The Problem
The Problem

FIND
IDENTIFY
SELECT
OBTAIN
• Carmen – The Ballet
• Carmen – The Score
• Carmen – On Ice
• Carmen – 1983 Movie

The Problem
What Is Metadata

• Metadata is in part a solution to these problems.
What is metadata?

Does it have to be....

- in XML?
- in the Web environment?
- machine readable?
- for electronic resources only?
Is this metadata?
• data about data.

• to impose some order in a disordered information universe. (Carl Lagoze)

• constructed, constructive, and actionable. (Karen Coyle)

Metadata is...
• “structured information that describes, explains, locates, or otherwise makes it easier to retrieve, use, or manage an information resource.”


• “structured, encoded data that describe characteristics of information-bearing entities to aid in the identification, discovery, assessment, and management of the described entities.”

ALA Committee on Cataloging: Description and Access

Metadata is...
• Structured data

• Facilitate some types of actions
  • Find, identify, select, and obtain (FRBR)
  • Organization & management

• The difference between data, metadata, and meta-metadata is often one of perspective.

Boil down...
Who Creates Metadata?
FUNCTION REQUIREMENT OF BIBLIOGRAPHIC RECORDS

A Theory of Metadata
Works
Agents

Figure 3.2: Group 2 Entities and “Responsibility” Relationships

- WORK
- EXPRESSION
- MANIFESTATION
- ITEM
- PERSON
- CORPORATE BODY

- is owned by
- is produced by
- is realized by
- is created by
Subjects
Sample Work Attributes

- title of the work
- form of work
- date of the work
- other distinguishing characteristic
- intended termination
- intended audience
- context for the work
- medium of performance (musical work)
- numeric designation (musical work)
- key (musical work)
- coordinates (cartographic work)
- equinox (cartographic work)
Sample Expression Attributes

- title of the expression
- form of expression
- date of expression
- language of expression
- other distinguishing characteristic
- extensibility of expression
- revisability of expression
- extent of the expression
- summarization of content
- context for the expression
- critical response to the expression
- use restrictions on the expression
- sequencing pattern (serial)
- expected regularity of issue (serial)
- expected frequency of issue (serial)

- type of score (musical notation)
- medium of performance (musical notation or recorded sound)
- scale (cartographic image/object)
- projection (cartographic image/object)
- presentation technique (cartographic image/object)
- representation of relief (cartographic image/object)
- geodetic, grid, and vertical measurement (cartographic image/object)
- recording technique (remote sensing image)
- special characteristic (remote sensing image)
- technique (graphic or projected image)
Sample Manifestation Attributes

- title of the manifestation
- statement of responsibility
- edition/issue designation
- place of publication/distribution
- publisher/distributor
- date of publication/distribution
- fabricator/manufacturer
- series statement
- form of carrier
- extent of the carrier
- physical medium
- capture mode
- dimensions of the carrier
- manifestation identifier
- source for acquisition/access authorization
- terms of availability
- access restrictions on the manifestation
- typeface (printed book)
- type size (printed book)
- foliation (hand-printed book)
- collation (hand-printed book)
- publication status (serial)
- numbering (serial)
- playing speed (sound recording)
- groove width (sound recording)
- kind of cutting (sound recording)
- tape configuration (sound recording)
- kind of sound (sound recording)
- special reproduction characteristic (sound recording)
- colour (image)
- reduction ratio (microform)
- polarity (microform or visual projection)
- generation (microform or visual projection)
- presentation format (visual projection)
- system requirements (electronic resource)
- file characteristics (electronic resource)
- mode of access (remote access electronic resource)
- access address (remote access electronic resource)
Sample Item Attributes

- item identifier
- fingerprint
- provenance of the item
- marks/inscriptions
- exhibition history
- condition of the item
- treatment history
- scheduled treatment
- access restrictions on the item
What FRBR Buys Us

• An explicit relationship between entities

• A mechanism for determining what attributes are required

• A common language

• A framework for extension and schema creation
Exercise

- Develop a metadata record using FRBR for the given objects.
Open Archive Information Systems Metadata Ontology
• The “representational network” can get big
• Stopping rules?

Representation Metadata
Descriptive Metadata

• Identifies a resource and describes its intellectual content
• Title, author, keywords…
• MARC, DC, EAD…
Technical Metadata

• focuses on how a digital object was created
• format, identifier, date…
• PBCore, MIX, NISO Z39.87, TextMD…
Preservation Provenance

Metadata (Administrative)

• contains information needed to archive and preserve a resource
• Provides a history of ownership and changes
• OAIS, PREMIS
• Checksums (MD5, SHA1)
• Specifies intellectual property rights and permissions
• CopyrightMD,
• Creative Commons
• Apache Software License
• GNU GPL
Exercise
What schema to use?

- Simple schema (DC)
- Complex schema
- Application profile (mix and match)
“Seeing Standards: A Visualization of the Metadata Universe”
Jenn Riley

<http://www.dlib.indiana.edu/~jenlrile/metadatamap/>
one size fits all?
Application profiles are tailored for particular implementations and will typically contain combinations of sub-sets of one or more namespace schemas.

“Application profiles: mixing and matching metadata schemas.”
by Heery & Manjula
<http://www.ariadne.ac.uk/issue25/app-profiles>
http://dublincore.org/documents/profile-guidelines/
• What is the goal of this application? What functions that your metadata is going to support?

• What do you need? What don’t you need?
• Search?
• Browse?
• Filter?
• Link to relevant items/collections?

• My book bag?
• Save for later?

the poster collection
What terms your want to use?
Is the element required or optional?
Refine

existing schema/vocabularies

your AP
Refine and Customize

existing schema/vocabularies

your AP
Combine your existing schema/vocabularies A and existing schema/vocabularies B.
application profiles

MODS

Your custom elements

DC

Your custom elements
• October 19, 2012
• Oct. 19, 2012
• 10-19-2012
• 10/19/2012
• 10/19/2012
• 10/19/2012
• 2012-10-19

Controlled Vocabularies
• Is it too strict and complicated? Less people will adopt it if it’s too complicated.
• Is it too flexible? Less people will seriously follow the rules if it’s too flexible.

Flexibility vs. Interoperability
• Decisions! Decisions!
• Write it down, both human readable and machine readable.
RSLP Collection Description Schema

- dc:title: The name of the collection
- dc:identifier: A formal identifier for the collection
- dc:description: A description of the collection
- cld:strength: An indication (free text or formalised) of the strength(s) of the collection
- cld:accessControl: A statement of any access restrictions placed on the collection including allowed users, charges etc

Example
• Save everybody’s time (especially programmers’)
• Be consistent within guideline
• Maybe people with the same need will join us

What’s good about AP?