SI 678 - Preserving Sound and Motion, Winter 2010

Conway, Paul

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Author(s): Paul Conway, 2008-2010.

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SI 678 Preserving Sound and Motion

Class 7 – Preservation metadata
Themes

- Preservation and access
- Description
- PREMIS
- MPEG21 Alternative
- Project management
Preservation & Access

- Inventory control
- Recording change
- Access inside the object
- Facilitating reuse

Access
- Description
- METS
- PREMIS
- MPEG21
Digital Metadata Trends

- Adoption of formal standards
- XML as a common language
- Automating metadata generation
- Preservation intent embedded in metadata

Describing AV Materials

- AACR2 and object description
  - MARC records (exchange format)
- Dublin Core framework (digital objects)
  - ? Simplified MARC
- FRBR (IFLA 1998)
  - Functional Requirements for Bibliographic Records
  - Work, expression, manifestation, item
METS 101

- Origins in early digital library work (Berkeley, Stanford, Penn State, Cornell, NYPL) and DLF
- Descriptive, administrative, structural metadata
- Maintained by the Library of Congress

http://www.loc.gov/standards/mets/profiles/00000007.html
PREMIS

- Origins in Waters/Garrett 1996
- Spurred by international attention to OAIS
  - Reference, Fixity, Context, Provenance
- Seeks to balance fixity and change

- Guenther and Xie, Implementing PREMIS (2007).
Core Elements: Data Model

Preservation Metadata: Implementation Strategies

Source Undetermined
**Sample data dictionary entry**

<table>
<thead>
<tr>
<th>Semantic unit</th>
<th>size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic components</td>
<td>None</td>
</tr>
<tr>
<td>Definition</td>
<td>The size of a file or bitstream in bytes.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Size is useful for knowing whether you have retrieved the correct number of bytes from storage and whether an application has enough room to move or process files. It might also be used when billing for storage.</td>
</tr>
<tr>
<td>Data constraint</td>
<td>Integer</td>
</tr>
<tr>
<td>LEVEL</td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Examples</td>
<td>2038927</td>
</tr>
<tr>
<td>Repeatability</td>
<td>Not repeatable</td>
</tr>
<tr>
<td>Obligation</td>
<td>Optional</td>
</tr>
<tr>
<td>Notes</td>
<td>May be repeated for embedded files.</td>
</tr>
</tbody>
</table>
MPEG21 Alternative

- Digital Item Declaration
- Supports richer user functions
- Most appropriate for interactive works, distributed authorship, and collaborative projects

MPEG 21

- Metadata containers needed for complex digital objects
- “User” interactions with the digital system
- Machine processing of metadata to build system and exchange data

MPEG-21 Digital Item Declaration (DID)

- ISO/IEC 21000-2: Digital Item Declaration
- A promising alternative to represent Digital Objects
- Starting to get supported by some repositories, e.g., aDORe, DSpace, Fedora
- A flexible and expressive model that easily represents compound objects (recursive “item”)
- Attach well-formed XML from persistent namespaces as metadata
- Strong industry support
**Abstract Model for MPEG-21 DID**

**container**: grouping of items and descriptor/statement constructs pertaining to the container

**item**: represents a Digital Item aka Digital Object aka asset. Descriptor/statement constructs convey information about the Digital Item

**component**: binding of descriptor/statements to datastreams

**resource**: datastream
Implementing PREMIS in DID

- DID abstract model is an object-centric containment model
- Semantically, Descriptor/statement constructs under a certain level are the metadata “about” that level of DID container or item or component.
- Descriptor/statement about the DID container should be mapped to OAIS packaging information, therefore out of the PREMIS scope
- Rights, Agents, and Events in the PREMIS model are **linked** to the objects, but not **about** the objects.
- However, the PREMIS metadata as a whole (premis:premis), is about an object (the target of the preservation)
Managing a preservation project

- Process and opportunities for digital
- Vendor relationships
- Future directions

Digital cinema
Intermediates
Project management

Thank you!

Paul Conway
Associate Professor
School of Information
University of Michigan
www.si.umich.edu