



**Draft for Public Comment and Review**  
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**Digital Library Federation**  
**MODS Implementation**  
**Guidelines for Cultural Heritage Materials**

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# DLF MODS Implementation Guidelines for Cultural Heritage Materials

## Introduction

The primary goal of the Digital Library Federation's Aquifer Initiative is to enable distributed content to be used effectively by libraries and scholars for teaching, learning, and research. The provision of rich, shareable metadata for this distributed content is an important step towards this goal.

To this end, the Metadata Working Group of the DLF Aquifer Initiative has developed a set of implementation guidelines of the Metadata Object Description Schema<sup>1</sup> (MODS) specifically for use in describing digital cultural heritage and humanities-based scholarly resources that are to be shared within the Aquifer Initiative and wider.

The authors of the implementation guidelines are aware that the requirements and recommendations set forth here are not currently met by most current and potential Aquifer participants. However, we developed these as a set of guidelines for creating rich, shareable metadata that is coherent and consistent, and, thus, useful to aggregators and end users. We hope that these guidelines will provide a best practice to build to as institutions both within and outside of the Digital Library Federation implement MODS in their digital environments and share these records with others.

The joint DLF and NSDL *Best Practices for Shareable Metadata*<sup>2</sup> document provides overall guidance on the 'shareability' of the metadata. We recommend that metadata authors be familiar with those best practices in addition to the implementation guidelines presented here.

Other guiding principles and conditions that have informed the DLF MODS Implementation Guidelines are:

- They are currently based on the MODS Schema version 3.1.
- The resources to be described are digital (either born digital or digitized from analog originals) cultural heritage and humanities-based materials in keeping with the Aquifer collection focus on American life and culture.
- Because of the inherent difficulties in describing a digital object that has an analog original, the implementation guidelines clarify as much as possible what should be described where and why. In general, the guidelines distinguish between description of the intellectual content and genre of a resource and its digital format and location. The guidelines also recommend making use of the <relatedItem> element to further describe the analog original of a digital object.
- The guidelines are specifically meant for metadata that will be shared with others (whether through the Open Archives Initiative Protocol for Metadata Harvesting

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<sup>1</sup> <http://www.loc.gov/standards/mods/>

<sup>2</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?PublicTOC>

(OAI-PMH) or some other means), and, as such, is focused on how to author metadata that will make sense and be useful outside of its local context.

- Because the first phase of the Aquifer Initiative is focused on using the OAI PMH to aggregate metadata, suggested mappings from MODS to simple Dublin Core have been provided. However, this is only to assist participants in meeting the simple Dublin Core requirement of the OAI protocol, and is not a recommendation to provide simple Dublin Core as the primary metadata format.

Included in these guidelines are a general overview of its requirements and recommendations, advice concerning the attributes common to all MODS elements, discussions of each element in the MODS 3.1 Schema, and seven full examples of MODS records that meet these guidelines. Each element discussion includes:

- A summary of the guidelines requirements;
- The element definition from the MODS User Guidelines<sup>3</sup>;
- A discussion of usage, including requirements and recommendations for the element, subelements, and attributes (except those that are common to all MODS elements);
- Example(s) of the elements that illustrate, at minimum, usage required by the guidelines;
- Suggested mappings to simple Dublin Core; and
- Reference to further discussion, if any, in the *Best Practices for Shareable Metadata* document.

The members of the Aquifer Metadata Working Group are:

- John Chapman (University of Minnesota)
- Bill Landis (California Digital Library)
- Elizabeth Milewicz (Emory University)
- David Reynolds (Johns Hopkins University)
- Jenn Riley (Indiana University)
- Gary Shawver (New York University)
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<sup>3</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide.html>

## DLF MODS Implementation Guidelines

### Summary of Requirements

Element	Required	Subelement(s) / Attribute required	Repeatable	Content Controlled
<titleInfo>	Yes	- One <title> subelement	Yes	No
<name>	No	N/A	Yes	No
<typeOfResource>	Yes	No	Yes	Yes (see guidelines)
<genre>	Yes	No	Yes	Recommended authority attribute limits content
<originInfo>	Yes	- At least one date subelement must have attribute keyDate="yes"	Yes	Recommended encoding attribute limits content
<language>	Yes, if language primary to resource	- Subelement <languageTerm> - type attribute required	Yes	Required attribute type="code" limits content
<physicalDescription>	Yes	- One subelement <digitalOrigin> - At least one subelement <internetMediaType>	No	Yes (see guidelines)
<abstract>	No	N/A	Yes	No
<tableOfContents>	No	N/A	Yes	No

<targetAudience>	No	N/A	Yes	Recommended authority attribute limits content
<note>	No	N/A	Yes	No
<subject>	Yes, if applicable	No	Yes	Recommended authority attribute limits content
<classification>	No	No	Yes	Recommended authority attribute limits content
<relatedItem>	No	No	Yes	In some cases (see guidelines)
<identifier>	Yes	- type attribute required	Yes	Required type attribute limits content
<location>	Yes	- Subelement <url> is required for one and only one <location> element	<location> <url> is not repeatable	Yes
<accessCondition>	Yes	- Must use attribute type="use and reproduction"	No	No
<part>	No	No	Yes	No
<extension>*	No	N/A	N/A	N/A
<recordInfo>	Yes	- Subelement <languageOfCataloging> is required.	No	Required authority attribute limits content in some subelements

\*Not recommended for use.

## <titleInfo>

MODS Element	Subelements
<titleInfo>	<title> <subTitle> <partNumber> <partName> <nonSort>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use in all records of at least one <titleInfo> element with one <title> subelement. Other subelements of <titleInfo> are recommended when they apply. This element is repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>4</sup>

"titleInfo" is a wrapper element that contains all subelements related to title information.

## DISCUSSION OF USE

Titles are an extremely important access point for digital library resources, and are frequently used in brief record displays to assist end-users in deciding whether to investigate a resource further. As such, at least one <titleInfo><title> element is required by these guidelines. Additional <titleInfo> elements should be used to indicate other titles for the resource. Do not include punctuation intended to delineate parts of titles separated into subelements of <titleInfo>.

Choice and format of titles should be governed by a content standard such as the *Anglo-American Cataloging Rules*, 2<sup>nd</sup> edition (AACR2) or *Describing Archives: A Content Standard* (DACS). Details such as capitalization, choosing among the forms of titles presented on an item, and use of abbreviations should be determined based on the rules in a content standard. One standard should be chosen and used consistently for all records in an OAI set.

When no title appears on the item being described, a title should be supplied. The guidelines recommend *against* the use of brackets or other punctuation to indicate the title has been supplied rather than appearing on the item. In supplying a title, consider expectations of end-users for naming of resources. Follow the rules of the chosen content standard for the construction of the supplied title.

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<sup>4</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

## **Attributes:**

All attributes are applied to the `<titleInfo>` element; none are used on any subelements.

### **`type` [RECOMMENDED IF APPLICABLE]**

For the primary title of the resource, do not use the `type` attribute. For all additional titles, the DLF MODS Implementation Guidelines recommend using this attribute to indicate the type of the title being recorded. Allowed values are:

- abbreviated
- translated
- alternative
- uniform

### **`authority` [RECOMMENDED IF APPLICABLE]**

The `authority` attribute is used to indicate if the title given is controlled by a record in an authority file. The authority files sanctioned for this use in MODS are referred to as name authority files; however, these files also include name-title entries that can be used as a source for controlled title values. The guidelines recommend the use of authoritative titles and the `authority` attribute whenever possible. Allowed values are:

- `naf` (NACO authority file)
- `sanb` (South African national bibliography authority file)

### **`displayLabel` [RECOMMENDED]**

The guidelines recommend using the `displayLabel` attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

## **Subelements:**

### **`<title>` [REQUIRED]**

The `<title>` element contains the core title of the resource. At least one `<titleInfo><title>` is required by these guidelines. This element includes all parts of a title not covered by other sub-elements of `<titleInfo>`.

### **`<subTitle>` [RECOMMENDED IF APPLICABLE]**

The `<subTitle>` element is used to record a part of a title deemed secondary to the core portion. The guidelines recommend the use of this element when a subtitle is present, rather than including the subtitle in the text of the `<title>` element. When using the `<subTitle>` element, do not include punctuation at the end of the `<title>` element intended to delineate the title from the subtitle.

