11-12-2004

The OhioLINK Digital Media Center Application Profile, a New Tool for Ohio Digital Collections

Emily A. Hicks
*University of Dayton, ehicks1@udayton.edu*

Jody Perkins
*Miami University - Oxford*

Margaret Maurer
*Kent State University - Kent Campus*

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Recommended Citation

Hicks, Emily A.; Perkins, Jody; and Maurer, Margaret, "The OhioLINK Digital Media Center Application Profile, a New Tool for Ohio Digital Collections" (2004). *Roesch Library Faculty Presentations*. 16.

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OhioLINK DMC Metadata Task Force Report:

The OhioLINK Digital Media Center Application Profile, a New Tool for Ohio Digital Collections

Academic Library Association of Ohio
“Positioning Our Libraries, Positioning Ourselves”
November 12, 2004

Emily Hicks, University of Dayton -- Jody Perkins, Miami University --
Margaret Maurer, Kent State University
The DMC Application Profile Development Process Overview

- Section 1: Introduction
- Section 2: Internal review and research
- Section 3: Building our core
- Section 4: Lessons learned & next steps
Section 1: Introduction

Members of the Task Force:

Charly Bauer, OhioLINK
Alan Boyd, Oberlin College
Cliff Glaviano, Bowling Green State University
Emily Hicks, University of Dayton
Margaret Maurer, Kent State University
Jody Perkins, Miami University (co-chair)
Beth M. Russell, Ohio State University (co-chair)
Task Force Charge:

- Provide direction to DMSC and OhioLINK on the development of the DMC
- Become better informed about current metadata procedures and issues relating to the DMC
- Survey/monitor current and emerging national/international metadata standards
- Educate members of the DMSC on findings
- Draft guidelines for the use of metadata in the DMC and to present these to the DMSC
- Advise those who have proposed projects for the DMC on metadata issues
- Determine initial and on-going training needs for implementing DMSC policies
- Make recommendations to the DMSC on ways that these needs could be met
Section 2: Internal review and research

- DMC internal environment
  - History of DMC
  - Existing DMC Metadata
- Metadata standards reviewed
  - Standards identified
  - Best practices examined
  - Appeal of best practices
History of the Digital Media Center

- 1997 – DMC Established using Bulldog software. Subject databases created
- 2002 – Bulldog purchased by Documentum
- 2002 – Metadata Task Force formed
- 2003 – OCDE Technology Initiatives grant application
- 2004 – DMC Application Profile approved by DMSC
- ??? – Digital Resource Commons of Ohio (DRCO)
# DMC Local Collections

<table>
<thead>
<tr>
<th>Institution</th>
<th>Contributors</th>
<th>Collection</th>
<th>Type of Material</th>
<th>Number submitted</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSU</td>
<td>Borror Lab of Bioacoustics</td>
<td>Borror Lab of Bioacoustics Recorded Animal Sounds</td>
<td>Audio - Recorded Animal Sounds</td>
<td>10,200</td>
<td>Will grow to 29,000</td>
</tr>
<tr>
<td>OSU</td>
<td>Ohio Agricultural Research and Development Center</td>
<td>Ohio Agricultural Experiment Station Forestry Image Collection</td>
<td>Images from glass-plate negatives</td>
<td>5,000</td>
<td>Approximately 400 to be added to complete</td>
</tr>
<tr>
<td>OSU</td>
<td>Center for Epigraphical Studies</td>
<td>Greek and Latin Squeezes (inscriptions)</td>
<td>Images of inscriptions</td>
<td>700</td>
<td>Will grow to more than 10,000 squeezes</td>
</tr>
<tr>
<td>UC</td>
<td>National Underground Freedom Center</td>
<td>William Seibert Collection</td>
<td>Documents and photographs</td>
<td>25</td>
<td>Thousands of documents and images will be added</td>
</tr>
<tr>
<td>UC</td>
<td>Design, Art, Architecture &amp; Planning Library</td>
<td>Architecture of Cincinnati</td>
<td>Images from archival slides</td>
<td>300</td>
<td>Continues to grow as required</td>
</tr>
<tr>
<td>KSU</td>
<td>Department of Special Collections &amp; Archives</td>
<td>Oral History Project: May 4, 1970 Collection. Residents of the community document their feelings on the shootings</td>
<td>Audio files</td>
<td>40</td>
<td>Cataloging underway</td>
</tr>
</tbody>
</table>
# DMC Commercial Collections

