Metadata

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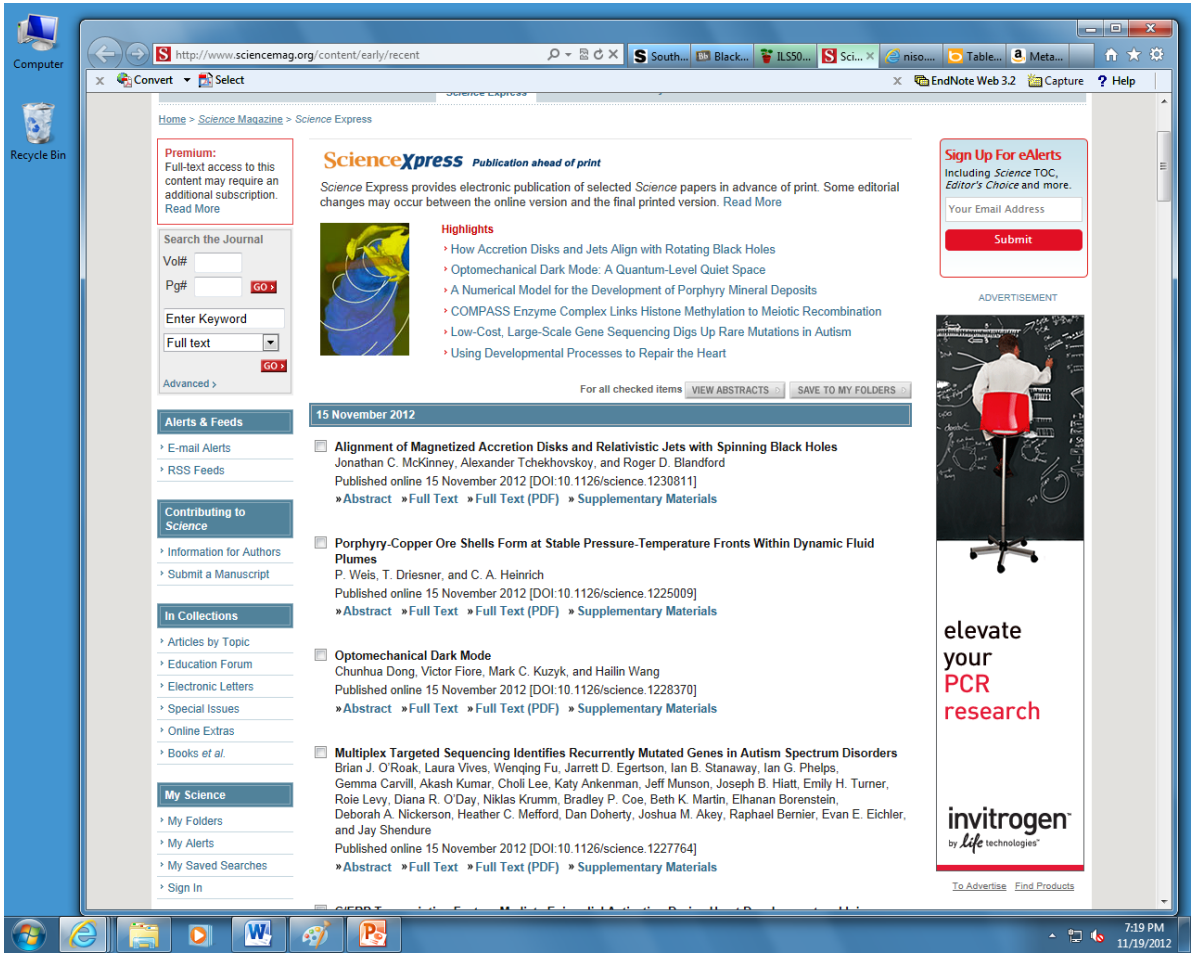
What is Metadata?

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.