### **`<partNumber>` [RECOMMENDED IF APPLICABLE]**

The `<partNumber>` element is used for a part or section number of a title. `<partNumber>` may describe the section or division titles of the digital object (e.g., a chapter title, or an



audio or video clip). <partNumber> may follow <title> or <subTitle> as appropriate. The DLF guidelines recommend the use of this subelement when a part number is present, rather than including the part number in the text of the <title> element. When using the <partNumber> element, do not include punctuation at the end of the preceding element intended to delineate the part number from previous parts of the title.

Multiple parts of an item should appear in separate MODS records or <relatedItem> elements.

#### **<partName> [RECOMMENDED IF APPLICABLE]**

The <partName> element is used for a part or section name of a title. Use only one <partName> per <titleInfo> element. <partName> may describe the section or division titles of the digital object (e.g., a chapter title, or an audio or video clip). The guidelines recommend the use of this subelement when a part name is present, rather than including the part name in the text of the <title> element. When using the <partName> element, do not include punctuation at the end of the preceding element intended to delineate the part name from previous parts of the title.

Multiple parts of an item should appear in separate MODS records or <relatedItem> elements.

#### **<nonSort> [RECOMMENDED IF APPLICABLE]**

The <nonSort> element contains characters at the beginning of a title that should be ignored for indexing of titles. It should precede the <title> element when used. The guidelines strongly recommend the use of this element when non-sorting characters are present, rather than including them in the text of the <title> element.

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#### **Examples of <titleInfo> use:**

```
<titleInfo>
  <nonSort>The</nonSort>
  <title>Olympics</title>
  <subTitle>a history</subTitle>
  <partNumber>Part 1</partNumber>
  <partName>Ancient</partName>
</titleInfo>

<titleInfo type="alternative" displayLabel="Copyright title">
  <title>Goldwyn-Bray Pictographs, no. 7009</title>
</titleInfo>

<titleInfo>
  <title>Life Mask of Stephen A. Douglas</title>
</titleInfo>
```

---

## MAPPING TO DUBLIN CORE

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>5</sup> recommends mapping the <titleInfo> element and all subelements to the <dc:title> element in simple Dublin Core.

### MODS examples above in Dublin Core:

```
<dc:title>The Olympics: a history. Part 1: Ancient</dc:title>
```

```
<dc:title>Goldwyn-Bray Pictographs, no. 7009</dc:title>
```

```
<dc:title>Life Mask of Stephen A. Douglas</dc:title>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The Title Practices section in the DLF/NSDL *Best Practices for Shareable Metadata* discusses the use of titles.<sup>6</sup> These guidelines are more prescriptive than the DLF/NSDL *Best Practices*, requiring at least one title be present in every record.

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<sup>5</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html>>. Accessed 2005-08-08.

<sup>6</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?TitlePractices>

## <name>

MODS Element	Subelements
<name>	<namePart> <displayForm> <affiliation> <role> <roleTerm> <description>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend that at least one <name> element be used to describe the creator of the intellectual content of the resource, if available. The guidelines require the `type` attribute be used with all <name> elements. In addition, <namePart> is required as a subelement of <name>. This element is repeatable.

## DEFINITION FROM MODS USER GUIDELINES<sup>7</sup>

"name" is a wrapper element for names associated with the resource.

## DISCUSSION OF USE

Include as many <name> elements for contributors as are readily available. Do not be constrained by the *Anglo-American Cataloging Rules*, 2<sup>nd</sup> edition (AACR2) practice of limiting authors or contributors to three or fewer names. For textual materials, include the names of all known authors, translators, and/or editors. For images, include the name of the creator of the original intellectual content (photographer, painter, architect, etc.) and the name of anyone capturing that content in a new medium (for a photograph of a building, include both the architect and the photographer).

In addition to describing creators, <name> is used as a subelement of <subject>. For names used as subjects, see the <subject> section of the guidelines (page 38).

The <name> element has several attributes and subelements discussed below.

### **Attributes:**

#### **type [Required]**

The type attribute can take the following values:

- personal
- corporate
- conference

#### **authority [Recommended]**

---

<sup>7</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

Whenever possible it is recommended that form of name be taken from the LC/NACO authority file. Use the value `naf` in the authority attribute when the form of name is taken from this authority file.

## Subelements:

### **<namePart> [Required]**

The name itself is always wrapped in a `<namePart>` element. MODS allows for either breaking up parts of the name (given and family, for example) in different `<namePart>` elements or enclosing the entire name in one element. Use of the former method affords more control in sorting and display and should be used if the data is readily available. Either method is acceptable in these guidelines.

When breaking a `<name>` element into constituent `<namePart>` elements, the `type` attribute must be used. This attribute takes the following values:

- `date`
- `family`
- `given`
- `termsOfAddress`

### **<displayForm> [Not recommended]**

The `<displayForm>` element makes it possible to display personal names in direct order rather than reversed. The element may be used if desired, but it is not recommended in the guidelines.

### **<affiliation> [Not recommended]**

This subelement contains the name, address, etc. of an organization with which the `<name>` entity was associated when the resource was created. If the information is readily available, it may be included.

### **<role><roleTerm> [Recommended]**

The `<role>` element is used as a wrapper element to contain coded and/or textual description of the role of the named entity. The guidelines recommend using this element primarily with personal names. The `<role>` wrapper contains the `<roleTerm>` subelement that contains the actual coded or textual description. Both the coded and textual forms of the role can be recorded in separate elements within a single `<role>` wrapper. Set the `type` attribute to either `code` or `text` and take the values from the "MARC Value List for Relators and Roles."<sup>8</sup> Set the `authority` attribute to `marcrelator`.

### **<description> [Not Recommended]**

Element used to record a textual description of a name. Use of this subelement is not recommended in these guidelines.

---

<sup>8</sup> <http://www.loc.gov/marc/sourcecode/relator/relatorlist.html>

---

### Examples of <name> use:

```
<name type="personal">
  <namePart>Evans, Walker, 1903-1975</namePart>
  <role>
    <roleTerm type="code" authority="marcrelator">pht</roleTerm>
    <roleTerm type="text"
      authority="marcrelator">Photographer</roleTerm>
  </role>
</name>

<name type="personal">
  <namePart type="family">Faulkner</namePart>
  <namePart type="given">William</namePart>
  <namePart type="date">1897-1962</namePart>
</name>

<name type="corporate">
  <namePart>Digital Library Federation</namePart>
</name>
```

---

## MAPPING TO DUBLIN CORE

<name><namePart> can be mapped to either <dc:creator> or <dc:contributor> in Dublin Core. The guidelines recommend mapping <name> elements to <dc:contributor> as the default, but <dc:creator> may be used if you have source data that clearly identifies the name as creator. Mapping guidelines can be found in the *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*.<sup>9</sup>

### MODS examples above in Dublin Core:

```
<dc:contributor>Evans, Walker, 1903-1975</dc:contributor>

<dc:contributor>Faulkner, William, 1897-1962</dc:contributor>

<dc:contributor>Digital Library Federation</dc:contributor>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The <name> element and its subelements relate to the Name Practices and Subject Practices section of the DLF/NSDL *Best Practices for Shareable Metadata*.<sup>10</sup>

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<sup>9</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>.

<sup>10</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?PublicTOC>

## <typeOfResource>

MODS Element	Subelements
<typeOfResource>	There are no subelements for <typeOfResource>; data is input directly in this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use in all records of at least one <typeOfResource> element using the required enumerated values. This element is repeatable.

## DEFINITION FROM MODS USER GUIDELINES<sup>11</sup>

This element includes a high-level type that categorizes the material in a general way.

## DISCUSSION OF USE

For the purposes of records created according to these guidelines, information in <typeOfResource> is about the digital resource being described.

The <typeOfResource> element is required by these guidelines and is used to categorize the digital resource at a fairly high level. <typeOfResource> has no subelements, but does require the use of an enumerated list of values. There are two possible attributes in addition to the common attributes described at the end of these guidelines (page 70). Repeat <typeOfResource> if necessary.

### Attributes:

#### **collection [Recommended if Applicable]**

Use this attribute (collection="yes") to indicate whether the resource described is a collection. A collection is defined as a multi-part group of resources. If there are multiple resource types within the collection, these should be enumerated in separate <typeOfResource> elements.