<table>
<thead>
<tr>
<th>Collection Name</th>
<th>Type of Material</th>
<th>Number of Items</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encyclopedia of Physics Demonstrations</td>
<td>Short videos of lab experiments</td>
<td>600</td>
<td>Set complete</td>
</tr>
<tr>
<td>LANDSAT 7 Satellite Images of Ohio</td>
<td>Multi-layered satellite data</td>
<td></td>
<td>New images every 16 days, weather permitting</td>
</tr>
<tr>
<td>Sanborn Fire Insurance Maps</td>
<td>Images of large scale street plans of Ohio cities from 1867-1970</td>
<td>40,000</td>
<td>Closed set</td>
</tr>
<tr>
<td>Digital Video Collection</td>
<td>Long-playing educational videos</td>
<td>1,113 VHS tapes</td>
<td>Expands monthly. May expand to collections of other vendors</td>
</tr>
<tr>
<td>Saskia Collection</td>
<td>Art images used in art history classes</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>AMICO Library</td>
<td>Images of art and archaeology objects held in museums across N America</td>
<td>100,000</td>
<td>Grows by 20,000 images each year</td>
</tr>
</tbody>
</table>
DMC metadata issues

- Different collections, audiences and metadata schema
- Multiple types of data structures
- Discrepancies between databases
DMC metadata issues (Continued)

- Different database needs
- Data relationships across databases
- Lack of guidelines and documentation
- Some collections have proprietary metadata (e.g., AMICO)
- Contributors legacy data
Examination of DMC metadata

- Diversity
- Fields that cross collections
- Fields that don’t cross collections
Video record 1 of 1 is displayed.

**Constructive Communications: Talking Your Way to Success**

Series: 90's Communication (3 Parts Series)

Description: This program guides viewers through an easy communications process. Students learn constructive communications by identifying the effect they hope to achieve; understanding the knowledge and attitude of their Audience; explaining the Subject with specific and organized information; and seeing the positive effects of knowing and understanding Yourself.

Date: 1992

Producer: Cambridge Educational

Subject: Business Education

Length: 30 min.

Copyright: Films for the Humanities & Sciences

[View Video](http://www.real.com) [Download Video] [130.16 Mb] (right-click link and select "save target as" to download)

Videos can be viewed with the free RealPlayer from [http://www.real.com](http://www.real.com)

To bookmark this page use: [http://rave.ohiolink.edu/dmc/video/2705892](http://rave.ohiolink.edu/dmc/video/2705892)
Image record 1 of 2 is displayed.

**El Castillo**

Description: New Group
Place: Chichen Itza (deserted settlement), Yucatan (state)
Creator: Grimm, Linda T.
Subject: Maya architecture Mexico
Coverage: Classic Period (A.D. 300-900) - Postclassic Period (A.D. 900-1521)
Temporal:
Material: Limestone
Contributor: Grimm, Linda T., Department of Anthropology
Institution: Oberlin College
Collection: Professor Linda T. Grimm Collection
Source: 35 mm Kodachrome slide
Reference: Maya / edited by Peter Schmidt, Mercedes de la Garza, Enrique Nalda New York: Rizzoli, 1998; Archaeology of ancient Mexico and Central America: an encyclopedia / Susan Toby Evans, David L. Webster, editors. New York: Garland Pub., 2001; Function and m
Image record 5 of 47 is displayed.

Title: At the Concert
Creator: Renoir, Pierre Auguste, European; French 1841-1919
Creation Date: 1880
Object Type: Paintings
Measurements: 39 1/16 in. x 31 3/4 ; 99.20 cm. x 80.60 cm.
Materials: oil on canvas
Owner: Clark Art Institute
Owner Credit: Williamstown, Massachusetts, USA
Accession Number: 1955.594
Source: The AMICO Library - This work is licensed for educational use.

© http://www.clarkart.edu/museum_programs/index.cfm?ID=85

-Additional Data-
Creation-Date-Start: 1880
Creation-Date-End: 1880
AMICO-Validated-Date: 20010421
Validation-Dictionary-Version: 1.3
AMICO Library Year: 2001

To bookmark this page use: http://dmc.ohiolink.edu/art/Details?oid=CAI__1955.594
Examination of DMC - Conclusions

- Some unique fields
- Some common fields that map to Dublin Core, VRA Core and Western States Core
- The need for a core set of elements
- Determined that a cross-disciplinary core would be best
Conduct member survey?