- Structured information
- Used to describe, locate, or explain and make it easier to find, use, or manage a source of information
- Data about data or information about information

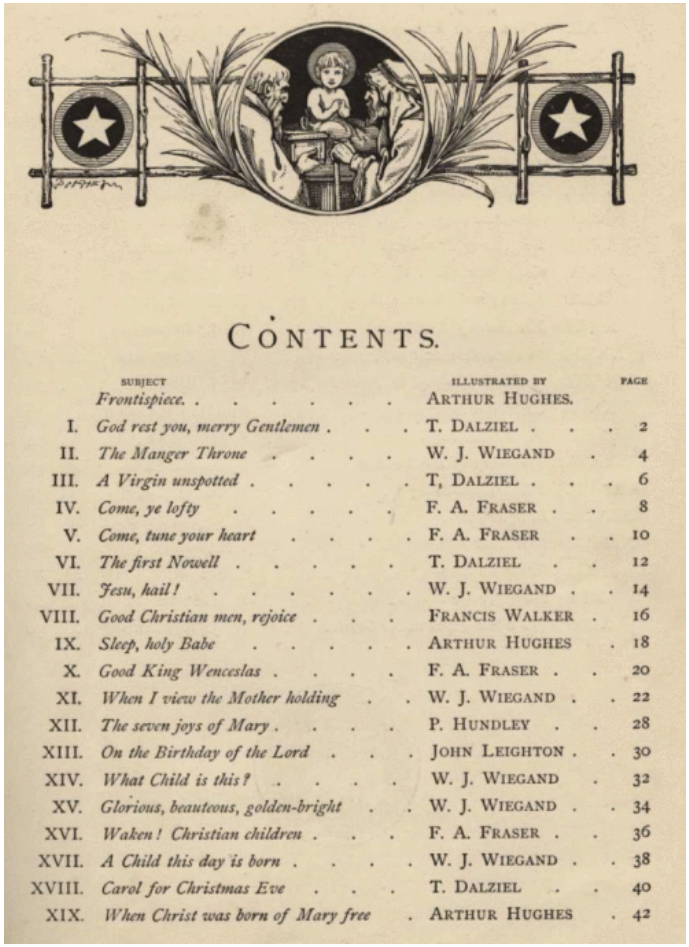
Descriptive



Descriptive Metadata

- Describes a resource
- Used for discovery or identification of information
- It may include elements; for example, title, abstract, author, and keywords

Structural



CONTENTS.

