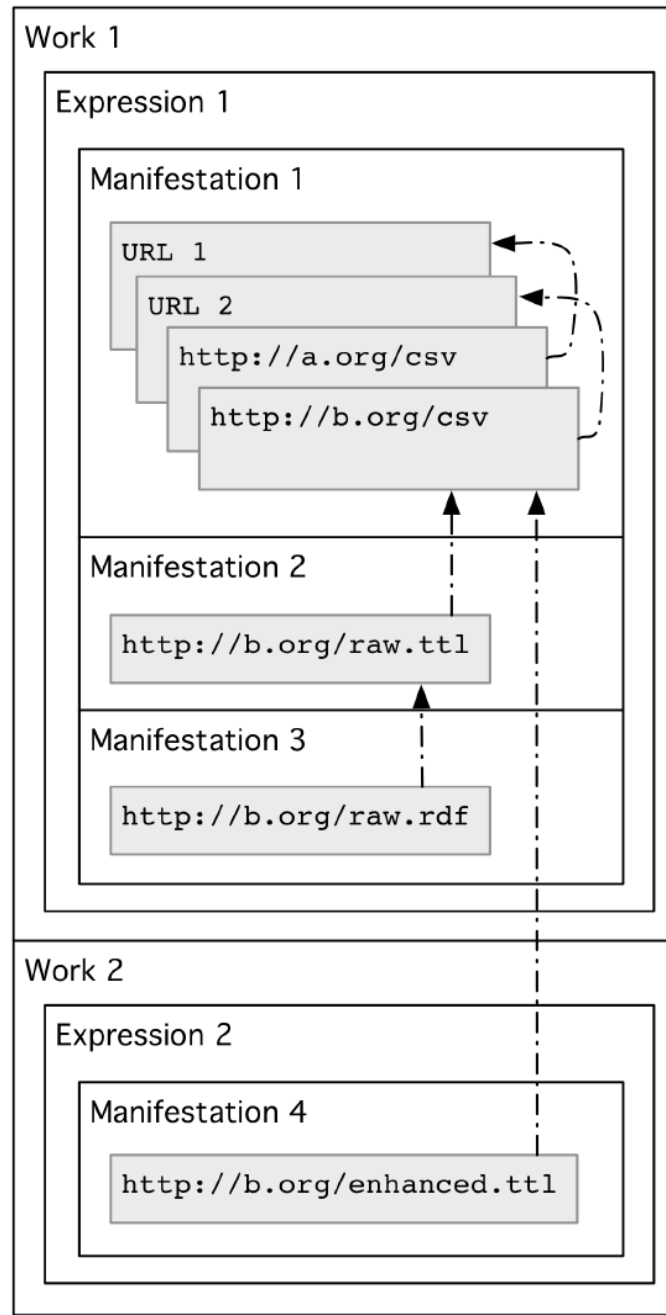
URI:	http://purl.org/ontology/mo/MusicalWork
Label:	musical work
Status:	stable
Subclasses:	Movement
Parent Class:	http://purl.org/vocab/frbr/core#Work
Properties:	arranged_in , composed_in , iswc , movement , opus , lyrics

Akoma-Ntoso -
an XML schema
for legal
documentation

```
<xsd:sequence>  
  <xsd:element ref="FRBRWork"/>  
  <xsd:element ref="FRBRExpression"/>  
  <xsd:element ref="FRBRManifestation"/>  
  <xsd:element ref="FRBRItem" minOccurs="0" maxOccurs="1"/>  
</xsd:sequence>
```

```
<xsd:sequence>  
  <xsd:element ref="FRBRthis"/>  
  <xsd:element ref="FRBRuri" minOccurs="1" maxOccurs="unbounded"/>  
  <xsd:element ref="FRBRalias" minOccurs="0" maxOccurs="unbounded"/>  
  <xsd:element ref="FRBRdate" minOccurs="1" maxOccurs="unbounded"/>  
  <xsd:element ref="FRBRauthor" minOccurs="1" maxOccurs="unbounded"/>  
  <xsd:element ref="componentInfo" minOccurs="0" maxOccurs="1"/>  
  <xsd:element ref="preservation" minOccurs="0" maxOccurs="1"/>  
</xsd:sequence>
```


