An Introduction to Shareable Metadata
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Thanks to…

Some content and examples borrowed, with permission, from Jenn Riley and Sarah Shreeves’ workshop series, *Metadata for You and Me*, funded by the Institute of Museum and Library Services (IMLS).

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First, an exercise…
What does this record describe?

- `<dc:title>Bowie County Texas (County Number 19, Supplementary Sheet D)</dc:title>`
- `<dc:creator>Texas Transportation Planning and Programming Division.</dc:creator>`
- `<dc:subject>Texarkana</dc:subject>`
- `<dc:subject>Kennedy Lake</dc:subject>`
- `<dc:subject>Coca Cola Lake</dc:subject>`
- `<dc:subject>Hobo Jungle Park</dc:subject>`
- `<dc:publisher>The General Libraries, University of State</dc:publisher>`
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Example from Metadata for You and Me
How about this one?

• <dc:identifier>http://museum.university.edu/unique identifier</dc:identifier>
• <dc:publisher>State University Museum of Ichthyology, Fish Field Notes</dc:publisher>
• <dc:format>jpeg</dc:format>
• <dc:rights>These pages may be freely searched and displayed. Permission must be received for subsequent distribution in print or electronically. Please go to http://museum.university.edu/ for more information.</dc:rights>
• <dc:type>image</dc:type>
• <dc:description>1926; 0070; 06; Little S. Br. Pere Marquette R.; THL26-68; 71300; 71301; 71302; 71303; 71304; 71305; 71306; 71307; 71308; 71309; 07; 1926/07/06; R12W; S09; Second collector Moody; T16N</dc:description>
• <dc:subject>Cottus bairdi; Esox lucius; Cottus cognatus; Etheostoma nigrum; Salmo trutta; Oncorhynchus mykiss; Catostomus commersoni; Pimephales notatus; Margariscus margarita; Rhinichthys atratulus; mottled sculpin; northern pike; slimy sculpin; johnny darter; brown trout; rainbow trout; white sucker; bluntnose minnow…</dc:subject>
• <dc:language>UND</dc:language>
• <dc:source>Michigan 1926 Langlois, v. 1 1926--1926; </dc:source>
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Example from Metadata for You and Me
And this one?

<table>
<thead>
<tr>
<th>Title</th>
<th>Untitled song</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author/Creator</td>
<td>Phillips, Nat</td>
</tr>
<tr>
<td>Resource Type</td>
<td>Generic Document</td>
</tr>
<tr>
<td>Note</td>
<td>Song</td>
</tr>
<tr>
<td>Subject</td>
<td>410000 The Arts; 410100 Performing Arts; 410102 Drama, Theatre and Performance Studies</td>
</tr>
</tbody>
</table>

Record retrieved from OAIster 7/23/08
An Introduction to Shareable Metadata
Contents

- Why should I share metadata?
- How can I share metadata?
- What is shareable metadata, anyway?
- How can I create it?
Why should I share metadata?
Why should I share metadata?

- It’s good for users!
  - Fewer-stop shopping
  - Wide-net searching
    - WorldCat®
    - OAIster
  - Discipline-specific searching
    - dl-harvest
Why should I share metadata?

- It’s also good for libraries!
  - Can’t assume users will come to us
  - Sharing = exposure
  - Exposure = users
  - Users = proven usefulness

- Increased opportunities for collaboration
  - With other libraries
  - With users (tagging, etc.)
How can I share metadata?
Ways to share metadata

• Federated searching

• Aggregators
  – OAI-PMH

• Contributing content
Federated Searching

• Repositories are searched individually, and the results are combined
• Examples: Z39.50, SRU

  – **Pro:** Everyone maintains their own records
  – **Cons:** Slow, distributed infrastructure, can’t manipulate results sets or standardize records
Aggregators

- Harvest metadata records and maintain them locally
- Examples:
  - **Pro:** More efficient searching, standardized records, increasingly popular
  - **Con:** Can be out of date if records changed since last harvest
OAI-PMH: What is it?

