

International Conference on Dublin Core and Metadata Applications

Scholarly Works Application
Profile : reviewed

Wednesday 24th September 2008



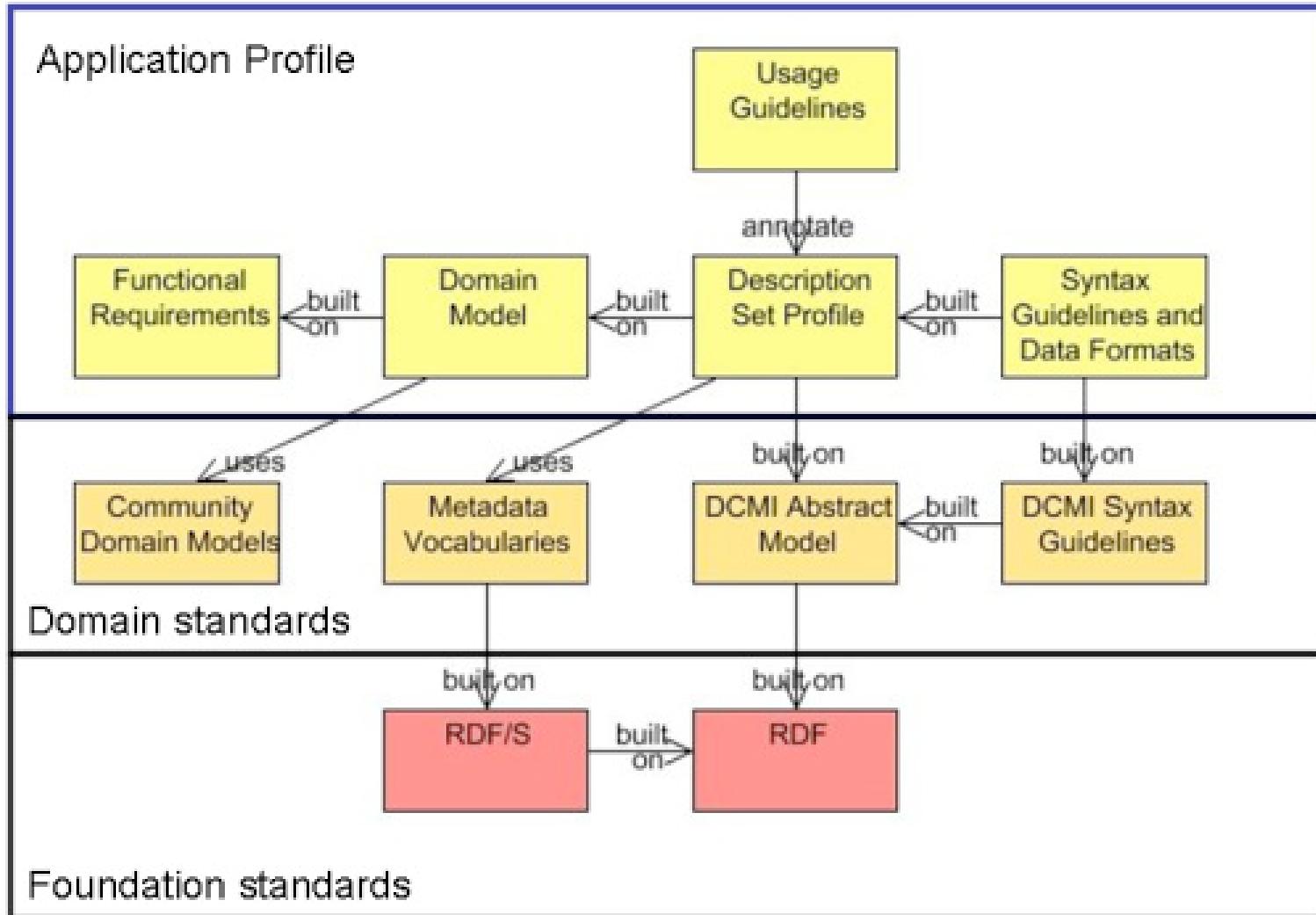
Julie Allinson

● Scholarly Works Application Profile

- SWAP : a Dublin Core Application Profile (DCAP) for describing scholarly works (eprints) held in institutional repositories
- By 'eprints' or 'scholarly works', we mean
 - "scientific or scholarly research text" (as defined by the Budapest Open Access Initiative <http://www.earlham.edu/~peters/fos/boaifaq.htm#literature>)
 - including peer-reviewed journal articles, preprints, working papers, theses (just), book chapters, reports, etc.



