The Standards Paradox: Case Studies in Conforming to or Abandoning Metadata Standards

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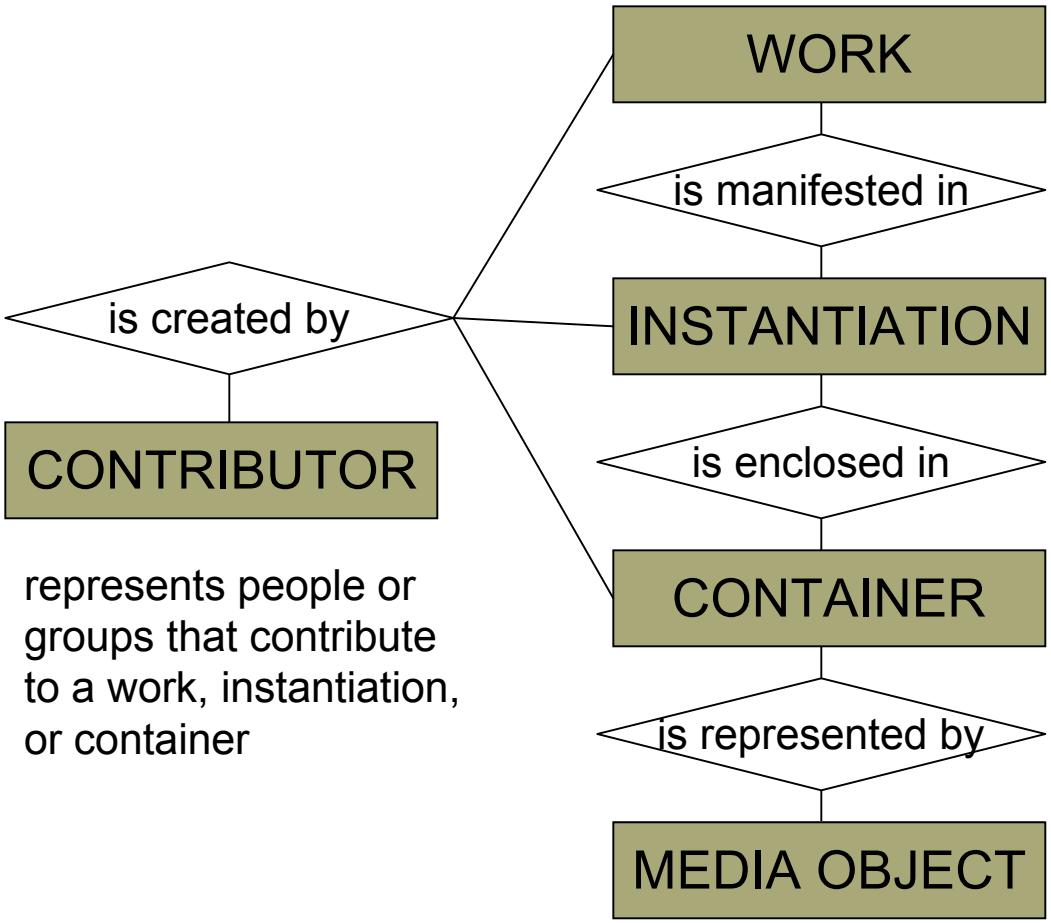
Variations2/3: Digital Music Library

From local model to standard model

Current locally-designed model



represents the abstract concept of a musical composition or set of compositions

represents a manifestation of a work as a recorded performance or a score

represents the physical item or set of items on which one or more instantiations of works can be found (e.g., CD, score)

represents a piece of digital media content (e.g., sound file, score image)

represents people or groups that contribute to a work, instantiation, or container

FRBR as an alternative model

- "Functional Requirements for Bibliographic Records"
- 1998 report from IFLA
- *Conceptual model* describing the entities and relationships underlying bibliographic information
- Only recently gaining real traction
  - Open WorldCat is semi-FRBRized
  - New RDA content standard will be based on FRBR principles

V3 vs. FRBR – loose mapping

Variations2 Entity	FRBR Group 1 Entity
Work (more concrete than FRBR Work)	Work
Instantiation (can only appear on one Container)	Expression
Container (includes some copy-specific data)	Manifestation
Media Object (defined as a digital file)	Item

Possible benefits of moving to FRBR

- Improve system sustainability
- Better integration with future catalogs
- More easily support cooperative cataloging
- Get some other features of the model “free”
  - Group 2 and 3 entities
  - User tasks

Possible drawbacks of moving to FRBR

- No approved binding of FRBR conceptual model to a true data structure exists
  - Unclear what it means to be "FRBR compliant"
  - We'd have to make up our own data structure based on the standard conceptual model
- Our current model is so close to FRBR, it is unclear if the benefits will outweigh the costs