Functional Requirements of Information Resources



← was derived from

Ranganathan's
Colon
Classification
—
Book numbers

FRBR

- Work
- Expression
- Manifestation
- Item

CC

- Classification number
- Language, Form
- Year of publication, volume, supplement (parts)
- Copy number

Fast Fashion Ontology

- FRBR

- Work

- Expression

- Manifestation

- Item

- FFO

- style (design)

- item (production plan)

- stock-keeping unit (manufactured run)

- piece

what if we could "free" WEMI for these and other uses?

(we can)



WEMI as concepts, not structures

Work

Expression

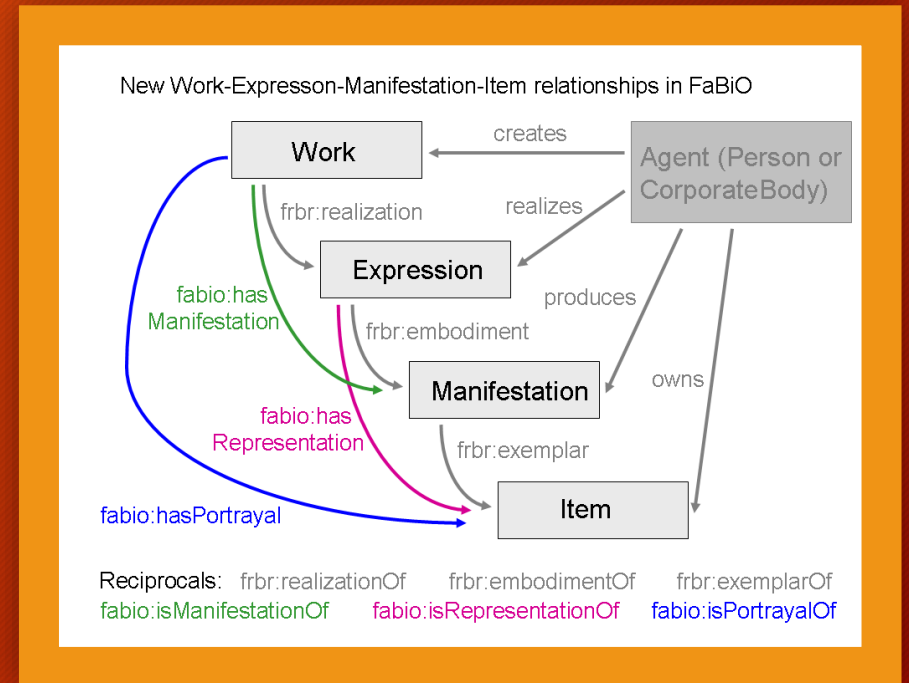
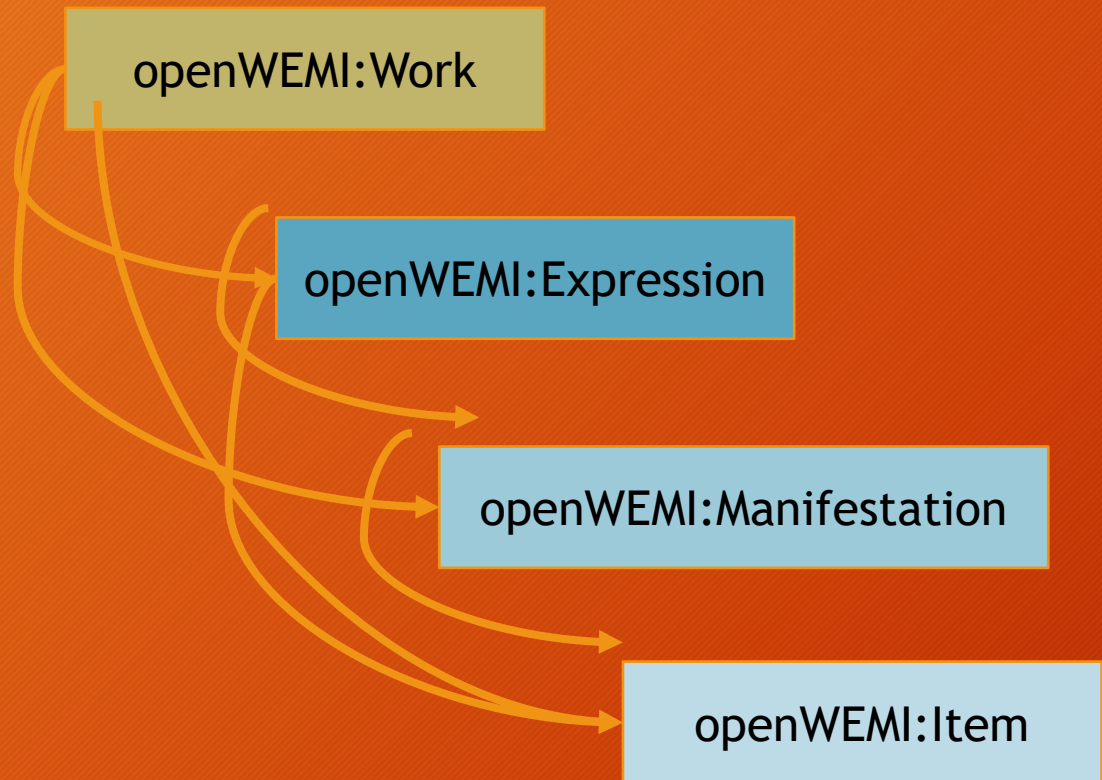
Manifestation