Application profiles according to Dublin Core



● Usage Board Review Criteria

- Objectives and scope
- Functional requirements
- Domain model
- Description set profile : description templates
- Description set profile : metadata terms used
- Syntax encoding guidelines / format [OPTIONAL]
 - Not reviewed as SWAP epdcx format will be deprecated for the new Dublin core XML encoding guidelines shortly



● Functional requirements

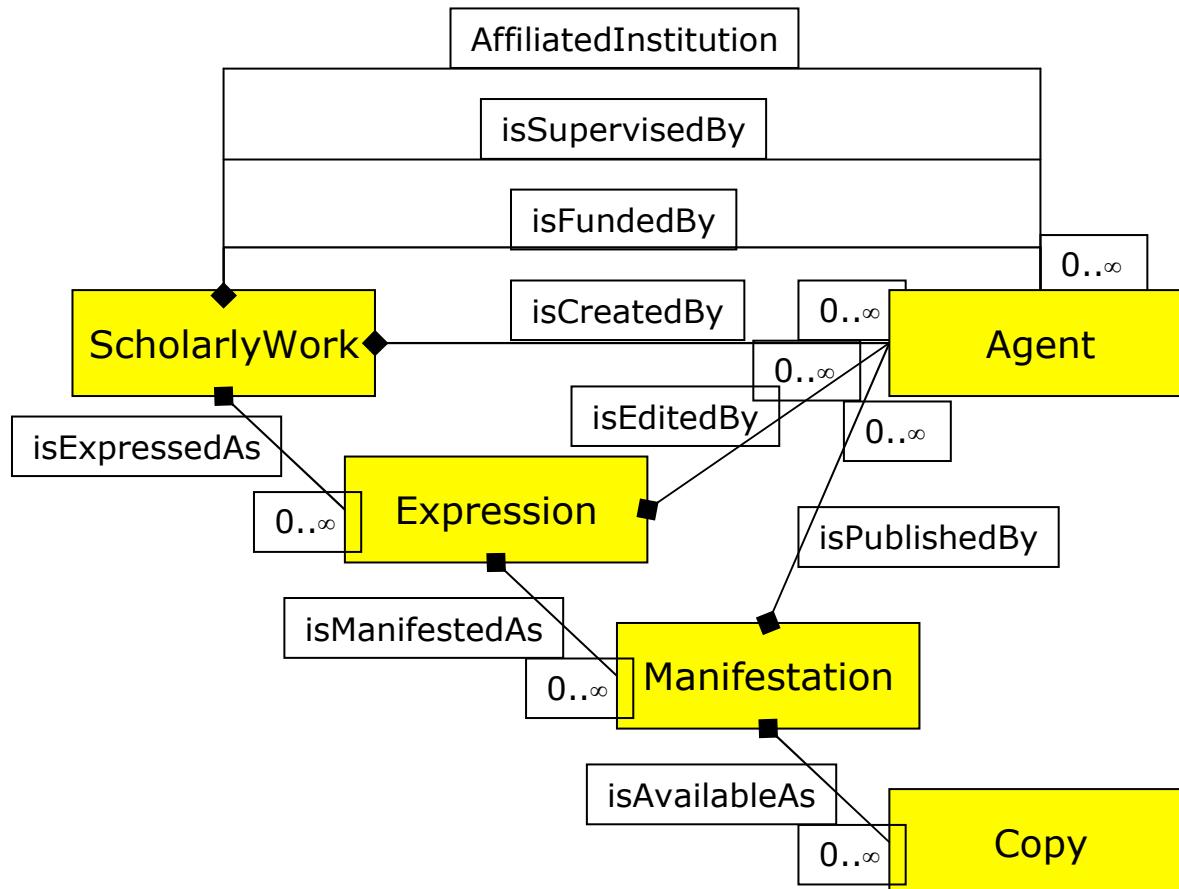
- Objective/Scope: Scholarly Works, for discovery ...
- a richer metadata set – more properties, fit-for-purpose
- consistent, good quality metadata – less ambiguity and divergence
- unambiguous method of identifying full-text(s)
- distinguish open access materials from restricted
- support OpenURL link servers and support citation analysis
- identify the research funder and project code
- identify the repository or other service making available the copy
- say when a copy of a scholarly work will be made available
- better search and browse options
- some suggestions towards version identification
- Identifying duplicates and finding the most appropriate copy of a version
- support for added-value services