---

*Examples of collection attribute use:*

```
<typeOfResource collection="yes">text</typeOfResource>
```

```
<typeOfResource collection="yes">still image</typeOfResource>
```

#### **manuscript [Recommended if Applicable]**

---

<sup>11</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

Use this attribute (`manuscript="yes"`) to indicate whether the resource described is handwritten or typescript.

---

*Example of `manuscript` attribute use:*

```
<typeOfResource manuscript="yes">text</typeOfResource>
```

### **Values:**

The values for `<typeOfResource>` are restricted to those in the following list. These should be used in accordance with the guidelines offered in the *MODS User Guidelines*.<sup>12</sup>

- text
- cartographic
- notated music
- sound recording
- sound recording-musical
- sound recording-nonmusical
- still image
- moving image
- three dimensional *resource*
- software, multimedia
- mixed material

---

### **Examples of `<typeOfResource>` use:**

Encoding of this element for a German emblem book.

```
<typeOfResource>text</typeOfResource>
```

```
<typeOfResource>still image</typeOfResource>
```

---

## **MAPPING TO DUBLIN CORE**

Follow the guidelines offered in *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>13</sup> to map `<typeOfResource>` to `<dc:type>`. One point of difference is that when mapping the values found in `<typeOfResource>` to the Dublin Core Type values<sup>14</sup>, include both the MODS value and the DC value if they are substantially different.

### **Example of encoding both MODS and DC types for a map in Dublin Core:**

```
<dc:type>cartographic</dc:type>
```

---

<sup>12</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-elements.html#typeofresource>

<sup>13</sup> The crosswalk is available on line at <http://www.loc.gov/standards/mods/mods-dcsimple.html/>. Accessed 2005-08-08.

<sup>14</sup> <http://dublincore.org/documents/dcmi-type-vocabulary/>

<dc:type>StillImage</dc:type>

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Related information is discussed in the Types of Resource<sup>15</sup> and the Describing Versions and Reproductions<sup>16</sup> sections of the DLF/NSDL *Best Practices for Shareable Metadata*.

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<sup>15</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?TypesofResources>

<sup>16</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?DigitalTactileResource>



## <genre>

MODS Element	Subelements
<genre>	There are no subelements for <genre>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines requires the use of at least one <genre> element in every MODS record and highly recommends the use of a value from a controlled list and the designation of this list in the `authority` attribute. This element is repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>17</sup>

"genre" contains a category that characterizes a particular style, form, or content, such as artistic, musical, literary composition, etc.

## DISCUSSION OF USE

For the purposes of records created according to these guidelines, information in <genre> is about the content of the digital resource described.

The <genre> element is required in these guidelines and should be used to characterize the content of the digital resource rather than the digital resource itself. The values should be pulled from a controlled vocabulary appropriate for the resource described. This vocabulary is indicated in the `authority` attribute. Consult "Source Codes for Genre," a list of possible controlled vocabularies and their source codes, maintained by the Library of Congress.<sup>18</sup>

Values given should be as specific as possible. Repeat this element as required.

### Attributes:

**Authority** [Recommended if applicable]

Use this attribute to indicate the controlled vocabulary used for the values in the <genre> element.

---

### Examples of <genre> use for a digital image of a Civil War era daguerreotype portrait:

---

<sup>17</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

<sup>18</sup> <http://www.loc.gov/marc/sourcecode/genre/genresource.html>

```
<genre authority="aat">daguerreotypes</genre>
<genre authority="aat">portraits</genre>
```

**Examples of <genre> use for a children's adventure story:**

```
<genre authority="gsafd">adventure fiction</genre>
<genre authority="lcsh">Children's literature</genre>
```

---

## MAPPING TO DUBLIN CORE

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>19</sup> recommends mapping the <genre> element to the <dc:type> element in simple Dublin Core. These guidelines recommend following this mapping.

**MODS examples above in Dublin Core:**

```
<dc:type>daguerreotypes</dc:type>
<dc:type>portraits</dc:type>

<dc:type>adventure fiction</dc:type>
<dc:type>Children's literature</dc:type>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Related information is discussed in the Types of Resource<sup>20</sup> and the Describing Versions and Reproductions<sup>21</sup> sections of the DLF/NSDL *Best Practices for Shareable Metadata*.

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<sup>19</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>. Accessed 2005-08-08.

<sup>20</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?TypesofResources>

<sup>21</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?DigitalTactileResource>

## <originInfo>

MODS Element	Subelements
<originInfo>	<place> <publisher> <dateIssued> <dateCreated> <dateCaptured> <dateValid> <dateModified> <copyrightDate> <dateOther> <edition> <issuance> <frequency>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use of at least one <originInfo> element with at least one date subelement in every record, one of which must be marked as a key date. <place>, <publisher>, and <edition> are recommended if applicable. These guidelines make no recommendation on the use of the elements <issuance> and <frequency>.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>22</sup>

"originInfo" is a wrapper element that contains all subelements related to publication and origination information. It includes place of origin or publication, publisher/originator, all dates associated with the resource, and issuance information.

## DISCUSSION OF USE

All values in the <originInfo> element should represent metadata applicable to the original form of a resource, rather than a digitized form of an originally analog resource. Metadata referring to a digitized copy of a resource, such as date of digitization, should be recorded within appropriate subelements of <relatedItem>, as described elsewhere in these guidelines. Information about an institution responsible for digitizing and delivering online a resource should be included in <note>, rather than <originInfo><publisher>.

### Subelements:

<place><placeTerm> [RECOMMENDED IF APPLICABLE]

<sup>22</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

Record in `<place><placeTerm>` place names associated with the creation or issuance of a resource. Follow the MODS *User Guidelines* for the structure and use of repeated `<place>` elements and `<placeTerm>` subelements. Descriptive standards such as AACR2 may be used to determine which places to record for published resources. For unpublished resources, if a place of origin is known, record it in `<place><placeTerm>`.

The `<place><placeTerm>` element should be omitted if no information about the originating place of the resource is known.

Repeat `<place>` for recording multiple places.

### **Attributes:**

#### **type**

For each `<placeTerm>` given, the guidelines recommend including at a minimum a textual version of the place, with the attribute `type="text"`.

#### **authority**

If the place given is a country, and the name of that country has been selected from the MARC country code list<sup>23</sup> or the ISO3166 standard list of country names,<sup>24</sup> add an authority attribute to `<placeTerm>` indicating the source of the country name, and add a second `<placeTerm>` subelement within `<place>` indicating the coded version of that country name from the chosen authoritative list, with the attribute `type="code"` and an authority attribute indicating the source of the country code.

### **`<publisher>` [RECOMMENDED IF APPLICABLE]**

Record in `<publisher>` a named entity determined to be the publisher for a resource. Descriptive standards such as AACR2 may be used to format the name of the publisher.

### **Attributes:**

There are no attributes for the `<publisher>` element.

### **Dates [AT LEAST ONE DATE ELEMENT IS REQUIRED]**

The MODS schema includes several date elements intended to record different events that may be important in the life of a resource.

The following date elements are recommended for use by these guidelines. Record dates for as many of these MODS elements as is appropriate:

`<dateIssued>` publication or issued date  
`<dateCreated>` date of creation of the resource

---

<sup>23</sup> <http://www.loc.gov/marc/countries/>

<sup>24</sup> <http://www.iso.ch/iso/en/prods-services/iso3166ma/index.html>

`<copyrightDate>` date in which a resource is copyrighted  
`<dateOther>` generic date element that does not fall into another category but is important to record

The following date elements are *not* recommended for use because they are more appropriate for technical than for descriptive metadata for a digital resource:

`<dateCaptured>` date on which the resource was digitized or a subsequent snapshot was taken  
`<dateValid>` date in which the content of a resource is valid  
`<dateModified>` date in which a resource is modified or changed

The guidelines recommend recording each date in a structured form rather than a textual form. When a date is uncertain or cataloger-supplied, indicate this through the use of the qualifier attribute (described below) rather than inserting characters such as "ca.," brackets or a question mark as part of the date string.

### **Attributes:**

The attributes below apply to all MODS date elements.

#### **encoding [recommended]**

If an exact year is known, the DLF MODS Implementation Guidelines recommend representing the value using the `wc3dtf` encoding, which also allows month and day to be specified if known. The W3CDTF encoding is a profile of the more flexible ISO8601 standard. Using W3CDTF ensures a more predictable format for dates. If an exact year is not known, the encoding value `marc` may be used in the `<dateIssued>` element to indicate dates formulated according to MARC dates of publication/issuance rules, as described in the MODS user guide. The value `iso8601` is not recommended for use by the DLF Guidelines.

#### **point [recommended if applicable]**

The point attribute is used to specify whether a date is a start date or an end date if the resource is best described by a date range. Best practice is to use the point attribute only when a date range is indicated, not for single dates.

#### **keyDate [required in one and only one date element]**

Every MODS record containing at least one date should have *one and only one* date element with the attribute `keyDate="yes"`. The key date will be used by OAI service providers for date indexing, sorting, and display. The date chosen to be marked as the key date should be the date considered by the metadata provider as the most important for end-user access.

#### **qualifier [recommended if applicable]**

The qualifier attribute has three allowed values: `approximate`, `inferred`, and `questionable`. Best practice is to use this attribute with the appropriate value

when a date is approximate, inferred, or questionable, rather than inserting characters such as "*ca.*," brackets or a question mark within the date string.

**<edition> [RECOMMENDED IF APPLICABLE]**

The <edition> element is used to provide an edition statement for a published work. Descriptive standards such as AACR2 and DACS may be used to determine if an edition statement should be recorded and in what format. If no edition statement applies to the resource, do not include the <edition> element.

**Attributes:**

There are no attributes for the <edition> element.

**<issuance> [NO RECOMMENDATION]**

**<frequency> [NO RECOMMENDATION]**

---

**Examples of <originInfo> use:**

