

# The Dublin Core Application Profile for Scholarly Works (ePrints)

**Metadata issues for Scottish institutional repositories**

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# Overview

- Background, scope and functional requirements
- Model, application profile and vocabularies
- Next steps ...



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# Background and scope

- Overall aim
  - to offer a solution to metadata issues identified in Eprints UK project, and others (e.g. PerX project)
  - to provide a richer metadata profile for the Intute repository search project, and others?
- Scope
  - DC elements plus any additional elements necessary
  - Identifiers for the eprint and full-text(s); related resources
  - Hospitable to the use of a variety of subject access solutions
  - Additional properties to fulfil search/browse requirements
  - Bibliographic citations and references citing other works



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# Deliverables

- Functional Requirements Specification
- Entity-Relationship Model
- Application Profile with Cataloguing/Usage Guidelines
- Plan for Community Acceptance and Take-up



# Requirements summary

- richer metadata set - consistent metadata
- support for added-value services
- unambiguous method of identifying full-text(s)
- consider version identification and most appropriate copy of a version
- open access materials
- support browse based on controlled vocabularies
- OpenURL link servers
- support citation analysis (in line with dc-citation WG recommendations)
- identification of the research funder and project code
- identification of the repository or other service making available the copy
- date available
- date of modification of a copy, to locate the latest version

**the requirements demanded a more complex model ...**



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# Model : what's that?

- The model says what things are being described
  - the set of **entities** that we want to describe
  - and the key **relationships** between those entities
- FRBR (Functional Requirements for Bibliographic Records) provides the basis for our model
  - a model for the entities that ***bibliographic records*** are intended to describe
  - but we've applied it's model to ***scholarly works***
  - and it could be applied to other ***resource types***

