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

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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

		DMC LOCAL Collections as of September 2004			
Institution	Contributors	Collection	Type of Material	Number submitted	Status
OSU	Borror Lab of Bioacoustics	Borror Lab of Bioacoustics Recorded Animal Sounds	Audio - Recorded Animal Sounds	10,200	Will grow to 29,000
OSU	Ohio Agricultural Research and Development Center	Ohio Agricultural Experiment Station Forestry Image Collection	Images from glass-plate negatives	5,000	Approximately 400 to be added to complete
OSU	Center for Epigraphical Studies	Greek and Latin Squeezes (inscriptions)	Images of inscriptions	700	Will grow to more than 10,000 squeezes
UC	National Underground Freedom Center	William Seibert Collection	Documents and photographs	25	Thousands of documents and images will be added
UC	Design, Art, Architecture & Planning Library	Architecture of Cincinnati	Images from archival slides	300	Continues to grow as required
KSU	Department of Special Collections & Archives	Oral History Project: May 4, 1970 Collection. Residents of the community document their feelings on the shootings	Audio files	40	Cataloging underway

DMC Commercial Collections

	DMC COMMERCIAL COLLECTIONS as of September 2004		
Collection Name	Type of Material	Number of Items	Status
Encyclopedia of Physics Demonstrations	Short videos of lab experiments	600	Set complete
LANDSAT 7 Satellite Images of Ohio	Multi-layered satellite data		New images every 16 days, weather permitting
Sanborn Fire Insurance Maps	Images of large scale street plans of Ohio cities from 1867-1970	40,000	Closed set
Digital Video Collection	Long-playing educational videos	1,113 VHS tapes	Expands monthly. May expand to collections of other vendors
Saskia Collection	Art images used in art history classes	3,000	
AMICO Library	Images of art and archaeology objects held in museums across N America	100,000	Grows by 20,000 images each year

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

File   Edit   View   Favorites   Tools   Help

Back | Search | Favorites | Media

Address http://dmc.ohiolink.edu/media/ffhDetails?oid=2705892&&results=10&sort=title&searchstatus=1&hits=1&count=1   Go   Links »

OhioLINK Digital Media Center   Digital Video Collection

Quick search
(enter keywords below)

Search

Browse Subject
Browse Title

FAQ
Acceptable Use Policy
Help

Previous | Next

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

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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

To bookmark this page use: http://rave.ohiolink.edu/dmc/video/2705892

Internet

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OhioLINK Digital Media Center

Social Science Collections
Record Details

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 Temporal:	Classic Period (A.D. 300-900) - Postclassic Period (A.D. 900-1521)
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

Search Menu

Search List
Previous | Next

OhioLINK Home
Digital Media Center

Done   Internet

Start   Maurer, Marg...   Inbox - Outlo...   OCLC Bibliogr...   Full Records...   Microsoft Excel   Microsoft Po...   PSA for 1st r...   Document2 -   12:35 PM

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Back | Search   Favorites   Media

Address   http://dmc.ohiolink.edu/art/Details?oid=CAI_.1955.594&format=list&results=12&sort=title&searchstatus=1&hits=47&collection=all&searchmark=0&count=5   Go   Links »

OhioLINK Digital Media Center

Art & Architecture Database

Image record 5 of 47 is displayed.

Full View

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**
	Williamstown, Massachusetts, USA
Owner Credit:	**Clark Art Institute, Williamstown, MA**
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**

Search Menu

Search List
Previous | Next

OhioLINK Home
OhioLINK Digital
Media Center

To bookmark this page use: http://dmc.ohiolink.edu/art/Details?oid=CAI_.1955.594

Done   Internet

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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
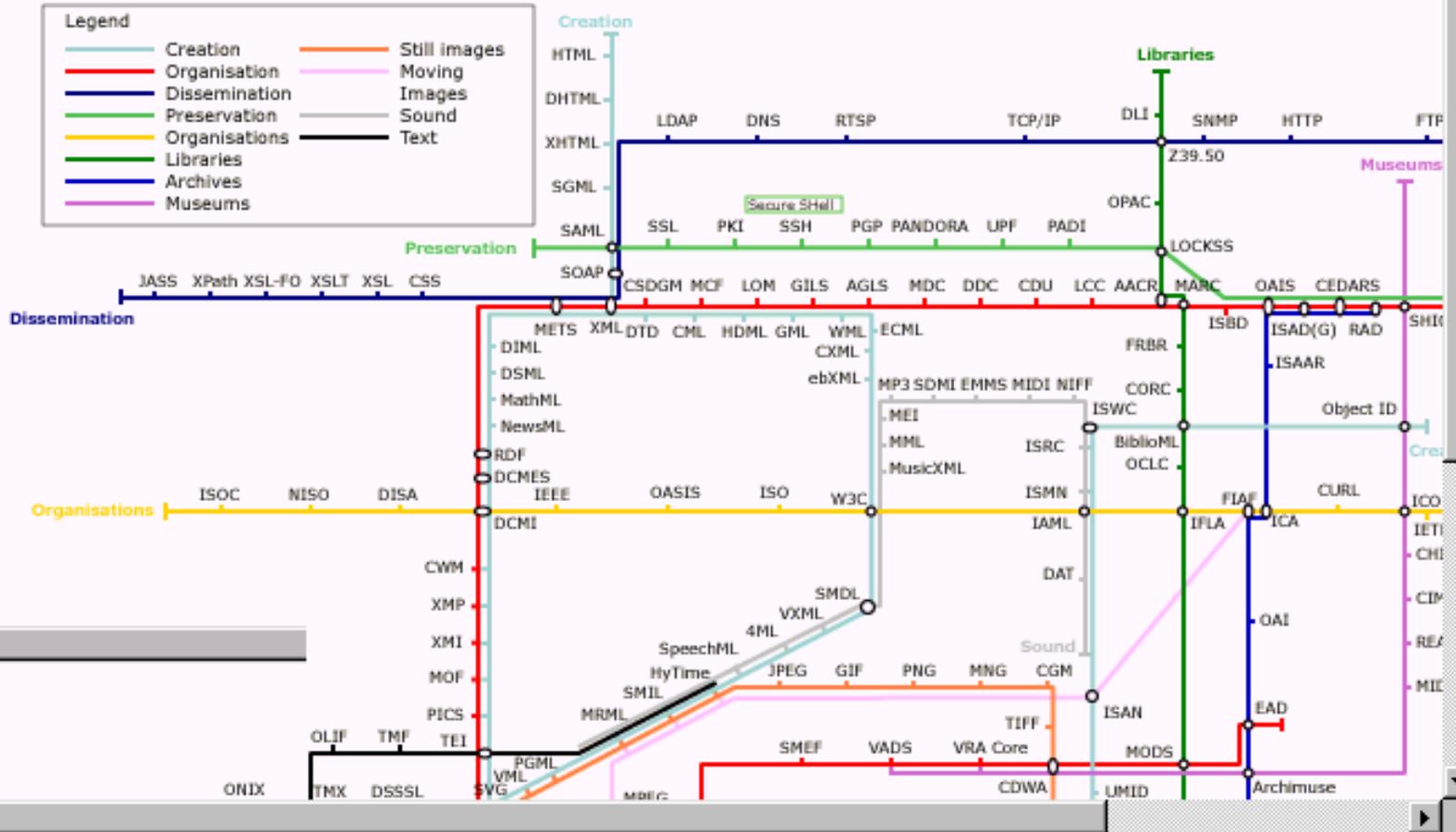 - Value of results unclear