The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)

- Lets you expose your metadata to harvesters who create aggregations
- Most OAI-PMH uses Unqualified Dublin Core, but it can support other metadata formats
- Quickly becoming the standard for metadata sharing in libraries
OAI-PMH: How to use it?

- 3 methods for exposing your metadata with the OAI-PMH protocol
  - Turn on the OAI-PMH module in your repository software (DSpace, ContentDM)
  - Create a standalone OAI-PMH server and load your records into it
  - Create a Static Repository
    - Best for small, static collections of metadata
    - Metadata records in an XML document
    - Share via a Static Repository Gateway
Sharing content

- Libraries contribute digitized items and metadata to 3rd-party repositories
- Example: Flickr Commons and Library of Congress
  - Jan. 16: LoC puts 3,100+ images on Flickr
  - Jan. 18: All 3,100+ images have been viewed, 1.1 million total views, 420 have comments, 1,200 have been favorited

  - **Pro:** Meet users where they are, lots of exposure
  - **Con:** Not yet automated
What is shareable metadata, anyway?
The basics: What is metadata?

- Metadata is structured data about library collections
- What does it do?
  - Provides access to objects (descriptive)
  - Assists in management of objects (administrative, technical, and preservation)
- A helpful way to look at it:
  - Metadata is a collection of information about an object with different ‘views’ for different uses/users.
The basics: Metadata as ‘view’

**Generic**
dc.format: picture
dc.subject: dogs

**Art**
dc.format: color photography
dc.subject: eyes (motifs)

**Scientific**
dc.format: color slide
dc.subject: *Canis lupus familiaris*

**Personal**
dc.format: Facebook photo
dc.subject: Cholla
The basics: Metadata as ‘view’

- Some views are based on privacy or security
  - Example: in DSpace, dc.provenance only displays for administrators because it contains automatically-generated information about submitters
- Most software (DSpace, ContentDM, etc.) does not allow for creating custom ‘views’ of metadata
- Thinking about your metadata in terms of ‘views’ can be helpful when you need it to support multiple activities (e.g. display, preservation, reuse, etc.)
What is shareable metadata?

• A view of your metadata that promotes search interoperability
• May be different from the view that is most useful locally
  – May be less rich
  – May avoid specialized fields and vocabularies
  – May contain contextual information that would be redundant locally
Characteristics of shareable metadata

• Quality metadata
  – Consistent
  – Elements used appropriately
• Human understandable outside local context
  – Does not rely on a specific delivery platform
  – Contains collection-level information
• Preferably machine processable
  – Allows for batch processes that enhance or standardize
How can I create shareable metadata?
Creating shareable metadata

Plan → Create → Transform → Share → Assess

Plan for shareability
Create quality metadata
Create shareable ‘view’ if necessary (XSLT, etc.)
Share metadata (OAI-PMH or other)
Evaluate your shared records for coherence and usefulness
Some things to consider

• Be consistent and use standards
  – It’s even more important in a shared environment!
  – What are your peer institutions doing? Consider sharing in the same way.

• Do it right
  – Don’t hack the metadata to accommodate the software!
  – If you have to hack something, hack the interface
Some more things to consider

• Build context into your records (don’t rely on collection-level records)
• Document your metadata practices for aggregators
  – It will help them understand what you’ve got and standardize/enhance it
  – Example: DC records generated from MARC records have certain quirks. Aggregators can run scripts to change them.
  – Use OAI-PMH functions or collection ‘About’ pages to document
Some final things to consider

• Before you share, look at some of your records as they will appear to an aggregator – revise accordingly
• After you share, see how your metadata looks in different contexts – revise accordingly
• Think twice about sharing metadata for inaccessible items
References and Resources


- Dublin Core Metadata Initiative ([http://dublincore.org/](http://dublincore.org/))
- Flickr: The Commons ([http://www.flickr.com/commons](http://www.flickr.com/commons))
- Open Archives Initiative ([http://www.openarchives.org/](http://www.openarchives.org/))
- OAIster (University of Michigan) ([http://www.oaister.org/](http://www.oaister.org/))
Questions?

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