```
<originInfo>
  <place>New York</place>
  <publisher>MacMillan</publisher>
  <copyrightDate encoding="w3cdtf" keyDate="yes"
    qualifier="inferred">1922</copyrightDate>
  <edition>2nd ed.</edition>
</originInfo>

<originInfo>
  <dateCreated encoding="w3cdtf" keyDate="yes"
    qualifier="approximate">1857</dateCreated>
</originInfo>

<originInfo>
  <place>
    <placeTerm type="code"
      authority="marccountry">enk</placeTerm>
    <placeTerm type="text">England</placeTerm>
  </place>
  <dateIssued encoding="w3cdtf" keyDate="yes"
    qualifier="inferred">1855</dateIssued>
  <issuance>monographic</issuance>
</originInfo>
```

---

## MAPPING TO DUBLIN CORE

Subelements of <originInfo> map incompletely to Dublin Core fields in the *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*.<sup>25</sup> The MODS element <publisher> maps to <dc:publisher>, and all of the date elements to <dc:date>. The MODS elements <place>, <edition>, <issuance>, and <frequency> do not map to simple Dublin Core elements.

**MODS examples above in Dublin Core:**

```
<dc:publisher>MacMillan</dc:publisher>  
<dc:date>1922</dc:date>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The data in MODS date elements is discussed in the Date Practices page on the DLF/NSDL *Best Practices for Shareable Metadata*.<sup>26</sup> Other elements in <originInfo> are not covered in the DLF/NSDL *Best Practices*.

---

<sup>25</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>. Accessed 2005-08-08.

<sup>26</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?DatePractices>

## <language>

MODS Element	Subelements
<language>	<languageTerm>

### SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require at least one <language> element for all resources in which language is of primary importance to understanding the resource. These resources include textual resources, as well as audio and video resources with spoken word components. Although <language> is usually not required for non-textual resources such as images, it could be used effectively for such resources when language is a primary component. Examples of the latter might include a photograph of a sign with text or a monument with an inscription. Repeat this element as required.

### DEFINITION FROM *MODS USER GUIDELINES*<sup>27</sup>

The <language> element is used to describe the language or languages of the content of the resource.

### DISCUSSION OF USE

<language> is a wrapper element for one or more <languageTerm> elements. Use as many <language> elements as necessary to describe the languages represented in the resource content. At least one <language> element is required for resources in which language is of primary importance to understanding the resource.

#### **Subelements:**

##### **<languageTerm> [Required]**

This repeatable subelement contains the language of the content of the resource in coded and/or textual form. These guidelines require at least one pair of <languageTerm> elements representing the primary language of the text wrapped in a single <language> element. One of these <languageTerm> elements should carry the attribute `type="text"` and the other should have `type="code"`. Additional pairs of <languageTerm> elements representing secondary languages may be included in separate <language> elements.

#### **Attributes:**

##### **type [Required]**

This attribute may contain the following values:

---

<sup>27</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>



`text` - The value of this attribute is the name of the language of the electronic resource in text form. Use the form of the language found in the MARC Code List for Languages.<sup>28</sup>

`code` - The value of this attribute is the three-character alphabetic code found in ISO 639-2 (Codes for the representation of names of languages: alpha-3 code)<sup>29</sup>, which is identical to the MARC Code List for Languages.

#### **authority [Required]**

These guidelines require using the value `iso639-2b` for this attribute in the `<languageTerm>` element that contains the attribute `type="code"`. Do not use an `authority` attribute in the `<languageTerm>` element that contains the attribute `type="text"`.

---

#### **Examples of <language> use:**

```
<language>
  <languageTerm type="text">French</languageTerm>
  <languageTerm type="code" authority="iso639-
    2b">fre</languageTerm>
</language>
```

---

### **MAPPING TO DUBLIN CORE**

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>30</sup> recommends mapping the contents of the `<language>` element to `<dc:language>`. The DLF Guidelines further recommend mapping each subelement `<languageTerm>` to a distinct `<dc:language>` element.

#### **MODS examples above in Dublin Core:**

```
<dc:language>French</dc:language>
<dc:language>fre</dc:language>
```

### **RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA**

Language is discussed as a general class of element in the "Language" section of the DLF/NSDL *Best Practices for Shareable Metadata*.<sup>31</sup>

---

<sup>28</sup> <http://www.loc.gov/marc/languages/>

<sup>29</sup> <http://www.loc.gov/standards/iso639-2/>

<sup>30</sup> The crosswalk is available on line at <http://www.loc.gov/standards/mods/mods-dcsimple.html/>.

<sup>31</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?PublicTOC>

## <physicalDescription>

MODS Element	Subelements
<physicalDescription>	<form> <reformattingQuality> <internetMediaType> <extent> <digitalOrigin> <note>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use in all records of one <physicalDescription> element, one subelement <digitalOrigin>, and at least one subelement <internetMediaType>. <physicalDescription> is not repeatable.

## DEFINITION FROM MODS USER GUIDELINES<sup>32</sup>

"physicalDescription" is a wrapper element that contains all subelements relating to physical description information of the resource described.

## DISCUSSION OF USE

For the purposes of records created according to these guidelines, information in <physicalDescription> is about the digital resource being described. When describing a digital surrogate, information about the physical description of the non-digital original resource can be supplied using a <relatedItem> element, if desired. See the requirements for the <relatedItem> element on page 50.

### Subelements:

#### <form> [NOT RECOMMENDED]

This subelement specifies the physical form or medium of the material for a resource. It has one attribute, *authority*, which is used to specify the source of the controlled value recorded. If used, the data content for this element would be *electronic* for all digital resources.

#### <reformattingQuality> [NOT RECOMMENDED]

This subelement reflects an overall assessment of the quality of the digital resource. It has no attributes. These guidelines suggest that this type of information belongs in technical rather than descriptive metadata.

<sup>32</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

### **<internetMediaType> [AT LEAST ONE REQUIRED]**

This subelement records the electronic format type of the digital resource. It has no attributes. The content value for this subelement should be taken from the MIME Media Types list and expressed in the format `type/subtype`.<sup>33</sup> If a digital resource comprises multiple file types (for example, a diary that has been imaged and a text transcription made available), use a separate subelement for each.

---

*Example of <internetMediaType> use:*

```
<internetMediaType>text/html</internetMediaType>
```

### **<extent> [RECOMMENDED IF APPLICABLE]**

This subelement includes information about the physical form or material for the resource. It has no attributes. When describing a digital surrogate for a non-digital original that has not been completely digitized, explicitly record here information about the portion digitized.

The use of your content standard of choice is strongly recommended if this subelement is used.

