

Metadata Standards

DC, METS, MODES, EAD

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Metadata Standards

- Metadata is structured information that describes, explains, locates, or otherwise makes it easier to retrieve, use, or manage an information resource.
- Metadata is often called data about data or information about information.
- Metadata is key to ensuring that resources will survive and continue to be accessible into the future.

Types of Metadata

- **Descriptive metadata** describes a resource for purposes such as discovery and identification. It can include elements such as title, abstract, author, and keywords.
- **Structural metadata** indicates how compound objects are put together, for example, how pages are ordered to form chapters.
- **Administrative metadata** provides information to help manage a resource, such as when and how it was created, file type and other technical information, and who can access it.
 - **Rights management metadata**, which deals with intellectual property rights,
 - **Preservation metadata**, which contains information needed to archive and preserve a resource

What Does Metadata Do?

- Resource Discovery
 - Allowing resources to be found by relevant criteria;
 - Identifying resources;
 - Bringing similar resources together;
 - Distinguishing dissimilar resources; and
 - Giving location information
- Organizing Electronic Resources
- Interoperability
- Digital Identification
- Archiving and Preservation

Metadata Schemes and Element Sets

- Metadata **schemes** (also called **schema**) are sets of metadata elements designed for a specific purpose, such as describing a particular type of information resource.
 - Dublin Core
 - The Text Encoding Initiative (TEI)
 - Metadata Encoding and Transmission Standard (METS)
 - Metadata Object Description Schema (MODS)
 - The Encoded Archival Description (EAD)
 - Learning Object Metadata
 - E-Commerce – and ONIX
 - Visual Objects – CDWA and VRA
 - MPEG Multimedia Metadata

Dublin Core

- Discussions at a 1995 workshop sponsored by **OCLC** and the National Center for Supercomputing Applications (**NCSA**).
- As the workshop was held in **Dublin, Ohio**, the element set was named the Dublin Core.
- Dublin Core and related specifications is managed by the **Dublin Core Metadata Initiative (DCMI)**.
- Original objective - to define a set of elements that could be used **by authors** to describe their own Web resources.
- Goal was to define a few elements and some simple rules that could be applied by noncatalogers.
- Original **13 core elements** were later increased to 15

Dublin Core Elements

Dublin Core Elements

Rights	Contributor	Creator
Subject	Coverage	Title
Publisher	Identifier	Description
Type	Date	Source
Relation	Format	Language

Dublin Core Example

Title="Metadata Demystified"

Creator="Brand, Amy"

Creator="Daly, Frank"

Creator="Meyers, Barbara"

Subject="metadata"

Description="Presents an overview of metadata conventions in publishing."

Publisher="NISO Press"

Publisher="The Sheridan Press"

Date="2003-07"

Type="Text"

Format="application/pdf"

Identifier=http://www.niso.org/standards/resources/Metadata_Demystified.pdf

Language="en"

Metadata Encoding and Transmission Standard (METS)

- Metadata standard for encoding **Descriptive, Administrative, and Structural metadata** regarding objects within a **Digital Library**.
- Expressed using the **XML** schema language of the World Wide Web Consortium (W3C).
- The standard is maintained as part of the **MARC standards** of the **Library of Congress**
- It is being developed as an initiative of the **Digital Library Federation (DLF)**.
- **The 7 sections of a METS document**
 - METS header, Descriptive Metadata, Administrative Metadata,
 - File Section, Structural Map, Structural Links, Behavioral Section

METS Sections

1. **Header section.** This section can contain condensed descriptive metadata about the resource. `< metsHdr />`
2. **Descriptive Metadata section.** This section contains metadata that describes the resource itself, such as the title and author. `< dmdSec />`
3. **Administrative Metadata section.** This section contains four types of administrative metadata: technical metadata, intellectual property rights metadata, source metadata, and digital provenance metadata. `< amdSec />`
4. **File Section.** This section contains a list of the files that make up the electronic version of the resource. `< fileSec />`
5. **Structural Map section.** This section contains a description of the hierarchical organization of the source document. `< structMap />`
6. **Structural Link section.** This section describes links within the structural map. `< structLink />`
7. **Behavior Section.** This section associates executable behaviors with the resource content. `< behaviorec />`

Metadata Object Description Schema (MODS)

- **Library of Congress** developed MODS to capture more data than Dublin Core and be less complex and more user-friendly than MARC format.
- MODS was first announced in June 2002.
- A descriptive metadata schema that is a **derivative of MARC21** and intended to either carry selected data from existing MARC21 records or enable the creation of original resource description records.
- Includes a subset of MARC fields and uses language based tags rather than the numeric ones used in MARC 21 records.
- In some cases, it regroups elements from the MARC 21 bibliographic format.
- Like METS, MODS is expressed using the XML schema language.

Encoded Archival Description (EAD)

- A nonproprietary encoding standard for machine-readable finding aids such as inventories, registers, indexes, and other documents created by archives, libraries, museums, and manuscript repositories to support the use of their holdings – LOC
- Finding aids are used not only to store metadata, but to help find resources.

Courtesy: <http://pages.cs.wisc.edu/~caden/projects/Choosing%20a%20Metadata%20Type--Partial%20Draft.pdf>

Further Reading

- https://www.lter.uaf.edu/metadata_files/UnderstandingMetadata.pdf
- <http://pages.cs.wisc.edu/~caden/projects/Choosing%20a%20Metadata%20Type--Partial%20Draft.pdf>