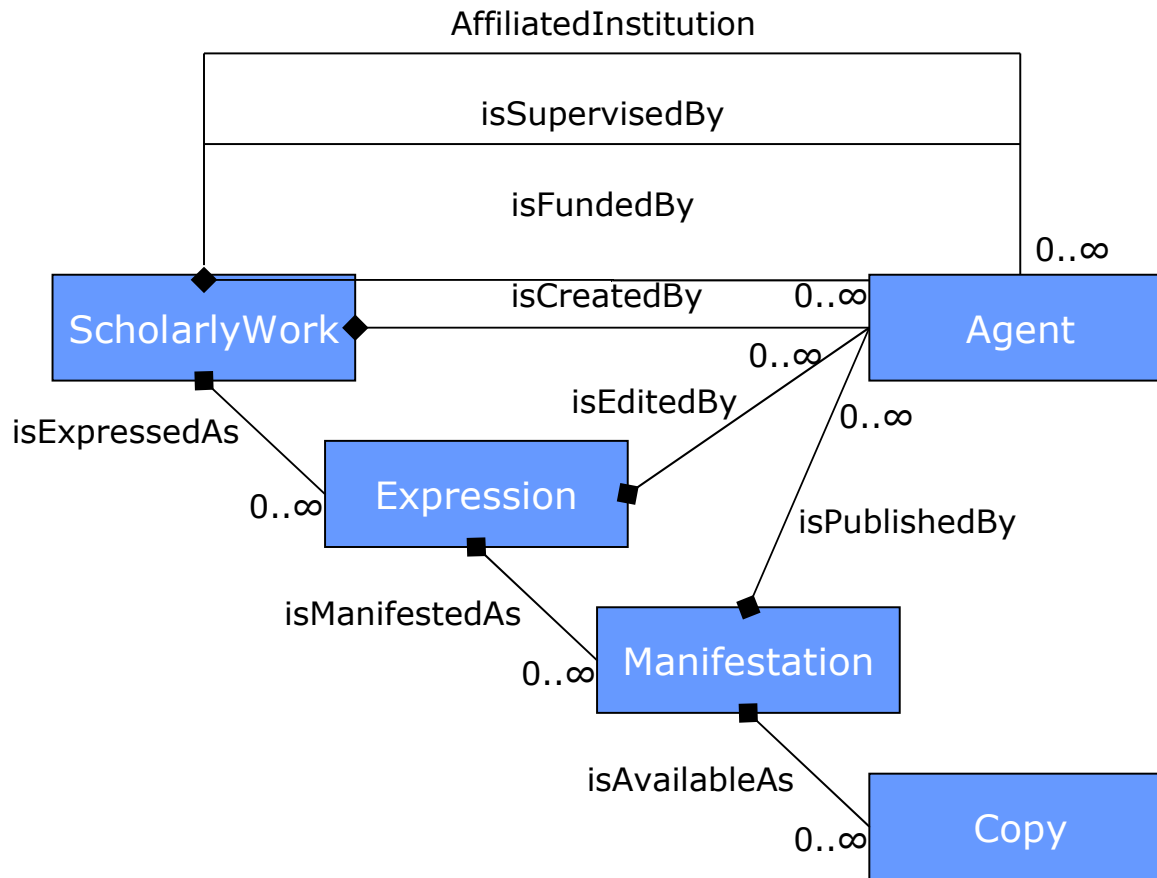


# FRBR?

- FRBR models the world using 4 key entities: Work, Expression, Manifestation and Item
  - A **work** is a distinct intellectual or artistic creation. A work is an abstract entity
  - An **expression** is the intellectual or artistic realization of a work
  - A **manifestation** is the physical embodiment of an expression of a work.
  - An **item** is a single exemplar of a manifestation. The entity defined as item is a concrete entity.
- FRBR also defines additional entities - 'Person', 'Corporate body', 'Concept', 'Object', 'Event' and 'Place'
- And the relationships between entities