---

*Examples of <extent> use:*

```
<extent>All 177 pages of the original have been  
digitized.</extent>
```

```
<extent>Includes a sample of 15 of the original 157  
slides.</extent>
```

```
<extent>The entire content of the original has been digitized.  
</extent>
```

### **<digitalOrigin> [REQUIRED]**

Record whether a digital resource is born digital or reformatted digital here. Content values for this subelement are either `born digital` or `reformatted digital`. This subelement has no attributes.

---

*Example of <digitalOrigin> use:*

```
<digitalOrigin>reformatted digital</digitalOrigin>
```

### **<note> [RECOMMENDED IF APPLICABLE]**

This subelement contains notes relating to the physical description of a resource that do not fit in one of the other available subelements. A separate `<note>` subelement should be used for each distinct note. See the *MODS User Guidelines* for information on the seven available attributes for this subelement.

---

<sup>33</sup> This list is available at <http://www.iana.org/assignments/media-types/index.html>. Accessed 2005-08-05.

---

**Examples of <physicalDescription> use:**

Encoding of this element for a diary that has been imaged and for which a text transcription has been made:

```
<physicalDescription>
  <internetMediaType>image/jpeg</internetMediaType>
  <internetMediaType>text/xml</internetMediaType>
  <digitalOrigin>reformatted digital</digitalOrigin>
</physicalDescription>
```

---

**MAPPING TO DUBLIN CORE**

The MODS <digitalOrigin> subelement is not explicitly included on the *MODS to Dublin Core Metadata Element Set Mapping, Version 3.0 (June 7, 2005)*, but the guidelines recommend following the recommendation therein of mapping <physicalDescription> subelements to <dc:format>.

**MODS example above in Dublin Core:**

```
<dc:format>image/jpeg</dc:format>
<dc:format>text/xml</dc:format>
<dc:format>reformatted digital</dc:format>
```

**RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA**

Physical description is not explicitly covered in the DLF/NSDL *Best Practices for Shareable Metadata*. However, portions of the Types of Resources<sup>34</sup> and Describing Versions and Reproductions<sup>35</sup> sections may be applicable.

---

<sup>34</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?TypesofResources>

<sup>35</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?DigitalTactileResource>

## <abstract>

MODS Element	Subelements
<abstract>	There are no subelements for <abstract>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend the use of one <abstract> element in every MODS record, except when a title, formal or supplied, serves as an adequate summary of the content of the digital resource. This element is repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>36</sup>

"abstract" contains a summary of a resource.

## DISCUSSION OF USE

For the purposes of records created according to these guidelines, information in an <abstract> is about the content of the digital resource being described. Repeat this element as required (for example, to encode an abstract in different languages).

Record a succinct summary of the content of the digital resource. When creating a MODS record for a digital surrogate, record a summary of the content of the original resource. If only a portion of the resource was digitized, summarize only that portion. This element provides end users with information about the digital resource that assists them in making a judgment about its likely usefulness, and also provides context, if needed, for controlled vocabulary used in the record.

The use of your content standard of choice is strongly recommended.

---

### Examples of <abstract> use:

```
<abstract>Depicts stationery store and other buildings in San  
Francisco, California.</abstract>
```

```
<abstract>Broadside advertising a funeral ceremony commemorating  
assassinated president Abraham Lincoln, held in Elgin, Illinois,  
on April 19, 1865. It details the route of the procession, the  
order of local official participants in the procession, and the  
order of service for the ceremony to be held in the Academy Hall.  
</abstract>
```

---

<sup>36</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

## MAPPING TO DUBLIN CORE

The MODS <abstract> element is mapped to <dc:description> in *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>37</sup>. The DLF Guidelines recommend following this mapping.

### MODS examples above in Dublin Core:

```
<dc:description>Depicts stationery store and other buildings in  
San Francisco, California.</dc:description>
```

```
<dc:description>Broadside advertising a funeral ceremony  
commemorating assassinated president Abraham Lincoln, held in  
Elgin, Illinois, on April 19, 1865. It details the route of the  
procession, the order of local official participants in the  
procession, and the order of service for the ceremony to be held  
in the Academy Hall.</dc:description>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Abstract as a broad class of elements is not covered in the "Recommendations for classes of data elements" in the DLF/NSDL *Best Practices for Shareable Metadata*.<sup>38</sup>

---

<sup>37</sup> <<http://www.loc.gov/standards/mods/mods-dcsimple.html>>. Accessed 2005-08-15.

<sup>38</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?PublicTOC>

## <tableOfContents>

MODS Element	Subelements
<tableOfContents>	There are no subelements for <tableOfContents>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend the use of the <tableOfContents> element when applicable. This element is not repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>39</sup>

"tableOfContents" contains contents notes for a resource.

## DISCUSSION OF USE

Use of <tableOfContents> should be determined by the complexity of the digital object and whether or not the information is readily available. If more structured information is needed, consider using <relatedItem> with the type="constituent" attribute instead (see page 50). MODS also allows for <tableOfContents> to be used as an empty element with an xlink:href attribute to link to an external table of contents. Either method is supported by these guidelines.

### Attributes:

#### **type [NOT RECOMMENDED]**

There are no guidelines and no controlled vocabulary for this attribute; it is not recommended.

#### **displayLabel [RECOMMENDED]**

The DLF guidelines recommend using the displayLabel attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute. This attribute can be used whenever necessary to explain more about what is contained in the <tableOfContents>. Examples include Partial Contents, List of Photographs, or Chapters.

---

<sup>39</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

**xlink:href [RECOMMENDED IF APPLICABLE]**

This attribute may be used to link to an external table of contents.

---

#### **Examples of <tableOfContents> use:**

```
<tableOfContents displayLabel="Partial Contents">Honey Boy -  
Hiawatha Song - Her Boy in Blue</tableOfContents>
```

```
<tableOfContents  
xlink:href="http://www.ojp.usdoj.gov/bjs/toc/cchrie98.htm" />
```

---

### **MAPPING TO DUBLIN CORE**

<tableOfContents> does not map to any element in the Dublin Core Metadata Element Set in the *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*.<sup>40</sup> However, the value in the <tableOfContents> element may map to the <dc:description> element.

#### **MODS example above in Dublin Core:**

```
<dc:description>Honey Boy - Hiawatha Song - Her Boy in  
Blue</dc:description>
```

### **RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA**

This element does not correspond to any sections in the DLF/NSDL *Best Practices for Shareable Metadata*.<sup>41</sup>

---

<sup>40</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html>>. Accessed 2005-08-08.

<sup>41</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?PublicTOC>



## <targetAudience>

MODS Element	Subelements
<targetAudience>	There are no subelements for <targetAudience>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend the use of at least one <targetAudience> element when applicable, and a controlled vocabulary when available. This element is repeatable.

## DEFINITION FROM MODS USER GUIDELINES<sup>42</sup>

"targetAudience" describes the intellectual level of the audience for which the resource is intended.

## DISCUSSION OF USE

<targetAudience> should be used to describe a group for which a resource is intended. The element should be used whenever there is a specific audience for a resource (for example, a text marked up specifically for historians). Note that the DLF guidelines do not limit the use of the <targetAudience> element to the intellectual level of the audience. The *authority* attribute should be used when possible to indicate the controlled vocabulary used (see below for a caveat).

<targetAudience> should not be used to indicate audiences to whom access or use of the resource is limited; this information should be included in the <accessCondition> element (see page 60).

### **Attribute:**

***authority* [Recommended if applicable]**

This attribute should be used to indicate the controlled vocabulary in use. The DLF guidelines recognize that the "Source Codes for Target Audience"<sup>43</sup> maintained by the Library of Congress contains only one source code, *marctarget*,<sup>44</sup> which itself contains a very limited set of values. If this source is not of use, the DLF guidelines recommend that the value of the <targetAudience> be expressed clearly and is generally understandable outside of the local context of the resource.

<sup>42</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

<sup>43</sup> <http://www.loc.gov/marc/sourcecode/target/targetsource.html>

<sup>44</sup> <http://www.loc.gov/marc/sourcecode/target/targetlist.html>

---

**Examples of <targetAudience> use:**

