The Dublin Core Application Profile for Scholarly Works (www.ukoln.ac.uk /repositories/)

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Functional requirements (selection)

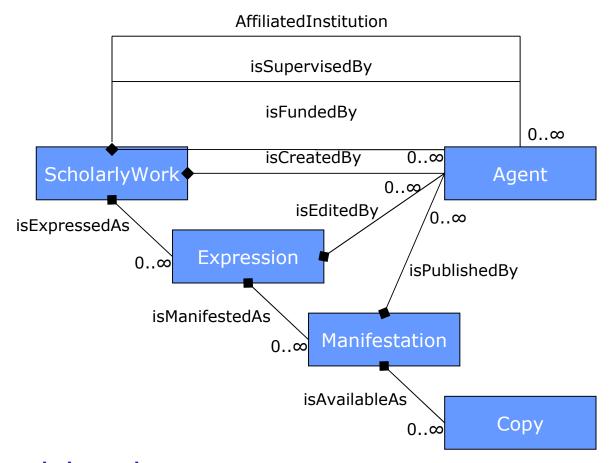
- richer metadata set consistent metadata
- support for added-value services
- unambiguous method of identifying full-text(s)
- consider version identification and most appropriate copy of a version
- open access materials
- support browse based on controlled vocabularies
- OpenURL link servers
- support 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

Entity-Relationship Model

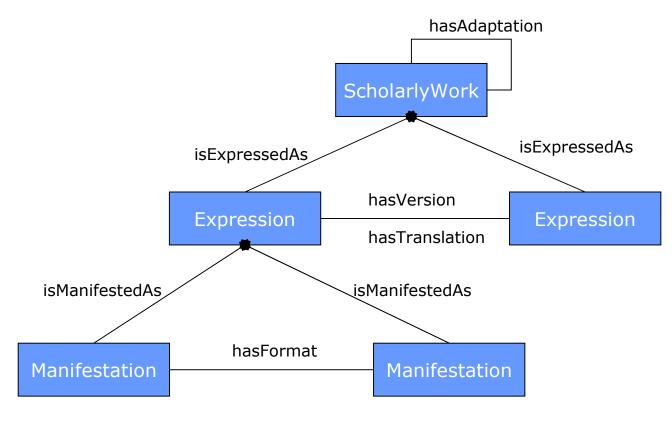
- The model says what things are being described
 - the set of entities that we want to describe
 - and the key relationships between those entities
- FRBR (Functional Requirements for Bibliographic Records) provides the basis for our model
 - a model for the entities that bibliographic records are intended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



The application model



Vertical vs. horizontal relationships





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

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



Example properties

ScholarlyWork:

title subject abstract affiliated institu date available identifier

Expression:

title status

version number language genre / type copyright holder

bibliographic citation identifier

Agent:

name type of agent date of birth mailbox homepage identifier

Manifestation:

format date modified

Copy:

date available access rights licence identifier



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Interoperability

- Dumb-down
 - we still need to be able to create simple DC descriptions for OAI-PMH
 - 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



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 repositories or information systems may well capture this level
 of detail currently but use of simple DC stops them exposing it to
 others!