● Domain model

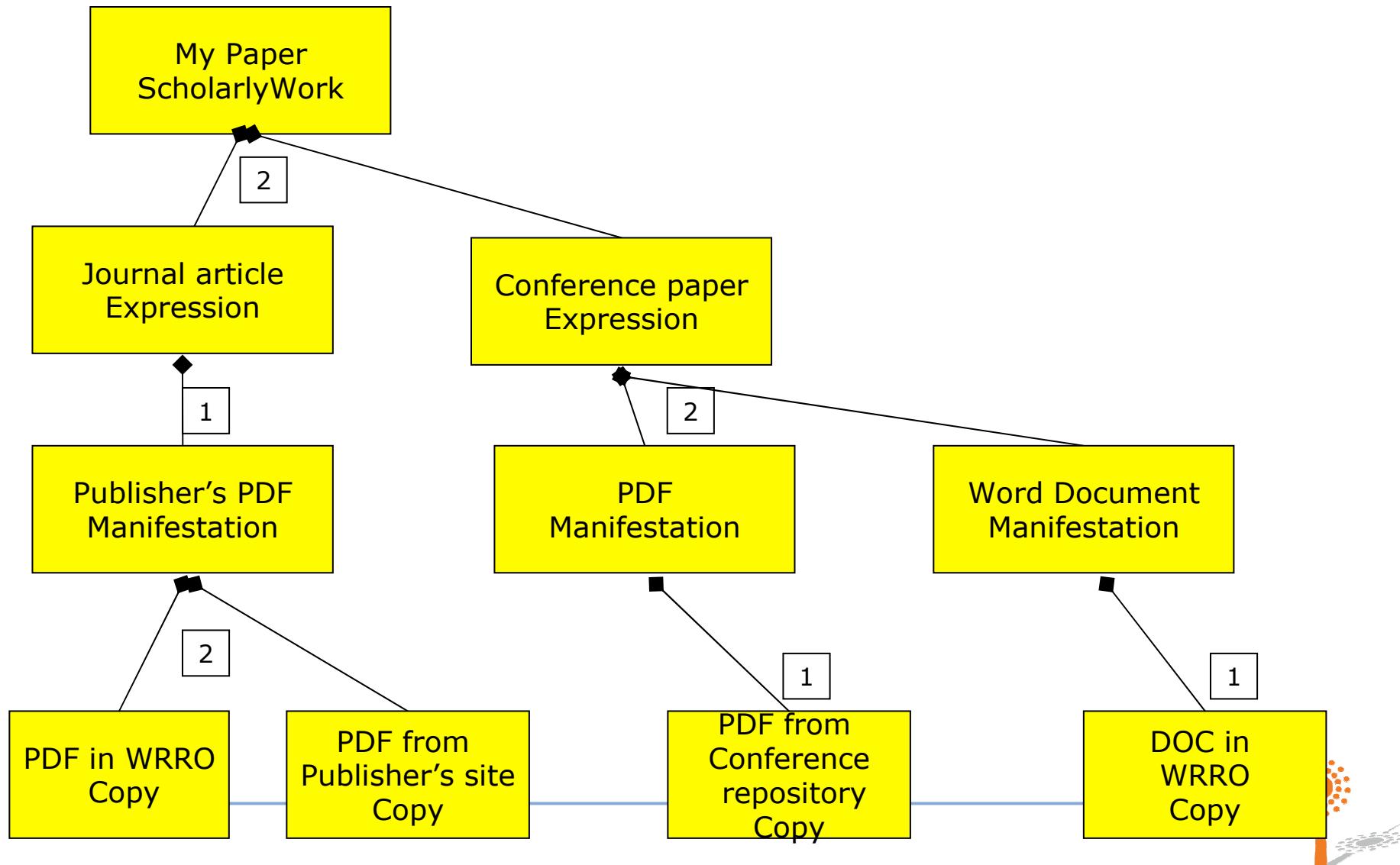
- A *Domain model* (also known as a data, application or entity-relationship model) to define the entities we need to describe, the relationships between them and the properties needed
 - domain models are not tied to any specific **metadata vocabulary**
- SWAP's is based on FRBR
- It defines entities and relationships (and attributes)
- these appear as metadata properties in the description set profile
- Because it is based on the Dublin Core Abstract Model we can group together *descriptions* of the different entities in our model into a *description set* for sharing as a metadata *record*



● The model in pictures



Example, in pictures



● Description set profile

- This defines our metadata properties, identifies which ***metadata vocabularies*** they are from and constrains how they are used
 - ... description set profiles are relatively new in Dublin Core and can be machine-readable (there is an XML format)
- Additionally ***usage guidelines*** annotate the ***description set profile*** with human-readable guidance and examples
- The DSP says things like
 - This property can only appear once
 - This property can use the following Vocabulary Encoding Scheme
 - This property is a literal (a string)
 - This property can offer a link to a further description

● And so to SWAP

- SWAP passed the review with some minor corrections
- That's great ...
- but what does this really mean for implementation?
- or for other application profile developers?
- or for the DC-Scholar Community?

