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The DSpace Course - An Introduction to Metadata in DSpace

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Module: An introduction to metadata in DSpace

Module overview:
This module will introduce the concept of metadata, and why it is used. Following that, the metadata support in DSpace will be explained along with how metadata is encoded and stored.

The metadata registry which holds the metadata will be shown, and the out-of-the-box metadata schema will be examined. Finally the module will show how to add a new metadata schema, along with a practical exercise to add a new term to the Dublin core scheme included with DSpace.

Module objectives:
By the end of this module you will:

1. Understand the purpose of metadata
2. Know how DSpace encodes and stores metadata
3. Know how the metadata registry works, and how to edit a metadata schema
4. Have added a new term to an existing metadata schema
What’s metadata?

- From Wikipedia:
  - Metadata is “data about data”, of any sort in any media. An item of metadata may describe an individual datum, or content item, or a collection of data including multiple content items.
  - Metadata (sometimes written ‘meta data’) are used to facilitate the understanding, characteristics, and management usage of data. The metadata required for effective data management varies with the type of data and context of use. In a library, where the data are the content of the titles stocked, metadata about a title would typically include a description of the content, the author, the publication date and the physical location.
  - In the context of a camera, where the data are the photographic image, metadata would typically include the date the photograph was taken and details of the camera settings (lens, focal length, aperture, shutter timing, white balance, etc.). On a portable music player such as an iPod, the album names, song titles and album art embedded in the music files are used to generate the artist and song listings, and are considered the metadata.
  - In the context of an information system, where the data are the content of the computer files, metadata about an individual data item would typically include the name of the field and its length. Metadata about a collection of data items, a computer file, might typically include the name of the file, the type of file and the name of the data administrator.

http://en.wikipedia.org/wiki/Metadata

What is metadata

Metadata is used to describe things. In DSpace metadata is used to describe the items that it holds. Metadata can apply at different levels:

- Communities have metadata describing them
- Collections have metadata describing them
- Items have metadata describing them
- Bitstreams have metadata describing them
Types of metadata

The are two broad types of metadata

1. Descriptive metadata
   - Descriptive metadata describes attributes of an object, such as its name, its creator, or its size.

2. Administrative metadata
   - Administrative metadata helps with the administration of an object. Examples include the location of the object or the name of the user who created the metadata about the object.
Encoding metadata

- Metadata is encoded using *metadata schemas*
- DSpace uses Dublin Core by default
  - Schema = ‘dc’
  - Qualified Dublin Core
  - Elements
    - E.g. Title / Creator / Subject / Description
  - Qualifiers
    - E.g. Title.main / Title.subtitle / Title.series
    - E.g. dc.identifier.citation

Dublin Core

DSpace is installed and configured to use the Dublin Core metadata schema by default. Dublin core is made up of elements, and qualifiers. There are 15 base elements:

1. Title
2. Creator
3. Subject
4. Description
5. Publisher
6. Contributor
7. Date
8. Type
9. Format
10. Identifier
11. Source
12. Language
13. Relation
14. Coverage
15. Rights

The elements can be refined through the use of qualifiers.
The metadata registry

- Multiple schemas can be held in the metadata registry
  - Access via Administer menu -> Metadata Registry

**Metadata Schema Registry**

<table>
<thead>
<tr>
<th>ID</th>
<th>Namespace</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a></td>
<td>dc</td>
</tr>
</tbody>
</table>

Create a new schema by entering a namespace/name or edit an existing one by clicking the update button. The schema name must be less than 32 characters and cannot include spaces, periods or underscores.

- Namespace: 
- Name:  
- Save

The metadata registry

The metadata registry is accessed via the ‘Administrate’ menu, by selecting the ‘Metadata Registry’ link. By default Dublin Core (dc) is included. New schemas can be added from the main registry screen.
Editing a metadata schema

Elements can be updated, removed or added:

- Current elements can be edited and submitted using the ‘Update’ button.
- Elements can be deleted by using the ‘Delete’ button next to an element.
- New elements can be added using the ‘Add Metadata Field’ section at the bottom of the page. The qualifier is optional.
Credits

- These notes have been produced by:
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