Creating rich shareable metadata: The DLF Aquifer MODS implementation guidelines

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Using Metadata Standards in Digital Libraries: implementing METS, MODS, PREMIS and MIX – Sponsored by the LITA Standards Interest Group

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Outline

• Context – DLF and Aquifer

• Guidelines

• What is Shareable metadata?

• Guidelines

• What are we working on now?
What is the Digital Library Federation?

... an international association of libraries and allied institutions.

Mission:

to enable new research and scholarship of its members, students, scholars, lifelong learners, and the general public by developing an international network of digital libraries.
DLF Aquifer Initiative
http://www.diglib.org/aquifer/

Purpose is to promote effective use of distributed digital library content for teaching, learning, and research in the area of American culture and life.

Bringing distributed content together and pushing it out to scholars and researchers

Awarded $816,000 from the Mellon Foundation for DLF Aquifer Development for Interoperability Across Scholarly Repositories: American Social History Online

Initial aggregation at: http://quod.lib.umich.edu/a/aquifer/
**Currently 230,340 MODS records from 5 institutions**

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<th>Record 1 of 52</th>
<th>add to bookbag</th>
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</thead>
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<td>Annual Banquet, National Hardwood Lumber Dealers Assn., Memphis, Tenn</td>
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<td><strong>Author/Creator</strong></td>
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</tr>
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<td><strong>Subject</strong></td>
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<td><strong>Note</strong></td>
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<table>
<thead>
<tr>
<th>Record 2 of 52</th>
<th>add to bookbag</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td>Back to my sweetheart</td>
</tr>
<tr>
<td><strong>Alternative Title</strong></td>
<td>Softly o'er the mountain fall the dear old golden moon</td>
</tr>
</tbody>
</table>
Background

• OAI PMH allows metadata to be harvested from multiple data providers
  – Usually metadata is brought together into aggregations (like OAIster)
• OAI PMH requires use of simple Dublin Core but allows use of other metadata schemas
  – Most data providers only provide Dublin Core; most aggregators only harvest Dublin Core
Difficulties in Building Services in Aggregations

- Use of Dublin Core often problematic
  - Lack of semantic complexity
- Metadata authors often are not thinking about sharing metadata outside of their local contexts
- Metadata between different collections inconsistent
- Few user studies of aggregations

- Building browse, targeted search, facets, etc... has been very, very, very difficult for aggregators
What’s different about Aquifer’s American Social History Online?

• Only harvest MODS records and provide guidance for ‘shareable MODS records’
• Interoperability / middleware layer to integrate collections into local environments
  – Course management system
  – Portal with link to citation management
  – Commercial search service
  – Federated search
• User studies/end user engagement
DLF Aquifer Implementation Guidelines for Shareable MODS Records

Developed by Aquifer Metadata WG

• Sarah L. Shreeves (University of Illinois at Urbana-Champaign): 2005 - (Chair 2005 – 2006)
• Jenn Riley (Indiana University): 2005 – (Chair 2007 -)
• Laura Akerman (Emory University): 2006 -
• John Chapman (University of Minnesota): 2005 -
• Melanie Feltner-Reichert (University of Tennessee): 2006 -
• Bill Landis (California Digital Library): 2005 -
• Tracy Meehleib (Library of Congress): 2006 -
• Elizabeth Milewicz (Emory University): 2005 - 2006
• David Reynolds (Johns Hopkins University): 2005 -
• Gary Shawver (New York University): 2005 –
DLF Aquifer Implementation Guidelines for Shareable MODS Records

- To help create rich, shareable metadata records that is consistent and coherent
- Meant for shared records, not local implementations
- Focused on humanities and cultural heritage materials
- Based on the DLF / NSDL Best Practices for Shareable Metadata

What is shareable metadata?

- Is **quality** metadata (see Bruce and Hillmann)

- Promotes **search interoperability**
  “the ability to perform a search over diverse sets of metadata records and obtain meaningful results.”
  (Priscilla Caplan)

- Is **human understandable** outside of its local context

- Is **useful** outside of its local context

- Is **machine processable**
Metadata as a view of a resource

• No monolithic one-size-fits-all metadata record
• The view might be different depending on use and audience as well as format, content, and context
  • Content standard is a view
  • Metadata standard is a view
  • Vocabulary used is a view
Format of the Guidelines

- Summary of Requirements and Recommendations
- Definition from LC’s MODS User Guidelines
- Discussion of Use
- Examples
- Use by Aggregators
- Mapping to Dublin Core
- Relationship to DLF/NSDL Best Practices
Required elements

<titleInfo><title>
<titleOfResource>
<originInfo> and at least one date subelement with keydate="yes"
<language> if language primary to resource
<physicalDescription><digitalOrigin>
<physicalDescription><internetMediaType>
<subject> if applicable
<location><url usage="primary display">
<accessCondition type="use and reproduction">
<recordInfo><languageOfCataloging>
<recordInfo><languageTerm>
Recommended elements

- `<name>`
- `<namePart>`
- `<genre>`
- `<abstract>`
- `<tableOfContents>` if applicable
- `<targetAudience>` if applicable
- `<note>` if applicable
- `<relatedItem>` if applicable
- `<identifier>`
- `<part>` if applicable
Optional elements

<classification>
<extension>
Levels of Adoption - Tied to user tasks

1. Minimum for participation: Allows users to cite the resource
2. Minimum for doing anything useful: Allows users to perform basic searches and filtering
3. Allows more advanced functionality: Allows users to browse and group search results
4. Adopt all required guidelines (and some recommended): Allows users to perform more precise searches
5. Completely adopt all recommendations: Allows users to effectively evaluate resources
Title: Life Mask of Stephen A. Douglas
Name (authority=naf): Leonard Wells
Role: Sculptor
Type of Resource: three dimensional object
Genre: life masks
Genre: casts (sculpture)
Date created (w3cdtf keyDate="yes"): 1858
Form authority="gmd": art original
InternetMediaType: image/jpeg
Subject: Douglas, Stephen Arnold 1813-1861
URL usage="primary display"
  access="object in context":http://images.library.uiuc.edu:8081/u?/tdc,252
AccessCondition
type="useAndReproduction": Use of this public-domain resource is unrestricted.
What else are we working on?

- Release of the level of adoptions
- MARC → MODS stylesheet
  - Currently in testing
- Validation tool for MODS records against the full guidelines
  - Still in development
- Also, Aquifer is interested in collections (from non-DLF institutions as well as DLF institutions) – contact Katherine Kott, Director of the Aquifer Initiative.
Contact Information

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References:


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