Discuss ...



International Conference on Dublin Core and Metadata Applications

Scholarly Communications Community
Workshop

Wednesday 24th September 2008



Hosted by:

Julie Allinson; Rosemary Russell

● DC-Scholar : Welcome

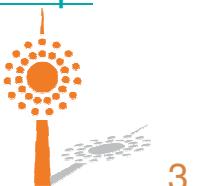
Dublin Core Scholarly Communications Community

<http://www.dublincore.org/groups/scholar/>

- “the aim of the group is to provide a central place for individuals and organisations to exchange information, knowledge and general discussion on issues relating using Dublin Core for describing items of 'scholarly communications', be they research papers, conference presentations, images, data objects“
- Established 1st October 2007
- Moderated by ...
 - Rosemary Russell, UKOLN, University of Bath
 - Julie Allinson, University of York [until 30/9/2008]
- 198 members @ 24rd September 2008

● What's around DC-Scholar?

- Dublin Core
 - The Singapore Framework for Application Profiles
- Implementers of repositories, digital libraries and other metadata-rich systems
 - A wide range ... images, scholarly papers, research data, theses ... anything that we might want to describe across scholarly communications
- Application Profiles
 - SWAP (Scholarly Works Application Profile), UK
<http://www.ukoln.ac.uk/repositories/digirep/index/SWAP>
 - Images Application Profile, UK
http://www.ukoln.ac.uk/repositories/digirep/index/Images_Application_Profile
 - Time-based media application profile, UK
http://wiki.manchester.ac.uk/tbmap/index.php/Main_Page
 - Geospatial Application Profile
http://www.ukoln.ac.uk/repositories/digirep/index/Geospatial_Application_Profile
 - Learning Materials Application Profile **scoping study**
<http://www.icbl.hw.ac.uk/lmap/>
 - More ... ?



● DC-Scholar

- Programme
 - SWAP and the review of SWAP by the Dublin Core Usage Board – Julie
 - Other application profiles in the UK – Rosemary
 - FRBR/RDA Review Group – Gordon Dunsire
 - Open session ...

● DC-Scholar

- Is there value in keeping DC-Scholar going?
 - 198 members, 3 discussions since October 2007
- Are there any proposed task groups?
 - Minor corrections to SWAP will be taken forward anyway
- Should the DC-Scholar Community take a more proactive role in the promotion and review of related application profiles?
 - SWAP: Are there revisions to be made? Are there any SWAP users in the audience? Should SWAP move to a Dublin Core ‘home’
 - Other UK initiatives – application profiles
 - Other metadata profile work?
- How does this community fit with other communities and groups?
 - DC-Libraries
 - DCMI/RDA Task Group
 - Others



University of
Strathclyde

FRBR and SWAP: recent developments and implications

Gordon Dunsire
Presented at the DCMI Scholarly
Communications Community meeting, DC-
2008,
24 Sep 2008, Berlin





SWAP and FRBR

- ❖ DC Scholarly Works Application Profile (SWAP)
 - ❖ Model based on Functional Requirements for Bibliographic Records (FRBR)
 - ❖ Metadata model developed by the International Federation of Library Associations and Institutions (IFLA)
 - ❖ Modifies some FRBR entity and relationship labels
 - ❖ FRBR “Work” =? SWAP “ScholarlyWork”
 - ❖ FRBR “Item” = SWAP “Copy”
 - ❖ FRBR “isEmbodiedIn” = SWAP “isManifestedAs”
 - ❖ Etc.



FRBR developments

- ❖ FRBR Review Group, August 2007, WLIC (IFLA), Durban, South Africa
- ❖ Project: To define appropriate namespaces for FRBR (entity-relationship) in RDF and other appropriate syntaxes
- ❖ Status: Report and recommendations discussed at WLIC, 2008, Québec City, Canada
 - ❖ In principle: FRBR attributes and properties to be declared in RDFS under an IFLA domain
 - ❖ IFLA governing body likely to make policy decision at end 2009
 - ❖ Other IFLA standards (FRAD, ISBD, UNIMARC, etc.) interested in same approach
 - ❖ SKOS versions in NSDL Metadata Registry Sandbox



Implications for SWAP (1)