Item

we still have the general work and the specific item, and in between



relationships



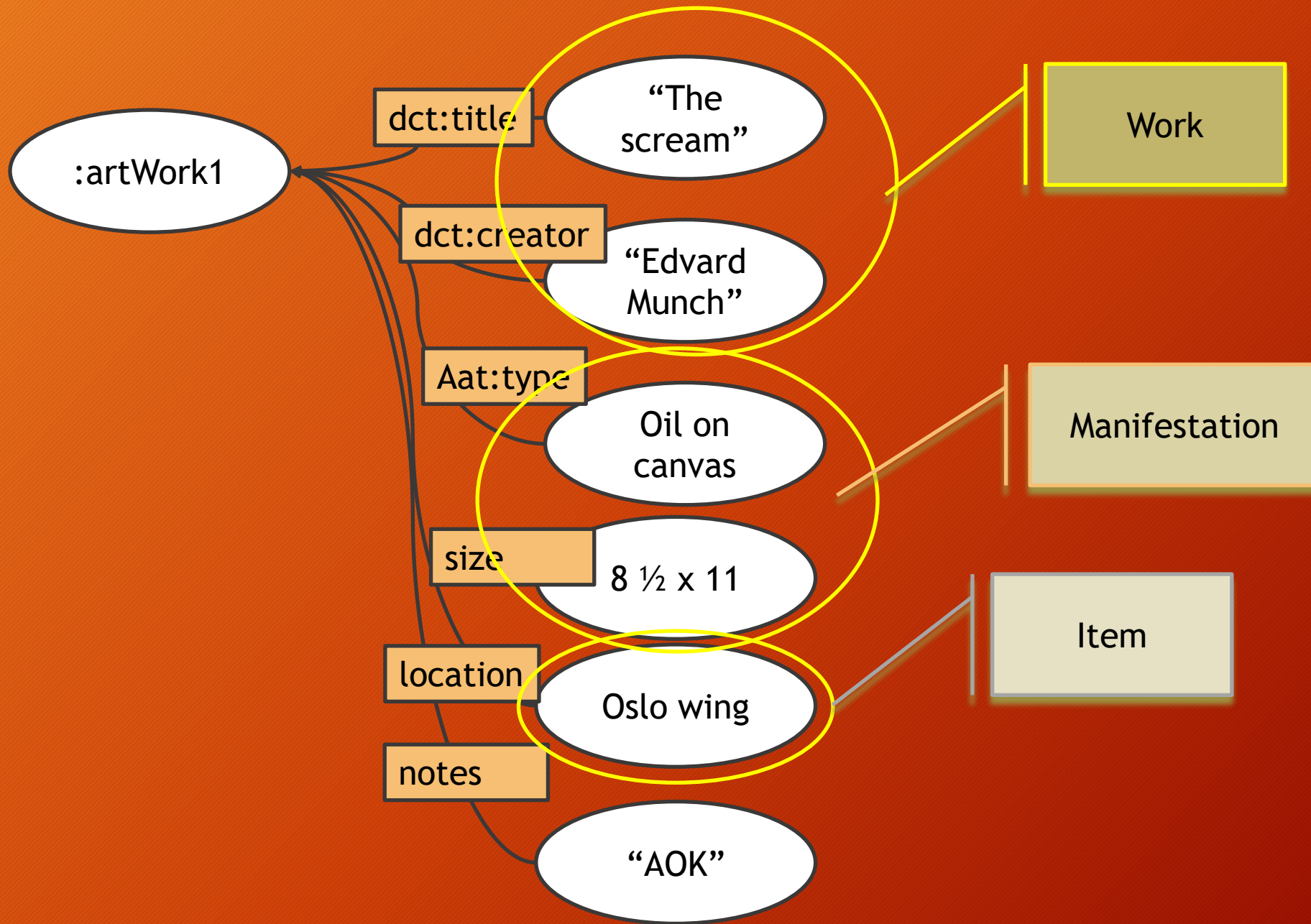