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.

MetaMap

- What's the MetaMap for?
- What is metadata?
- How to use it
- Access to the map
- MetaMap with index
- Print the MetaMap
- FAQ
- Your comments
- About this site
- Home page

Legend

Creation	Still images
Organisation	Moving Images
Dissemination	Sound
Preservation	Text
Organisations	
Libraries	
Archives	
Museums	

Creation — Libraries — Museums — Preservation — Dissemination — Organisations — Sound — Creation

HTML, DHTML, XHTML, SGML, SAML, SOAP

LDAP, DNS, RTSP, TCP/IP, DLI, SNMP, HTTP, FTP

Z39.50

Secure SHell

SSL, PKI, SSH, PGP, PANDORA, UPF, PADI, OPAC, LOCKSS

JASS, XPath, XSL-FO, XSLT, XSL, CSS

CSDGM, MCF, LOM, GILS, AGLS, MDC, DDC, CDU, LCC, AACR, MARC, OAIS, CEDARS

METS, XML, DTD, CML, HDML, GML, WML, ECML, ISBD, ISAD(G), RAD, SHI

DIML, CXML, FRBR, ISAAR

DSML, ebXML, MP3, SDMI, EMMS, MIDI, NIFF, CORC, Object ID

MathML, ISWC

NewsML, MEI, MML, ISRC, BiblioML, OCLC

RDF, MusicXML, ISMN, FIAF, CURL, ICO

DCMES, IEEE, OASIS, ISO, W3C, IAML, IFLA, ICA, IET

ISOC, NISO, DISA, DCMI, DAT, CHI

CWM, SMDL, CIM

XMP, VXML, OAI

XMI, 4ML, REA

MOF, SpeechML, HyTime, JPEG, GIF, PNG, MNG, CGM, ISAN, EAD, MI

PICS, SMIL, MRML, TIFF

OLIF, TMF, TEI, PGML, SMEF, VADS, VRA Core, MODS, Archimuse

ONIX, TMX, DSSSL, VML, SVG, MPEG, CDWA, UMID

Organisations

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Beginning to define the DMC core

WESTERN STATES CORE	DUBLIN CORE	OhioLINK DMC DMC FIELD NAME	OhioLINK CARDI-NALITY	OhioLINK REQUIRED?	DEFINITION / NOTES / PROBLEMS
Title	Title	Title	1:1 or M:1?	Mandatory	**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; may also be identifying phrase or name of the object supplied by the holding institution. Mandatory. Repeatable. M:1 **OhioLINK:**
Title Alternative					Refinement. Western States doesn't define when to use this versus Title.
Creator	Creator	Creator	M:1	Required	**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 making the content of the resource. Person or 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 specifens or artifacts; organizations that generate archival collections; etc. Mandatory if available. Repeatable. M:1 **OhioLINK:**
Subject	Subject	Subject			**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
  http://www.cdpheritage.org/resource/metadata/wsdcmbp/index.html
  - 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:

- *Metadata Principles and Practicalities.* Erik Duval, Wayne Hodgins, Stuart Sutton, and Stuart L. Weibel. D-Lib Magazine, April 2002. http://www.dlib.org/dlib/april02/weibel/04weibel.html

- *Keeping Dublin Core Simple: Cross-Domain Discovery or Resource Description?* Carl Lagoze. D-Lib Magazine, January 2001. http://www.dlib.org/dlib/january01/lagoze/01lagoze.html

- *Application profiles: mixing and matching metadata schemas.* Rachel Heery and Manjula Patel. Ariadne Issue 25, 24-Sep-2000. http://www.ariadne.ac.uk /issue25/app-profiles/intro.html

Contacts

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

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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