- Identify current local practices, future expectations, etc.
- Decided against this approach:
  - Sufficient activity in digitization projects questionable
  - Contact persons hard to identify
  - Ability to acquire information questionable
  - Value of results unclear
MetaMap

Position the mouse over an acronym to see what it stands for in a popup window. Click on the acronym to see its definition and a link to its official site.
Beginning to define the DMC core

<table>
<thead>
<tr>
<th>WESTERN STATES CORE</th>
<th>DUBRIN CORE</th>
<th>OhioLINK-DMC</th>
<th>OhioLINK CARDINALITY</th>
<th>OhioLINK REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Title</td>
<td>Title</td>
<td>1:1 or M:1</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Title Alternative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creators</td>
<td>Creators</td>
<td>Creators</td>
<td>M:1</td>
<td>Required</td>
</tr>
<tr>
<td>Subjects</td>
<td>Subjects</td>
<td>Subjects</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DC**: A name given to a resource. Typically, a title will be a name by which the resource is formally known.

**Western**: Name given to the resource by the creator or publisher, or may also be identifying phrase or name of the object supplied by the holding-institution. Mandatory. Repeatable. M:1

**OhioLINK**

Refinement: Western States doesn't define when to use this versus Title.

**DC**: An entity primarily responsible for making the content of the resource. Examples of Creator include a person, an organization, or a service. Typically, the name of a Creator should be used to indicate the entity.

**Western**: An entity primarily responsible for creating the intellectual content of the resource. Examples of creators include authors of written documents; artists; illustrators; photographers; collectors of natural specimens or artifacts; organizations that generate archival collections; etc. Mandatory if available. Repeatable. M:1

**OhioLINK**

**DC**: A topic of the content of the resource. Typically, Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.

**Western**: The topic of the content of the resource. What the content of the resource is about or what it is.
Best practices examined

- The **NINCH** Guide to Good Practice in the Digital Representation & Management of Cultural Heritage Materials
- Institute of Museum and Library Services Framework (**IMLS**)
- Computer Interchange of Museum Information (**CIMI**) Guide to Best Practice: Dublin Core
Metadata Standards Examined

- Colorado Digitization Project
- EAD – Encoded Archival Description
- GEM – Gateway to Educational Materials (US Dept. of Education)
- GILS – Global Information Locator Service
- IMLS (Institute of Museum and Library Services) Learning Resource Meta-data
- LOM – Learning Object Metadata (IEEE)
More Metadata Standards Examined

- MEG – Metadata for Education Group
- METS – Metadata Encoding & Transmission Standard (Library of Congress)
- MODS – Metadata Object Description Schema (Library of Congress)
- Open Archives Initiative
- SCORM – Sharable Content Object Reference Model (US Department of Defense)
Appeal of best practices and established standards

- Carry you into the future
- Allow for federated searching
- Define relationships
- Allow for diversity within guidelines
Why a set of formal guidelines?

- Inconsistent data quality and element interpretation across projects
- Customized schemes increasingly a burden on OhioLINK staff
Section 3: Building our core

- Application profiles
- Selecting a base schema
- Choosing a model
- The DMC Core
Application Profiles

What is an application profile?

- DCMI User Guide definition
- Simple or complex
- Spreadsheet or 100 page narrative
- An approach to metadata
Why use an AP?

... why not just adopt someone else’s guidelines?

- Customizes standards to accommodate local needs without compromising interoperability
- Documents decisions and standards used
- Provides guidance to contributors
- Reference tool
Who uses Application Profiles?

- Discipline or format based communities of practice
  - DC-Lib (Dublin Core Library Application Profile)
  - CANCORE (Canadian Core Learning Object Metadata Guidelines)
  - ViDE (Dublin Core Application Profile for Digital Video)

- Consortiums
  - Western States Dublin Core Metadata Best Practices
  - Canadian Culture Online
  - Open GIS Consortium

- Local project implementers
  - University of Washington
  - Oberlin College
  - Miami University
Selecting a base schema

... Why Dublin Core?