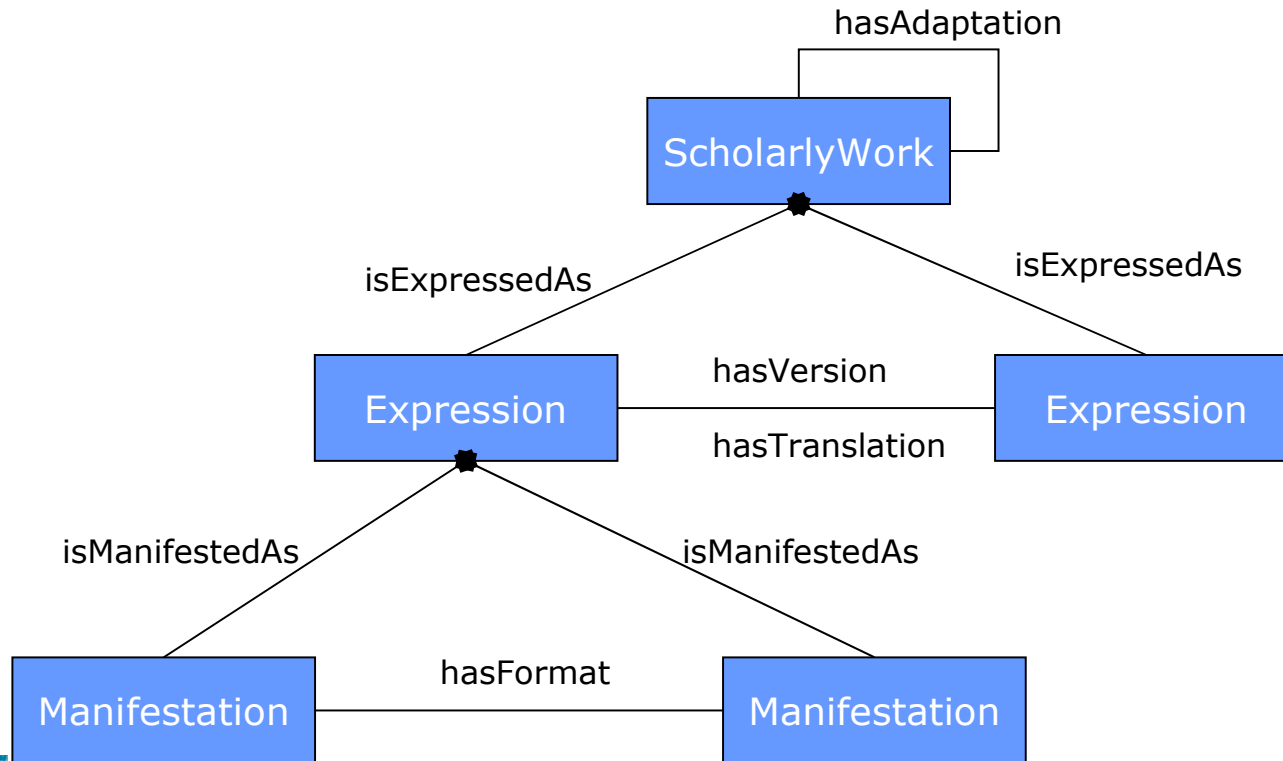


# The model





# Vertical vs. horizontal relationships

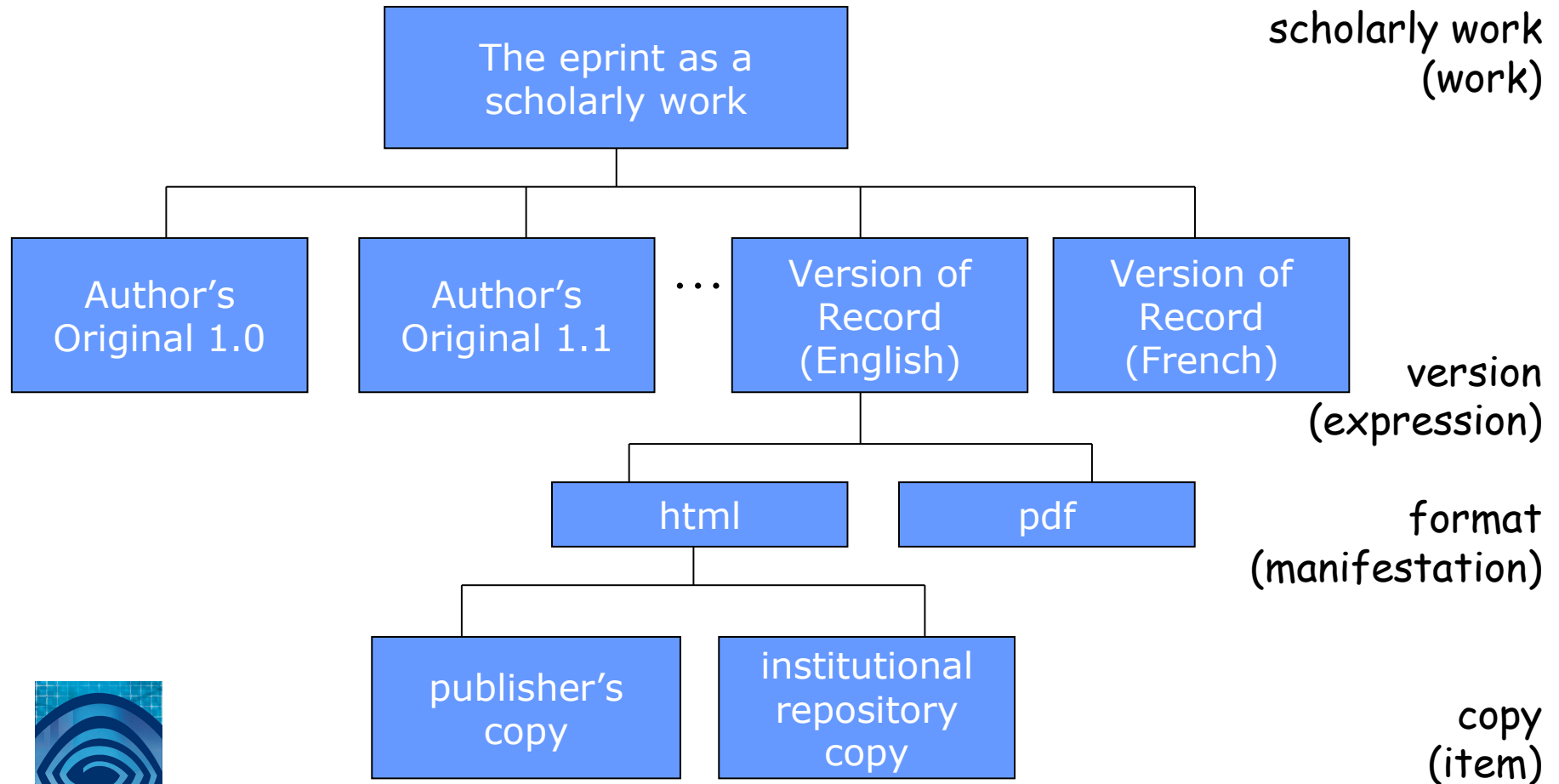


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# FRBR for eprints



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# Capturing this in Dublin Core

- The DCMI Abstract Model (DCAM) says what the descriptions look like
- it provides the notion of ‘description sets’
- i.e. groups of related ‘descriptions’
- where each ‘description’ is about an instance of one of the entities in the model
- relationships and attributes are captured as metadata properties in the application profile



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# From model to profile

- the model defines the entities and relationships
- each entity and its relationships are described using an agreed set of attributes / properties
- the application profile describes these properties
  - contains recommendations, cataloguing/usage guidelines and examples
  - little is mandatory, prescriptive statements are limited
  - structured according to the entities in the model



# The application profile

- simple DC properties (the usual suspects ... )
  - identifier, title, abstract, subject, creator, publisher, type, language, format
- qualified DC properties
  - access rights, licence, date available, bibliographic citation, references, date modified
- new properties
  - grant number, affiliated institution, status, version, copyright holder
- properties from other schemes
  - funder, supervisor, editor (MARC relators)
  - name, family name, given name, workplace homepage, mailbox, homepage (FOAF)
- clearer use of existing relationships
  - has version, is part of
- new relationship properties
  - has adaptation, has translation, is expressed as, is manifested as, is available as
- vocabularies
  - access rights, entity type, resource type and status



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# Example properties

## ScholarlyWork:

title  
subject  
abstract  
affiliated institution  
identifier

## Expression:

title  
date available  
status  
version number  
language  
genre / type  