```
<targetAudience
authority="marctarget">specialized</targetAudience>

<targetAudience>Genealogists</targetAudience>

<targetAudience>English as a second languages (ESL)
students</targetAudience>
```

---

## **MAPPING TO DUBLIN CORE**

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>45</sup> does not provide a mapping for <targetAudience>. Note, however, that if Qualified Dublin Core is used, <dc:audience> would be the appropriate target element for <targetAudience>.

## **RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA**

The DLF/NSDL *Best Practices for Shareable Metadata*<sup>46</sup> do not discuss audience as a general class of elements.

---

<sup>45</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>.

<sup>46</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?PublicTOC>

## <note>

MODS Element	Subelements
<note>	There are no subelements for <note>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF Implementation Guidelines do not require the use of <note>, but recommend using this element if applicable. The <note> element should be repeated for each distinct note.

## DEFINITION FROM MODS USER GUIDELINES

"note" contains any note relating to a resource.

## DISCUSSION OF USE

For the purposes of records created according to the DLF Guidelines, information in <note> is about the intellectual content of the digital resource being described.

When the resource described is a digital surrogate, <note> content should describe the intellectual content of the resource. If notes relating to the physical description of the original resource, including conservation treatments, are important to include in the MODS record for the digital surrogate, they can be supplied using a <relatedItem> element (see page 50).

<note> should be used only for information that cannot be encoded in another, more specific MODS element. For example, in retrospective conversion of existing MARC 21 records, many 5XX note fields, while technically falling within the definition of the <note> element above, should be mapped to more specific MODS elements. Also, not all notes in existing MARC 21 records provide information about the intellectual content of the digital resource being described; these need not be mapped into the MODS record. In an OAI-PMH environment, where end users will be directed by service providers back to the original institution's site and a complete metadata record for access, <note> content that is not about the content of the resource may not need to be included in the MODS record made available for harvesting. Several examples, using MARC 21 and EAD, of mappings to more specific MODS elements than <note> are given in the chart below:

MARC 21 field	EAD element	Type of content	More specific MODS mapping
501	Nested <c01>, <c02>, etc.	Indicates that the item being described is physically part of a larger entity.	<relatedItem type="host"><note>
506	<accessrestrict>	Indicates restrictions on access.	<accessCondition>

520	<scopecontent>	A summary describing the scope and general contents of the item being described.	<abstract>
521	N/A	Identifies the specific audience or intellectual level for which the content of the described item is considered appropriate.	<targetAudience>
530	<altformavail>	Identifies additional physical form(s) in which the described item is available.	<relatedItem type="otherFormat"> <note>
534	<originalsloc>	Describes the original version when the described item is a surrogate or reproduction.	<relatedItem type="original"> <abstract>
535	<originalsloc> OR <altformavail>	Indicates the name and address of the repository that has custody of the original or a duplicate copy of the described material when either is housed in a repository different from that of the material being described	<relatedItem type="original"> <location><physicalLocation> OR <relatedItem type="otherFormat"> <location><physicalLocation>
546	<langmaterial>	Textual information on the language of the described materials.	<language>

### **Attributes:**

#### **type [NOT RECOMMENDED]**

There are no guidelines and no controlled vocabulary for this attribute; it is not recommended.

#### **displayLabel [RECOMMENDED]**

These guidelines recommend using the displayLabel attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

---

### **Examples of <note> use:**

```
<note>Based on the play "I am a camera" by John Van Druten, and
"Berlin stories" by Christopher Isherwood.</note>
```

```
<note>Digital file includes a piano score composed and performed
by Philip Carli.</note>
```

```
<note>Perspective map not drawn to scale.</note>
```

---

## MAPPING TO DUBLIN CORE

Follow the guidelines offered in MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005) to map each <note> element to a <dc:description> element.

### MODS examples above in Dublin Core:

```
<dc:description>Based on the play "I am a camera" by John Van  
Druten, and "Berlin stories" by Christopher  
Isherwood.</dc:description>
```

```
<dc:description>Digital file includes a piano score composed and  
performed by Philip Carli.</dc:description>
```

```
<dc:description>Perspective map not drawn to  
scale.</dc:description>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Notes as a broad class of elements are not covered in the "Recommendations for classes of data elements"

## <subject>

MODS Element	Subelements
<subject>	<topic> <geographic> <temporal> <titleInfo> <name> <geographicCode> <hierarchicalGeographic> <cartographics> <occupation>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require, when applicable, the use of at least one <subject> element in a record. (Values for <subject> indicate what content is found within or represented by the work, and typically answer such questions as *who*, *what*, *where*, and *when*.)<sup>47</sup> These guidelines also highly recommend the use of <subject> values from a controlled list and the designation of this list in the authority attribute. Parsing subject values into subelements, rather than placing them in <subject><topic> strings, is not required but is highly recommended, when applicable. Repeat distinct, multiple subjects in separate <subject> fields.

## DEFINITION FROM MODS USER GUIDELINES<sup>48</sup>

"subject" is a wrapper tag that binds together subelements.

## DISCUSSION OF USE

For the purposes of records created according to the DLF Guidelines, information in <subject> describes subject content represented in or by the work, and typically answers such questions as *who*, *what*, *where*, and *when*.

Whether or not the use of <subject> is applicable depends upon who might search for an item outside its local context and how they are likely to search for it. For instance, topical subject content may not apply to some items, such as abstract art. Note that the MODS <subject> element deals with the content of the work only—what the work is *about*—and not with its genre. If researchers are likely to be interested in the form or genre of an item, and not its subject content, including the <subject> element may not be

<sup>47</sup> The discussion of subjects in *Descriptive Metadata Guidelines for RLG Cultural Heritage Materials* guides much of this understanding of subject content: [http://www.rlg.org/en/pdfs/RLG\\_desc\\_metadata.pdf](http://www.rlg.org/en/pdfs/RLG_desc_metadata.pdf). Description of subject content may not be applicable to some works; in those cases, use of a <subject> element is not required. See "Discussion of Use" for more information on the appropriate use of this element.

<sup>48</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>.

appropriate. However, in many instances, using appropriate <subject> values can greatly enhance users' ability to locate relevant works. Enter as many specific terms as necessary to capture subject content, and be consistent in the formatting of subject terms.

It is highly recommended that subject terms come from a controlled vocabulary or formal classification scheme and that this source is identified in the *authority* attribute. Select controlled vocabularies that are most relevant to and frequently used by the communities likely to benefit from the described materials, and explicitly identify this source. If a subject term is appropriate or well-known among a group of users, and it is not included in a formal classification scheme, it may still be included, but the source of the term should be identified. Place all locally-developed vocabulary terms in a separate <subject> group and define their *authority* as *local*.<sup>49</sup> If the term is not controlled by a formal classification scheme or a locally developed scheme, *authority* is not defined.

As described below, subelements within <subject> are used to differentiate subject content. While MODS does allow for placing multiple values in a single <subject><topic> string, parsing subject terms into separate subelements is the preferred practice and highly recommended in these guidelines. Express multiple subjects in repeated fields.

Examples below illustrate both the highly recommended practice of parsing and repeating of subelements and the acceptable practice of recording subelements in a string. For more illustrations of parsing and repeating, see examples provided for each subelement.

---

### **Examples of <subject> use:**

With parsed and repeated <subject> values, with LCSH specified as the authority at the <subject> level:

```
<subject authority="lcsch">
  <topic>Railroads</topic>
  <geographic>West (U.S.)</geographic>
  <topic>Maps</topic>
</subject>
```

With <subject> values recorded in a string, with LCSH specified as the authority at the <subject> level:

```
<subject authority="lcsch">
  <topic>Railroads--West (U.S.)--Maps</topic>
</subject>
```

---

### **Attributes:**

The DLF guidelines recommend using the following attribute with the <subject> element:

---

<sup>49</sup> If you are using a locally-developed vocabulary for your records, it is highly recommended that you expose this authority source, in addition to indicating its use in the *authority* attribute.

**authority [Recommended, if applicable]**

The name of the authoritative list for a controlled value is recorded here. An `authority` attribute may also be used to indicate that a subject is controlled by a record in an authority file. Authority should be specified for all terms, whether they come from a controlled vocabulary or formal classification scheme, or are locally developed. The `authority` attribute for a locally-developed scheme should be defined as *local*. If no scheme controls the terms used, omit the `authority` attribute.

Specify authority at the highest level, or `<subject>` level. If you are using more than one authority for subject values, you may want to specify authority at the subelement level.<sup>50</sup> Be aware that, while it is possible to add an authority for the subelement `<hierarchicalGeographic>`, it may not always be applicable.

