METADATA

Dr. P.S. Rajput

What is Metadata?

- Metadata is "data about data".

- In the context of bibliographic information systems, it is the author, title, place publisher, subject code, subject heading, etc., for book.

- In the case of serials, it is the title, publisher, ISSN etc. In case of a bank account it is name, address, signature, etc.

Definitions

National Information Standards Organization (2004) defines "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 structured, encoded data that describe characteristics of information-bearing entities to aid in the identification, discovery, assessment, and management of the described entities". (Hode, 2001)

The term "metadata" commonly refers to any data that aids in the identification, description and location of networked electronic resources.

Need of Metadata

Metadata is a systematic method for describing resources and thereby improving access to them. The primary aim of metadata is to improve resources discovery.

☐ Resource documentation

☐ Resource selection, evaluation and assessment

☐ Resource identification and location

☐ Improving the quality and quantity of search result

☐ Electronic commerce to encode prices, term of pay, etc.

☐ Protecting instinctual property rights

☐ Efficient content development and archiving

Types of Metadata

- *Descriptive metadata:* Include the creator of the resource, its title, subject heading and other elements that will be used to search and locate the items.

- *Structural metadata:* Describe how an item is structured, for examples if it is an electronic book composed of scanned pages, each of which is a separate computer image file.

- *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:* This is deals with intellectual property rights

- *Preservation metadata*: It is contains information needed to archive and preserve a resource.

Functions

□ Metadata used in managing and administering information resources

Acquisition information

Rights and reproduction tracking

Documentation of legal access requirements

Location information

Selection criteria for digitization

Version control and differentiation between similar information objects

Audit trails created by record keeping systems

Cont…

□ Metadata used to describe or identify information resources

Cataloguing records
Finding aids
Specialized indexes
Hyperlinked relationships between resources Annotations by users
Metadata for record keeping systems generated by records creators

Cont…

- Metadata related to the preservation management of information resources

    Documentation of physical condition of resources

    Documentation of actions taken to preserve   physical and digital   versions of

    resources, e.g., data refreshing and migration

- Metadata related to how a system functions or metadata behave

    Hardware and software documentation Digitization information, e.g., formats,

    compression ratios, scaling routines

    Tracking of system response times

    Authentication and security data, e.g., encryption keys, passwords

Cont…

- Metadata related to the level and type of use of information resources

  Exhibit records
  Use and user tracking
  Content re-use and multi-versioning information.

Others:

- Resource discovery
- Organizing e-resources
- Facilitating interoperability
- Digital identification
- Archiving and preservation

Metadata Standards

Some of the metadata standards available are MARC, MARC21, Dublin Core, UK MARC (now transformed to marc21), etc. MARC21 is the latest standards in term of metadata. The first level metadata elements of MARC are:

- Leader and Directory
- Control Fields 001-008
- Number and Code Fields (01X-04X)
- Classification and Call Number Fields (05X-08X)
- Main Entry Fields (1XX)
- Title and Title-Related Fields (20X-24X)
- Edition, Imprint, etc. Fields (250-270)
- Physical Description, etc. Fields (3XX)
- Series Statement Fields (4XX)
- Note Fields: Part 1 (50X-53X)
- Note Fields: Part 2 (53X-58X)
- Subject Access Fields (6XX)
- Added Entry Fields (70X-75X)
- Linking Entry Fields (76X-78X)
- Series Added Entry Fields (80X-830)
- Holdings, Location, Alternate Graphics, etc. Fields (841-88X)

Dublin Core

DC (Dublin Core) is remarkably different from other metadata standards because of its simplicity, easy to use and interpretability. The DC Metadata Initiatives (DCMI), an international community supported by OCLC, has led to the development of metadata components that enhance cross-disciplinary resource discovery. The mission of DCMI is to develop an easy mechanism for searching and indexing web resources.

The core element set of DC metadata are as follows:

- Title- title of resources
- Creator   - author
- Subject   - subject, keyword
- Description-table of content, abstract
- Publisher- person/institute
- Contributor-contributing person/ institute
- Date- date
- Type- nature of content

Format- physical or digital
Identifier- URL, ISBN, etc
Source- journal article collection, etc.
Language- language of resource
Relation- relationship to other works
Coverage- geographic/temporal coverage
Right- copyright date, etc.

Thanks