The openWEMI proposal

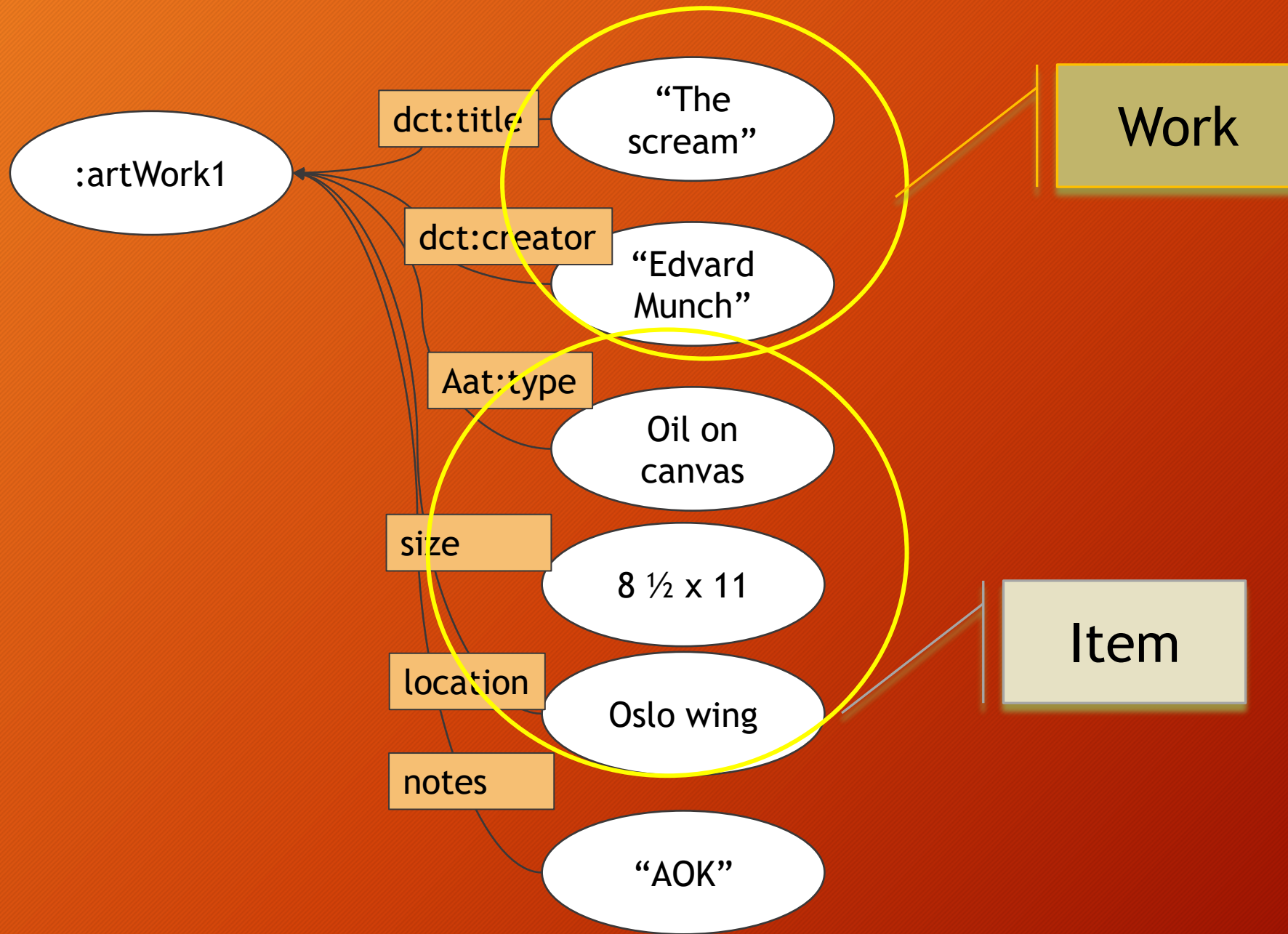
Classes

- Work
- Expression