copyright holder  
bibliographic citation  
identifier

## Manifestation:

format  
date modified

## Agent:

name  
type of agent  
date of birth  
mailbox  
homepage  
identifier

## Copy:

date available  
access rights  
licence  
identifier



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# Thoughts on the approach ...

- this approach is guided by the functional requirements identified and the primary use case of richer, more functional, metadata
- it also makes it easier to rationalise ‘traditional’ and ‘modern’ citations
  - traditional citations tend to be made between eprint ‘expressions’
  - hypertext links tend to be made between eprint ‘copies’ (or ‘items’ in FRBR terms)
- a complex underlying model may be manifest in relatively simple metadata and/or end-user interfaces
- existing eprint systems may well capture this level of detail currently – but use of simple DC stops them exposing it to others!



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# OAI-PMH

- Dumb-down
  - we still need to be able to create simple DC descriptions
  - we have chosen to dumb-down to separate simple DC descriptions of the ScholarlyWork and each Copy
    - simple DC about the ScholarlyWork corresponds to previous guidance
    - simple DC about each Copy useful for getting to full-text, e.g. by Google
- XML schema
  - [http://www.ukoln.ac.uk/repositories/digirep/index/Eprints\\_DC\\_XML](http://www.ukoln.ac.uk/repositories/digirep/index/Eprints_DC_XML)
  - almost finished



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# Next steps ...

- Community acceptance plan outlines further work towards community take-up
  - deployment by developers
  - deployment by repositories, services
  - dissemination
  - possible establishment of a DC task group
- More application profiles
  - JISC is funding work on profiles for images, time-based media and geographic data
  - this approach may prove a good foundation



# Thanks ...

[www.ukoln.ac.uk/repositories/  
digirep/index/Eprints\\_Application\\_Profile](http://www.ukoln.ac.uk/repositories/digirep/index/Eprints_Application_Profile)

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