DMC content has:
- Multiple contributors
- Multiple formats
- Multiple disciplines
Selecting a base schema… cont’d

*DC was developed to provide:*

- Interoperability
- Extensibility
- Flexibility
Selecting a base schema… cont’d

- Other standards too narrow in scope for DMC content
- Recently accepted by ISO as an international standard
- Foundation of the Open Archives Initiative protocol for metadata harvesting (also an international standard)
- In common use by the digital library community
- A number of best practice documents already published
Choosing a Model

*Why use a model?*

- Western States
  - Based on Dublin Core
  - Multi-institutional
  - Comprehensive
  - User-friendly

Choosing a Model, cont.

Why not just copy the model?

- Western States is cultural heritage only
- Software-specific requirements
- Core fields may vary
The Core

What is “The Core?”

- Set of elements
- Group of attributes or properties of a resource
- A foundation from which local projects around the state will build collection specific metadata
Snapshot of Core Element Set

- Title
- Creator
- Contributor
- Date
- Description
- Subject
- Spatial Coverage
- Temporal Coverage

- Language
- Work Type
- Repository ID
- **Digital Publisher**
- Digital Creation Date
- Digitizing Equipment
- Asset Source
- Rights
Snapshot, cont.

- Collection Name
- OhioLINK Institution
- Asset Type
- OID (Object Identifier)
- Permissions
Element Specifications

- Element Name
- Definition
- Obligation
  - Mandatory, Required (if available), Optional
- Occurrence
  - Repeatable, Non-repeatable
Element Specifications, cont.

- Recommended Schemes
- Input Guidelines
  - General
  - Element-specific
- Examples
- Maps to DC Element
Why Input Guidelines?

- Broader audience
- Promote data consistency
- Anticipate questions
- Provide decision points
- Assist with data creation
- Reference external content standards
**Title**

**Definition:** A name given to a resource. Typically a title will be a name by which the resource is known. It may also be an identifying phrase or object name supplied by the holding institution.

**Obligation:** Mandatory

**Occurrence:** Non-Repeatable

**Recommended Schemes:** None.

**Input Guidelines:**
1. Identify and enter one Title element per record according to the guidelines that follow.
2. Transcribe title from the resource itself, such as book title, photograph caption, artist’s title, object name, etc., using same punctuation that appears on the source.
3. When no title is found on the resource itself, use a title assigned by the holding institution or found in reference sources. If title must be created, make the title as descriptive as possible, avoiding generic terms such as Papers or Annual report. Use punctuation appropriate for English writing.
4. When possible, exclude initial articles from title. Exceptions might include when the article is an essential part of the title or when local practice requires use of initial articles.
5. Capitalize only the first letter of the first word of the title and of any proper names contained within the title.
6. Consult established cataloging rules such as Anglo-American Cataloguing Rules (AACR2) or Archives, Personal Papers, and Manuscripts (APPM) for more information.

**Examples:**
1. Channel crew poling ice blocks
2. DH-4 battle plane and Wright Model C Flyer share air space
3. Exhibition flight over Lake Erie
4. Great Ballcourt

**Maps to DC Element:** Title
Section 4: Lessons Learned & Next Steps

Lessons Learned

Next Steps - from the DMC to the DRCO…

- New Metadata Issues for New Data Types
- New Metadata Tools
- New Cooperative Services
Lessons learned:

- Metadata universe is large and constantly changing
- Metadata can be as simple or as complex as desired
- Standards are still important!
- Standards don’t eliminate the need for local decisions
- It’s not necessary to reinvent the wheel
- Application profiles are important tools
- Best and worst thing about metadata is that it doesn’t come with content standards
- Library involvement in DMC projects is important
- Continued guidance from DMSC is important
- Having a cataloging background was very helpful!
- We need to remain flexible for the future
- This is an important first step, but it’s only the first step!
Possible next steps

- Metadata strategy document
- Extended element sets for various subject and/or format areas
- Coordinating body
- Metadata practice community
- Contributor’s discussion list
- MetaBuddy application
- Application profile repository
Recommended reading:


Contacts

Application Profile:
http://www.ohiolink.edu/media/dmcinfo/DMC_AP.pdf

Emily Hicks, Head of Bibliographic Management, University of Dayton
emily.hicks@notes.udayton.edu 937.229.1558

Jody Perkins, Metadata Librarian, Miami University Libraries
perkintj@muohio.edu 513.529.0135

Margaret Maurer, Cataloging Manager, Kent State University Libraries and Media Services
mmaurer@lms.kent.edu 330.672.1702
Parting quote:

"We must free ourselves of the hope that the sea will ever rest. We must learn to sail in high winds."

~Leif Smith