- ❖ FRBR attributes and properties will have URIs in IFLA namespace
 - ❖ Replace SWAP namespace URIs?
 - ❖ Develop OWL:sameAs links?
- ❖ OWL:sameAs property may not be valid for FRBR:Work <> SWAP:ScholarlyWork
 - ❖ "... it is difficult to define precise boundaries for the entity ... viewed differently from one culture to another." (FRBR)



Implications for SWAP (2)

- ❖ SWAP does not include “horizontal” FRBR relationships/properties
 - ❖ E.g. hasASummary; hasARevision
 - ❖ Required for linking content and carrier variations of eprints and other scholarly works
 - ❖ Issue not confined to aggregator services
- ❖ SWAP does not use reciprocals of “vertical” FRBR properties
 - ❖ E.g. no SWAP:isEmbodimentOf
 - ❖ Required for effective dis-aggregation of records into components (SWork, Expression, Manifestation, Copy)
 - ❖ Required for efficient metadata re-usability between services, communities, domains

SWAP and RDA

- ❖ Resource Description and Access (RDA)
 - ❖ Metadata content standard also based on FRBR
 - ❖ DCMI RDA Task Group declaring RDA attributes and value vocabularies in RSFS and SKOS
 - ❖ See presentation to Workshop 6
- ❖ RDA content and carrier value vocabularies
 - ❖ Based on underlying RDA/ONIX framework ontology
 - ❖ Potential to map SWAP:Manifestion.Format (MIME type values) and SWAP:Expression.Type (SWAP values) to ontology
 - ❖ Improve interoperability – better than direct SWAP<>RDA mapping
- ❖ A problem with titles?
 - ❖ RDA uses FRBR:Work.Title and FRBR:Manifestation.Title
 - ❖ But not FRBR:Expression.Title (derived from manifestation)
 - ❖ SWAP has ScholarlyWork.Title and Expression.Title
 - ❖ But not Manifestation.Title (derived from expression?)



Thank you

- ✧ g.dunsire@strath.ac.uk
- ✧ See DCMI RDA Task Group wiki for FRBR project
 - ✧ <http://dublincore.org/dcmirdataskgroup/>

JISC DC Application Profiles

**Scholarly Communications Community
workshop**

DC-2008 Berlin, 24 September 2008

Rosemary Russell
UKOLN, University of Bath



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In addition to SWAP:

- 3 'sister' profiles - (partly) based on SWAP
- Resource-type based:
 - images
 - geospatial
 - time based media
- Not such defined communities as SWAP
- Richer metadata and improved discovery (Intute Repository Search and other aggregators)
- Also two AP scoping studies
 - Learning materials (almost complete)
 - <http://www.icbl.hw.ac.uk/lmap/>
 - Scientific/research data (just starting at UKOLN)



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Images Application Profile (IAP)

- Images are difficult to describe...
- Scope - digital still images
- Work with existing image standards eg VRA
- Omits FRBR 'Expression'
 - decided didn't work for images (don't have different 'intellectual or artistic' expressions)
 - instead use multiple manifestations (for edited images eg crops)
- What about interoperability with other profiles?
- Reinstate 'Expression'?
- Draft profile available:
 - http://www.ukoln.ac.uk/repositories/digirep/index/Images_Application_Profile
 - <http://www.ariadne.ac.uk/issue55/eadie/>



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Geo Spatial Application Profile (GAP)

- Maps, imagery, datasets
- Limit to defining encoding schemes for specific DC elements (vocabulary and syntax)
- Different to others - more a module/plug-in than an independent AP
- Draft:
 - http://www.ukoln.ac.uk/repositories/digirep/index/Geospatial_Application_Profile



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Time-Based Media (TBM)

- The most complex?
- Decided to start with video
- At an earlier stage than others
- Difficult to decide on appropriate level of granularity – just catalogue high levels?
- A lot of metadata can't be extracted automatically, but too much to be dealt with manually
- [http://wiki.manchester.ac.uk/tbmap/index.php/Main Page](http://wiki.manchester.ac.uk/tbmap/index.php/Main_Page)



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Issues

- Likely to need to work across resource-type boundaries
 - compatibility of domain models...
- Developers concerned about multiple APIs to implement
- Suggestion for shared 'core' model (based on FRBR? other?) with extensions for different resource types?
- Need for testing/exemplars...? (would help repository managers see potential)



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Implementation (SWAP)...

- Despite enthusiasm for SWAP, no 'proper' implementation...
- Implementation by repository software developers needed first
- Too complex?
- New JISC AP support posts
 - priorities?
 - what is feasible?
- JISC also funding SWAP implementation in DSpace



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