- Manifestation
- Item

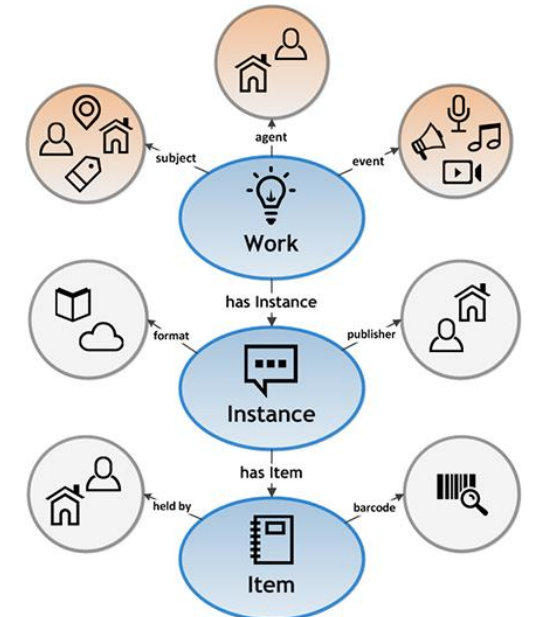
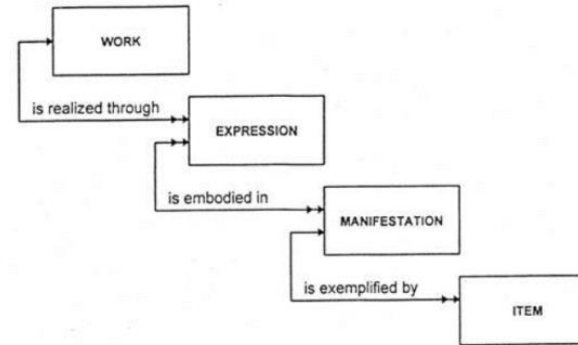
Relationships