**Subelements:****`<topic>` [Recommended, if applicable]**

This subelement indicates any primarily topical subjects that are not appropriate in the `<geographic>`, `<temporal>`, `<titleInfo>`, or `<name>` subelements. While it is highly recommended that subject values be parsed into subelements, they may also be listed as a string under `<subject><topic>`. This subelement has no attributes.

If a controlled subject term is used, indicate authority using the `authority` attribute at the `<subject>` level. Locally developed terms should be listed separately, with *local* indicated as the source using the `authority` attribute at the `<subject>` level. If the term is uncontrolled (for example, if it is a keyword from legacy records), do not use the `authority` attribute.<sup>51</sup>

---

*Examples of `<topic>` use:*

With `<topic>` values recorded in a string, and AAT specified as the authority at the `<subject>` level:

```
<subject authority="aat">
  <topic>vandalism</topic>
</subject>
```

---

<sup>50</sup> XML editors differ in flexibility when it comes to expressing authority for subelements. Be aware that, depending on the editor, it may not be possible to express authority for subelements. In such cases, it is preferable to include within each `<subject></subject>` grouping only those terms that are controlled by the same authority.

<sup>51</sup> The concept of an "uncontrolled term" is misleading: ideally, all terms used as subject values should be controlled, whether that control comes from a formal classification scheme or from a locally developed vocabulary. But we also recognize that if one is converting legacy records, subject values may not be controlled. However, the recommended best practice is to pull from controlled schema, or to make the locally developed list available.



With `<topic>` grouped with other `<subject>` subelements that use same authority, with LCSH and local specified separately as authority at the `<subject>` level:

```
<subject authority="lcsch">
  <topic>Funeral rites and ceremonies</topic>
  <geographic>Louisiana</geographic>
  <geographic>New Orleans</geographic>
</subject>
<subject authority="local">
  <topic>Jazz funerals</topic>
</subject>
```

### **`<geographic>` [Recommended, if applicable]**

Use this subelement for geographic subject terms that are not parsed as hierarchical geographics (see below). If the geographic name is part of a corporate body (for example, United States. Senate), it is coded as `<name>`, not `<geographic>`. This subelement has no attributes.

If a controlled subject term is used, indicate authority using the `authority` attribute at the `<subject>` level.

---

#### *Examples of `<geographic>` use:*

With LCSH specified as the authority at the `<subject>` level:

```
<subject authority="lcsch">
  <geographic>United States</geographic>
</subject>
```

With TGM specified as the authority at the `<subject>` level:

```
<subject authority="lctgm">
  <topic>Educational buildings</topic>
  <geographic>Washington (D.C.)</geographic>
  <temporal>1890-1910</temporal>
</subject>
```

### **`<hierarchicalGeographic>` [Recommended, if applicable]**

This subelement includes a hierarchical form of a place name relating to the content of the resource that is both readable by humans and parsable by machines. This form can be applied to the degree of specificity that is known or relevant and used to generate browsable hierarchies even when values are specified to different levels. Explicit inclusion of the complete hierarchy is of potential benefit for automated consultation of a gazetteer to derive map coordinates or to support a map-based interface for searching by country or state. This subelement has no attributes.

Authority is not specified at the subelement level, but authority can and should be specified at the `<subject>` level.

### **Subelements:**

The following subelements are defined for `<hierarchicalGeographic>`:

```
<continent>
<country>
<province>
<region>
<state>
<territory>
<county>
<city>
<island>
<area>
```

See the *MODS User Guidelines* for more information on using these subelements.

---

*Example of `<hierarchicalGeographic>` use:*

```
<subject authority="tgn">
  <hierarchicalGeographic>
    <country>United States</country>
    <state>Mississippi</state>
    <county>Harrison</county>
    <city>Biloxi</city>
  </hierarchicalGeographic>
</subject>
```

### **`<temporal>` [Recommended, if applicable]**

Use this subelement for chronological subject terms or temporal coverage. It may be expressed as a controlled subject term or as a structured date using the same data definition as MODS dates.

If a controlled subject term is used, indicate authority using the `authority` attribute at the `<subject>` level. Normalized dates are critical for effective searching. Dates should be formatted consistently, following the structure dictated by the formatting source used. Indicate this source using the `encoding` attribute. Note that the `point` attribute is used to indicate a date range, *not* a single date.

### **Attributes:**

#### **`encoding` [Recommended]**

If a structured date is used, indicate the formatting source using the `encoding` attribute. These guidelines recommend using the following value for the `encoding` attribute:

- `w3cdtf` - used for the ISO 8601 profile to specify YYYY-MM-DD date patterns

#### **`point` [Recommended, if applicable]**

The `point` attribute can be used to encode date ranges using the following values:

- start - used for first date of a range
- end - used for the end date of a range

If no point attribute is specified, date is assumed to be a single date.

**keyDate** [Not recommended. See <originInfo>]

Used to specify a single date which should be used by OAI service providers for date indexing, sorting, and display. *Only one date element should be specified as a key date.* These guidelines recommend that the keyDate appear in the <originInfo> element (see page 19).

---

*Examples of <temporal> use:*

With the authority attribute used when expressing <temporal> as a chronological subject term:

```
<subject authority="rvm" lang="fre">
  <topic>Église catholique</topic>
  <topic>Histoire</topic>
  <temporal>20e siècle</temporal>
</subject>
```

With the encoding attribute used to indicate a single date in time:

```
<subject>
  <temporal encoding="w3cdtf">1975-05</temporal>
</subject>
```

With the encoding and point attributes used to indicate a date range:

```
<subject>
  <temporal encoding="w3cdtf" point="start">2001-09-
11</temporal>
  <temporal encoding="w3cdtf" point="end">2003-03-
19</temporal>
</subject>
```

**<titleInfo>** [Recommended, if applicable]

This subelement includes a title used as a subject. Note that titles frequently appear with a name (i.e., names of composers included with titles of musical works).

The DLF guidelines recommend using an authority attribute at this level to indicate titles controlled by an authority. Additionally, the guidelines recommend more explicit specification of authority, including specifying authority at the <subject> level and the subelement level.

All subelements and attributes used under the top-level element <titleInfo> may be used with this subelement; see the <titleInfo> section of the guidelines for more information (see page **Error! Bookmark not defined.**).

---

*Examples of <titleInfo> use:*

With authority specified at the <subject> level and the subelement level:

```
<subject authority="lcsch">
  <name type="personal" authority="naf">
    <namePart>Fine, Irving</namePart>
    <namePart type="date">1914-1962</namePart>
  </name>
  <titleInfo>
    <title>Partita for Wind Quintet</title>
  </titleInfo>
</subject>

<subject authority="lcsch">
  <name type="personal" authority="naf">
    <namePart>Woolf, Virginia</namePart>
    <namePart>1882-1941</namePart>
  </name>
  <titleInfo>
    <title>Three Guineas</title>
  </titleInfo>
</subject>
```

#### **<name> [Recommended, if applicable]**

This subelement includes a name used as a subject. All subelements and attributes used under the top-level element <name> may be used; see the <name> section of the guidelines for more information (see page 11).

The DLF Guidelines recommend using an authority attribute to indicate if a name is controlled by a record in an authority file, and recommend that, whenever possible, forms of names be taken from the LC/NACO authority file. Specify explicit authority for <name> at the subelement level.

---

*Examples of <name> use with type and authority attributes:*

```
<subject authority="lcsch">
  <name type="personal" authority="naf">
    <namePart>Frankenthaler, Helen</namePart>
    <namePart type="date">1928-</namePart>
  </name>
  <topic>Criticism and interpretation</topic>
</subject>
```

#### **<geographicCode> [Recommended, if applicable]**

The subelement includes a geographic code associated with the content of a resource. The DLF guidelines recommends the use of a <geographic> or <hierarchicalGeographic> value in addition to <geographicCode> to improve the searchability of a record. The geographic code should be from an established encoding scheme and indicated in the authority attribute.

#### **Attributes:**

**authority [Required]**

The `authority` attribute is used to specify the source of the controlled geographic area code. Values for this attribute are:

```
marcgac
marccountry
iso3166
```

For those not already using MARC, these guidelines recommend using `iso3166` as the `authority` value for `<geographicCode>`.