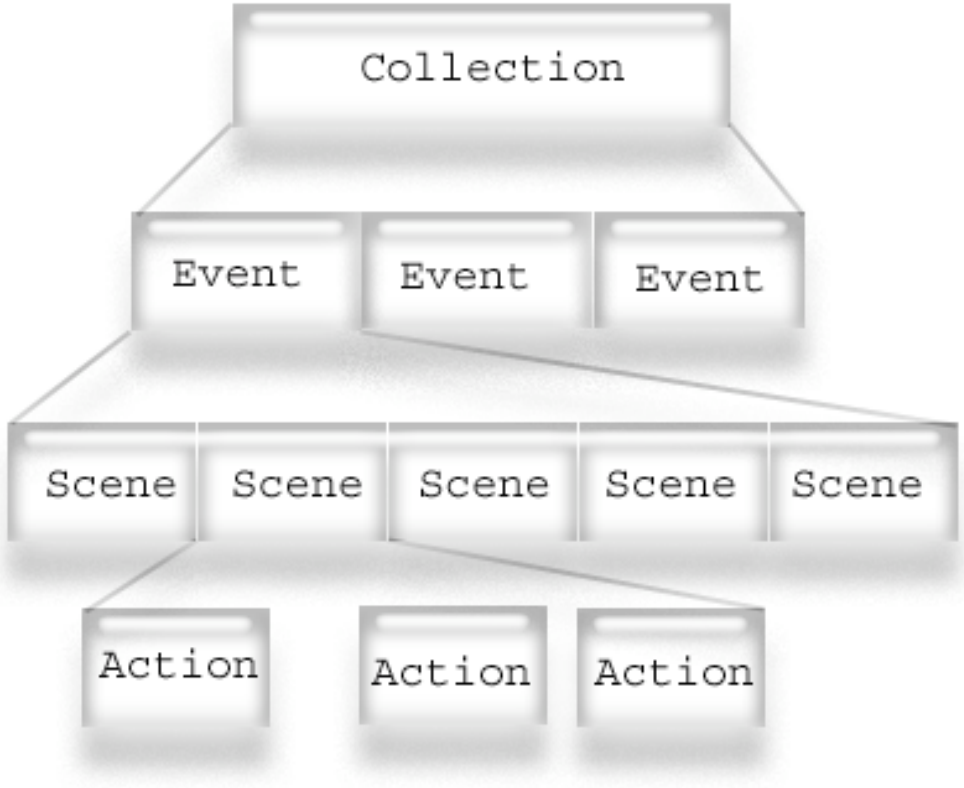
Current status of switch

- FRBR modeling documentation created
  - Report on applying FRBR to music
  - Data dictionary (draft)
  - XML Schema (draft)
- Switch still in proposal stage
  - Advisors believe it's a good idea
  - We don't know if we have time to implement it as part of current project
- Still undecided as to how to model non-musical content

EVIADA: Ethnographic Video

From standard model to local model

EVIADA conceptual model



slide courtesy of Will Cowan, EVIADA project

Original metadata model

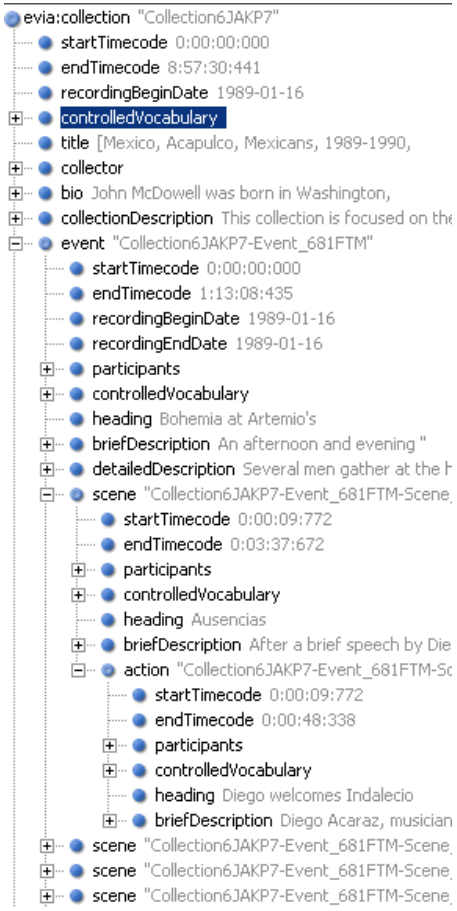
- MODS descriptive metadata record for each collection, event, scene, action
  - Was a bit of a stretch, but we made it work
- Forthcoming AES audio technical metadata
- Slightly revised version of LC video technical metadata
- Forthcoming AES process history (digiprov) metadata
- METS wrapper

New required functionality stretched MODS usage too far

- Text formatting
  - lists
  - paragraphs
  - bold, italics, etc.
- Glossary
- Bibliography
- Video technical problems
- Transcriptions
- Translations

New internal descriptive model

- Hierarchical collection/event/scene/action
- Goes beyond “bibliographic” information
  - timecodes
  - text markup
  - internal linking
- Still stores technical and process history metadata in standard formats
- Could export any needed combination of descriptive and technical/process history metadata together in a single METS wrapper



Exports into standard representations

- Designed for sharing, not internal representation; therefore can afford to leave things out
- EAD
  - hierarchical, for sharing with archives, although event/scene/action not the normal hierarchy
  - one document has entire collection hierarchy
- MODS
  - for sharing with libraries
  - individual records can be generated for collection, event, scene, action on demand

Lessons learned

Or, so, now what?

Assessing standards

- Clearly define functional requirements – what functions does your descriptive metadata need to support?
- The functional requirements suggest a certain conceptual model to underlie your metadata
- Compare existing descriptive metadata structure standards against your functional requirements and conceptual model
- Use a standard internally whenever it meets defined functional requirements; take inspiration from them regardless

The increasing role of conceptual modeling

- Trend is toward clearer conceptual models, e.g., DCMI Abstract Model, FRBR in RDA
- Will likely result in better interoperability among metadata standards
- Conformance to conceptual models is more important than conformance to metadata structure standards

The decision then becomes, "Which conceptual model should I use?" rather than "Which descriptive metadata structure standard should I use?"

For more information

- These presentation slides: <http://www.dlib.indiana.edu/~jenlrile/presentations/dlfFall2007/standardsParadox.ppt>
- "Shareable" metadata
  - OAI Best Practices for Shareable Metadata <http://webservices.itcs.umich.edu/mediawiki/oaibp/index.php/ShareableMetadataPublic>
  - Metadata for You & Me <http://images.library.uiuc.edu/projects/mym/>
- Variations3 <http://www.dlib.indiana.edu/projects/variations3/>
- EVIADA <http://www.indiana.edu/~eviada/>