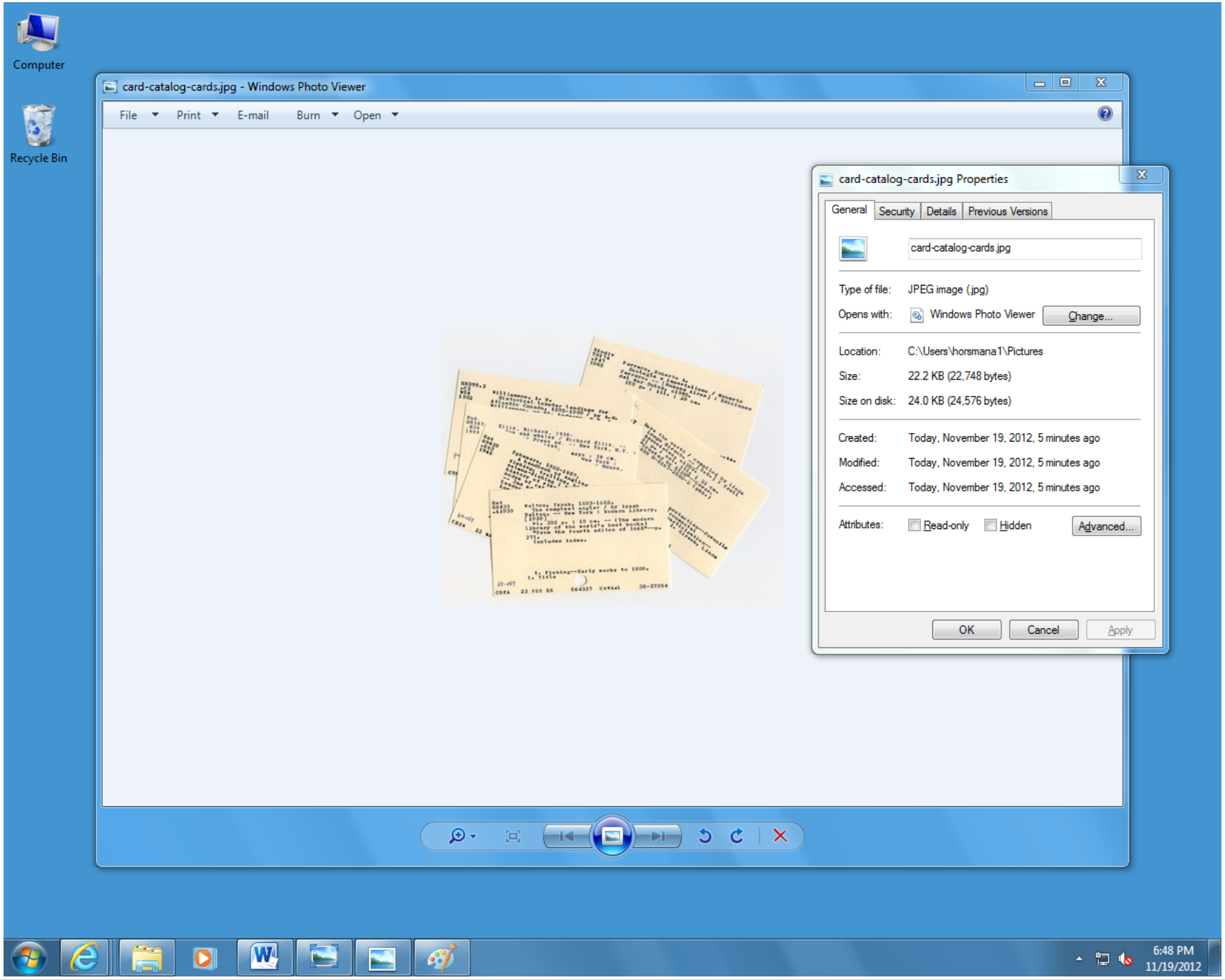
	SUBJECT	ILLUSTRATED BY	PAGE
	Frontispiece.	ARTHUR HUGHES.	
I.	*God rest you, merry Gentlemen*	T. DALZIEL	2
II.	*The Manger Throne*	W. J. WIEGAND	4
III.	*A Virgin unspotted*	T. DALZIEL	6
IV.	*Come, ye lofty*	F. A. FRASER	8
V.	*Come, tune your heart*	F. A. FRASER	10
VI.	*The first Nowell*	T. DALZIEL	12
VII.	*Jesu, hail!*	W. J. WIEGAND	14
VIII.	*Good Christian men, rejoice*	FRANCIS WALKER	16
IX.	*Sleep, holy Babe*	ARTHUR HUGHES	18
X.	*Good King Wenceslas*	F. A. FRASER	20
XI.	*When I view the Mother holding*	W. J. WIEGAND	22
XII.	*The seven joys of Mary*	P. HUNDLEY	28
XIII.	*On the Birthday of the Lord*	JOHN LEIGHTON	30
XIV.	*What Child is this?*	W. J. WIEGAND	32
XV.	*Glorious, beauteous, golden-bright*	W. J. WIEGAND	34
XVI.	*Waken! Christian children*	F. A. FRASER	36
XVII.	*A Child this day is born*	W. J. WIEGAND	38
XVIII.	*Carol for Christmas Eve*	T. DALZIEL	40
XIX.	*When Christ was born of Mary free*	ARTHUR HUGHES	42

Structural metadata indicates how compound objects are put together, for example, how pages are ordered to form chapters.