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

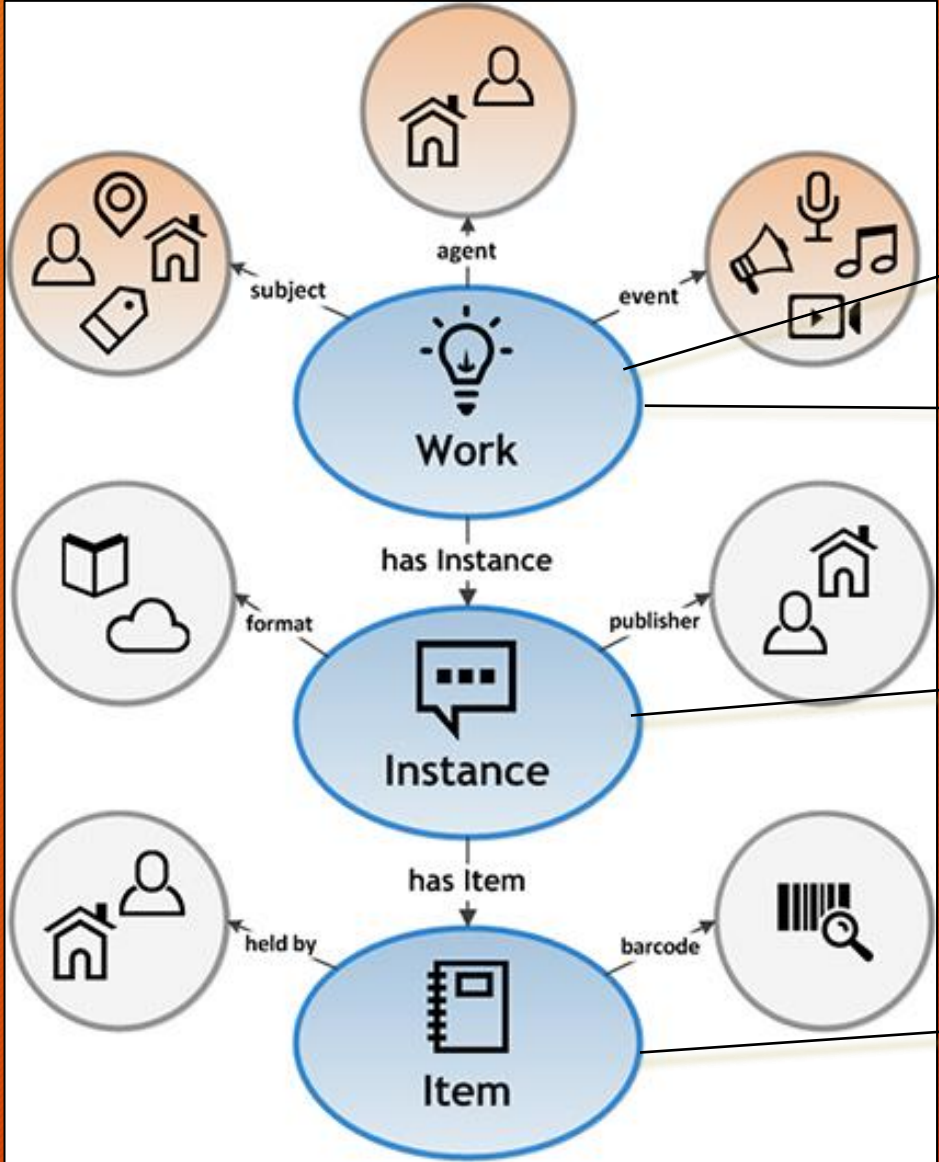




One goal: remove conflicts between different interpretations



B
I
B
R
A
R
I
A
N
S



Work

Expression

Manifestation

Item

Now a Dublin Core Working Group

Work is being done on github:

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

Join the mailing list (low traffic) to keep up to date:

<https://lists.dublincore.org/mailman/listinfo/openwemi>

Thank you and links

<https://github.com/dcmi/openwemi/bibliography.md>