### Vocabulary Evolution and Management for the Digital Cultural Heritage Sector



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Interoperability Focus







#### **About UKOLN**

- Digital information management -
- Provide advice and services to communities inc.:
  - Library
  - Information
  - Education
  - Cultural Heritage
- Jointly funded by the MLA and the JISC

## Starting with the obvious...

- What is metadata?
  - "It's been in the Guardian, so everybody knows what metadata is"
- Document surrogates
  - -Why?
  - What?

### Metadata: data about data

- What information do we need to know
   or share about this object?
- Lots of details are irrelevant
- Lots are potentially relevant
- Some are observations, some are interpretations or reactions
- What details do we choose?

### Elements, Schemas and APs

- Each detail is an element
- Each collection of facts is a schema
- Each description characterising a way of using a collection is an application profile (DC)

### Types of metadata

- DC shares a lot with other types of metadata, on this level
- Shared aims:
  - Promotion of reuse;
  - Encouraging consistent use within a context;
  - High quality metadata



## How do we ensure goodquality metadata?

- Well-trained staff for indexing work
- Lots of readable documentation:
  - The metadata
  - Its use (including examples)
  - The underlying conceptual modelhow it all fits together

### A familiar model?

- Jakob Nielsen: "Speak the users' language"
- But isn't this an argument against reusability?
  - In digital cultural heritage, there are many specialised groups
  - Each has a specialised use of vocabulary

### Effects of specialisation

- Inconsistency:
  - Use of language can vary between and within groups or contexts (inter-indexer)
  - Furthermore, an individual asked to contribute metadata for the same object on two occasions may not produce the same metadata twice! (intra-indexer)

## How do we mitigate all this?

- One familiar structure is the metadata schema registry, to support the processes of:
  - Developing APs/schemas/elements
  - Publishing what has been completed
  - Supporting people in its use
  - Sharing experiences and notes
  - Encouraging reuse or partial reuse

## How is an MSR technically structured?

- Could be an Excel sheet
- Could be an XML document
- Could be an RDF-backed aggregation of a back-end service and a collection of front-end interfaces, plus links to user-targeted services.

See ISO 11179

## The process of creating a metadata AP

- Collaborative: many interested parties.
- A compromise between relevant groups:
  - End-users
  - Developers (technical feasability)
  - Domain experts
  - etc



## Negotiating a compromise

Developers:practical interests, computability, etc



End-users: adequate representation using appropriate terminology and describing the right details Domain experts:
accurate
representation using
domain-specific
terminology



### Maintenance

- Things change.
  - "Change is a constant" OCLC, about the Dewey Decimal Classification
- Models reflect our preconceptions; attitudes, theories, understanding
- Change is often prescribed, or can be observed in action

# Comparison to an informal approach: social tagging

- Currently very popular
  - Cheerful anarchy!
- Annotations containing whatever comes into the user's mind, given the interface and a resource
- Easy for the user to write, but computationally difficult

### A spectrum of annotations





## What's the Right Answer?

- No one right answer
- Different contexts diverse successful approaches.
- Situated in a cultural/organisational context
- It's all about compromise and understanding your requirements, so often the right answer will involve several technologies or approaches

### Discussion

- Advantages and disadvantages of each type of metadata
- Interface considerations and opportunities
- Making the most of the metadata -
- and the communities!...

### Example: Steve.museum

- Jennifer Trant's work on linking of social tagging with terms provided by trained cataloguers
- Shows the benefits and disadvantages of each, particularly accessibility benefits through "speaking the users' language"

### Conclusion

- There exist useful tools and best practices for managing vocabularies: the metadata registry concept, for example
- It's important to use the right approach for each context, which means understanding the context and stakeholders
- There are excellent case studies available that give ideas, recommendations and advice

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