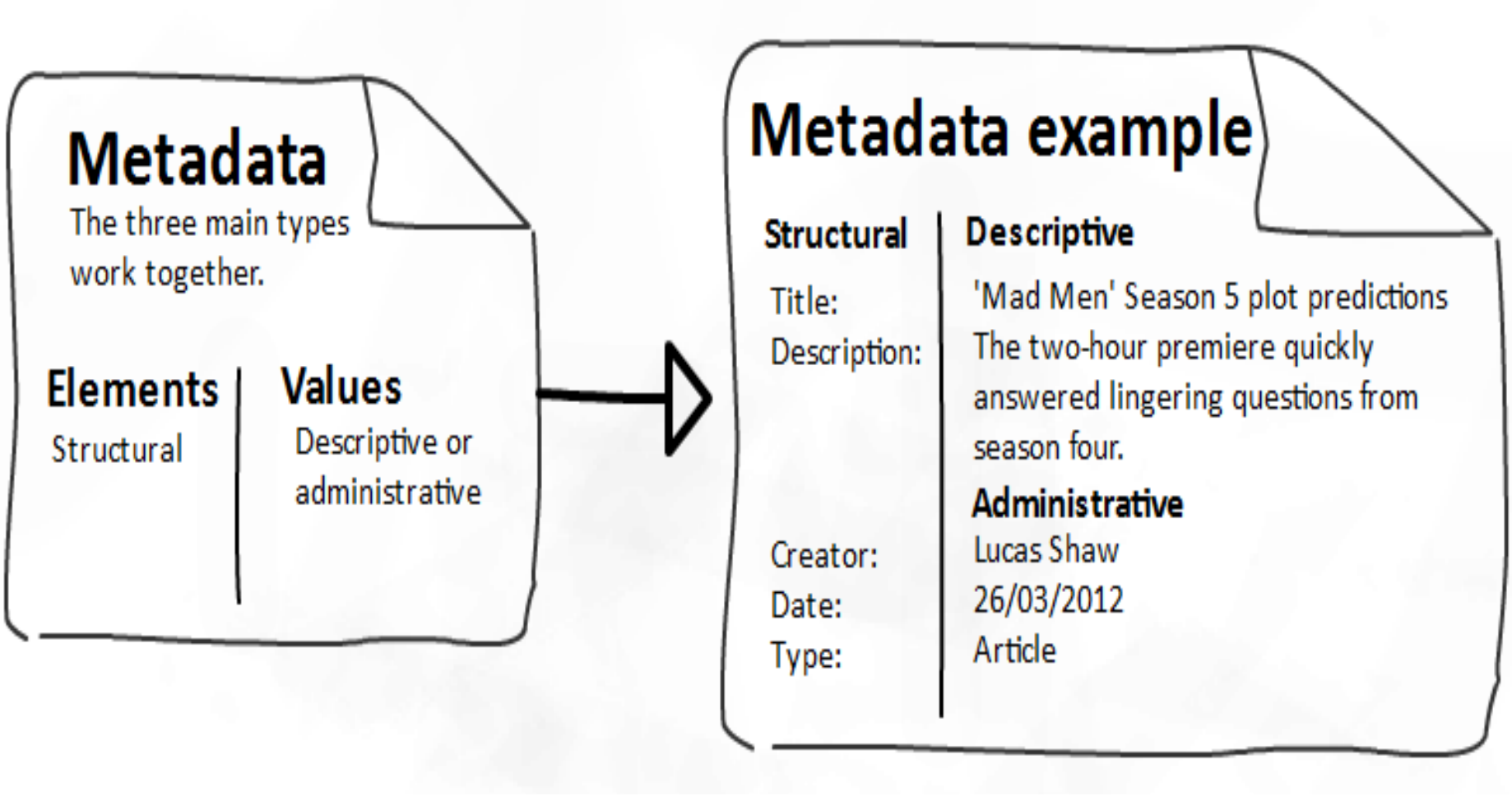
- Shows how compound objects are put together.
- Examples: chapter order, page numbers, table of contents
- Often, structural metadata is used to describe the intellectual or physical elements of a digital object.

Administrative Metadata

- *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.
- Information to help manage a resource
- May show how it was created, the date it was created, and the type of file (for example, a JPG file or DOC file).
- Mostly refers to technical information, and who has access to it.
- 2 SUBSETS
  - Rights Management Metadata: intellectual property rights
  - Preservation Metadata: contains information needed to archive and preserve a resource


Computer
Recycle Bin
card-catalog-cards.jpg - Windows Photo Viewer
File
Print
E-mail
Burn
Open
card-catalog-cards.jpg Properties
General
Security
Details
Previous Versions
card-catalog-cards.jpg
Type of file: JPEG image (.jpg)
Opens with: Windows Photo Viewer
Change...
Location: C:\Users\horsmana1\Pictures
Size: 22.2 KB (22,748 bytes)
Size on disk: 24.0 KB (24,576 bytes)
Created: Today, November 19, 2012, 5 minutes ago
Modified: Today, November 19, 2012, 5 minutes ago
Accessed: Today, November 19, 2012, 5 minutes ago
Attributes: Read-only Hidden
Advanced...
OK
Cancel
Apply
6:48 PM
11/19/2012

3 Metadata Types Together



What Does Metadata Do?

An important reason for creating descriptive metadata is to facilitate discovery of relevant information. In addition to resource discovery, metadata can help organize electronic resources, facilitate interoperability and legacy resource integration, provide digital identification, and support archiving and preservation.

Organizing Electronic Resources

Such lists can be built as static webpages, with the names and locations of the resources "hardcoded" in the HTML.

Digital metadata is used to find the document after it's been placed into a digital collection. This makes digitization of documents much easier and allows for the preservation of materials much later in the document's timeline.

Interoperability

Describing a resource with metadata allows it to be understood by both humans and machines in ways that promote interoperability.

Interoperability is the ability of multiple systems with different hardware and software platforms, data structures, and interfaces to exchange data with minimal loss of content and functionality. Using defined metadata schemes, shared transfer protocols, and crosswalks between schemes, resources across the network can be searched more seamlessly.

Digital Identification

Most metadata schemes include elements such as standard numbers to uniquely identify the work or object to which the metadata refers. The location of a digital object may also be given using a file name, URL (Uniform Resource Locator), or some more persistent identifier such as a PURL (Persistent URL) or DOI (Digital Object Identifier). Persistent identifiers are preferred because object locations often change, making the standard URL (and therefore the metadata record) invalid. In addition to the actual elements that point to the object, the metadata can be combined to act as a set of identifying data, differentiating one object from another for validation purposes.

Archiving and Preservation

Digital information is fragile; it can be corrupted or altered, intentionally or unintentionally. It may become unusable as storage media and hardware and software technologies change. Metadata is key to ensuring that resources will survive and continue to be accessible into the future. Archiving and preservation tracks the lineage of a digital object, to detail its physical characteristics, and to document its behavior in order to emulate it on future technologies.

Metadata Schemes

- Dublin Core
- Text Encoding Initiative
- Metadata Encoding and Transmission Standard
- Metadata Object Description Schema

What is Metadata Scheme?

- A logical grouping of Metadata attributes that eases the administration of attributes and the data entry for end users.

Dublin Core

15 Core Elements

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

- Named after Dublin, Ohio.
- Created to help authors to describe their own web resources.
- Just to make it easier for non users.

MARC 21

- MARC 21 was recently changed to MODs Scheme (a mix of MARC 21 and Dublin Core).
- This change happened since the MARC 21 system is very outdated and less user friendly.
- The title, for example can be expressed in both the Dublin Core (which is simply expressed as “title”) and MARC 21 (expressed as “245 00$a”), where the title is the same for both.

Text Encoding Initiative (TEI)

- A project to develop guidelines for marking up electronic texts including novels, plays, and poetry.
- Primarily to support research in the humanities and linguistics.
- Used in libraries, museums, and publishers.

Metadata Encoding and Transmission Standard (METS)

- Developed to fill the need for a standard data structure for describing complex digital library objects.
- Basically an XML schema for creating XML document instances that express the structure of digital library objects.
- Like a map.

METS Contains 7 major sections

- METS Header
- Descriptive Metadata
- Administrative Metadata
- File Section
- Structural Map
- Structural Links
- Behavior

Metadata in the Library

- In the library, metadata is used for any formal resource description
- It applies to any type of information, whether it be digital or non-digital
- Example: traditional library card catalogues

Metadata Object Description Schema

- Descriptive metadata schema that is a MARC21 and proposed to carry selected data from MARC21 records or enable to create original resource records.
- MODS also is expressed using XML schema language.