---

*Examples of `<geographicCode>` use, with `authority` attribute:*

```
<subject>
  <geographicCode authority="iso3166">us</geographicCode>
</subject>
```

**`<cartographics>` [No Recommendation]**

The *MODS User Guidelines* defines `<cartographics>` as a wrapper element that includes cartographic data indicating spatial coverage. If desired, cartographic elements may be bound together with a geographic name (hierarchical or otherwise) within a `<subject>` element. This subelement has no attributes.

This subelement is not fully developed: specific recommendations for its use are not possible at this point. Use established standards in your area to guide use of this subelement.

**Subelements:**

The following subelements are defined for `<cartographics>`:

**`<coordinates>`** contains a statement of coordinates: 1 coordinate indicates a point; 2 coordinates indicate a line; 3 or more coordinates indicate bounded space.

**`<scale>`** contains a statement of scale

**`<projection>`** contains a statement of projection. Used for algorithms that display a curved surface on a flat surface

See the *MODS User Guidelines* for more information on using these subelements.

---

*Examples of `<cartographics>` use:*

```
<subject>
  <cartographics>
    <coordinates>E 72°--E 148°/N 13°--N 18°</coordinates>
    <scale>1:22,000,000</scale>
    <projection>Conic proj</projection>
  </cartographics>
</subject>
```

### **<occupation> [No recommendation]**

This subelement includes a term that is descriptive of the occupation reflected in the contents of the described materials. It is not used to list the occupations of the creators of the described materials, unless those occupations are significantly reflected in the materials themselves or bear some relationship to the materials. This subelement has no attributes; specify authority at the <subject> level.

The DLF guidelines make no recommendation on the use of this element.

---

#### *Examples of <occupation> use:*

With LCSH listed as authority at the <subject> level:

```
<subject authority="lcsch">
  <occupation>Migrant laborers</occupation>
  <topic>School district case files</topic>
</subject>
```

With AAT listed as authority at the <subject> level:

```
<subject authority="aat">
  <occupation>printmaker</occupation>
</subject>
```

## **MAPPING TO DUBLIN CORE**

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>52</sup> suggests the following crosswalks between MODS element <subject> and simple Dublin Core elements. Subelements <topic>, <name>, and <occupation> map to <dc:subject>. Subelements <geographic>, <temporal>, <hierarchicalGeographic>, and <cartographics> map to <dc:coverage>. The MODS <subject> subelements <titleInfo> and <geographicCode> do not map to simple Dublin Core elements.

MODS <subject> subelements	DC elements
<topic> <name> <occupation>	<dc:subject>
<geographic> <temporal> <hierarchicalGeographic> <geographicCode> <cartographics>	<dc:coverage>
<titleInfo>	[no field suggested]

---

<sup>52</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html>>. Accessed 2005-08-25.

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The Subjects/Topics section in the DLF/NSDL *Best Practices for Shareable Metadata* discusses the use of subjects.<sup>53</sup> Also relevant is the discussion of "Providing supplemental information to service providers."

---

<sup>53</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?SubjectPractices>

## <classification>

MODS Element	Subelements
<classification>	There are no subelements for <classification>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend the use of the <classification> element when applicable. This element is repeatable.

## DEFINITION FROM MODS USER GUIDELINES<sup>54</sup>

"classification" contains the classification number of a resource.

## DISCUSSION OF USE

The <classification> element is recommended in these guidelines and is about the digital resource being described. <classification> has no subelements. Repeat <classification> as needed.

The DLF guidelines recommend that <classification> contain only classification numbers and call numbers whose authorities are referenced in the Library of Congress "Source Codes for Classification."<sup>55</sup> Local classification schemes and identifiers should be included in the <identifier> element.

### Attributes:

#### **authority [RECOMMENDED]**

All occurrences of the MODS <classification> element should contain the attribute *authority* to indicate the name of the classification scheme used in the element. Values for this attribute should come from the Library of Congress "Source Codes for Classification" referenced above.

#### **edition [RECOMMENDED IF APPLICABLE]**

This attribute designates the edition of the classification scheme named in the *authority* attribute if said scheme is issued in editions.

---

*Examples of <classification> use:*

Library of Congress classification:

---

<sup>54</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

<sup>55</sup> <http://www.loc.gov/marc/sourcecode/classification/classificationsource.html>



```
<classification authority="lcc">TH6493</classification>
```

Dewey Decimal classification:

```
<classification authority="ddc" edition="11">683</classification>
```

National Library of Medicine classification:

```
<classification authority="nlm">QW 161.5.S8</classification>
```

Universal decimal classification:

```
<classification authority="udc">669.183.211.18</classification>
```

## MAPPING TO DUBLIN CORE

MODS `<classification>` element is mapped to `<dc:subject>` in *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>56</sup>. The DLF guidelines recommend following this mapping.

**MODS examples above in Dublin Core:**

```
<dc:subject>TH6493</dc:subject>
```

```
<dc:subject>683</dc:subject>
```

```
<dc:subject>QW 161.5.S8</dc:subject>
```

```
<dc:subject>669.183.211.18</dc:subject>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Although related to the section, Recording Subjects in OAI Records<sup>57</sup>, Classification of resources is not directly addressed in the DLF/NSDL *Best Practices for Shareable Metadata*.

---

<sup>56</sup> The crosswalk is available on line at <http://www.loc.gov/standards/mods/mods-dcsimple.html/>. Accessed 2005-08-08.

<sup>57</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?SubjectPractices>

## <relatedItem>

MODS Element	Subelements
<relatedItem>	All MODS elements can appear as subelements of <relatedItem>.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend the use of the <relatedItem> element in three cases:

1. to record characteristics of additional formats of the item as described elsewhere in these guidelines.
2. to point to a full metadata record for a related item
3. to provide contextual information useful for full description of the resource.

This element is repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>58</sup>

"relatedItem" gives information that identifies a related resource.

## DISCUSSION OF USE

Although the MODS <relatedItem> element allows multiple items to be described in a hierarchical fashion within a single MODS record, the guidelines recommend that the use of the <relatedItem> element be restricted to the three cases described below. Do not use multiple nested <relatedItem> elements to describe an entire collection at the item level within a single MODS record in the OAI environment. As stated in the *MODS User Guidelines*, "deep recursion may be counter-productive."

The core MODS record should describe the resource at the level OAI service providers should return as matches to user queries. Any subelements of the <relatedItem> element should describe related material of only subsidiary interest, helpful for identifying and completely describing a resource, but not needed for retrieval of the resource.

The DLF MODS Implementation Guidelines recommend the use of the <relatedItem> element in the following three cases:

1. To provide information about the same resource in its original analog format, as described elsewhere in these guidelines.
2. To link to records for related items, without duplicating the metadata for these items as subelements of <relatedItem>. No subelements of <relatedItem>

<sup>58</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

should be used in this case.

3. To provide contextual information for the item being described, helpful for understanding an item but not useful for retrieval. Applicable subelements of `<relatedItem>` should be used. Most frequently, these subelements are used to describe a host item, series, or constituent parts of a resource.

### **Attributes:**

#### **type [REQUIRED]**

The `type` attribute describes the relationship between the resource in `<relatedItem>` and the resource in the parent MODS record. The DLF guidelines recommend the following values for each of the recommended uses of `<relatedItem>`:

##### Case 1: Original format

`original` - Use this value for information about the original version of a resource according to the guidelines for other elements.

##### Case 2: Linking

Use any value listed in the MODS *User Guidelines*, as appropriate.

##### Case 3: Context

`host` - Use this value to describe a host or parent resource, for example a book in which an article appears or a collection in which an item belongs

`constituent` - Use this value to describe parts of the resource, except information that falls within the scope of the MODS `<tableOfContents>` element.

`series` - Use this value to describe a named series of which the resource is a part.

#### **xlink:href [RECOMMENDED IF APPLICABLE]**

The `xlink:href` attribute is used to link to external resources. The DLF guidelines recommend that this attribute, when used, contain the URL of a MODS record or an OAI GetRecord request, if available, for a related resource, and that no subelements appear under `<relatedItem>`.

#### **displayLabel [RECOMMENDED]**

The DLF guidelines recommend using the `displayLabel` attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

### **Subelements:**

All MODS elements may appear as subelements of `<relatedItem>`.

---

*Examples of required `<relatedItem>` use:*

## Case 1: Original format

See recommendations for other MODS elements in the guidelines.

## Case 2: Linking

```
<relatedItem displayLabel="Preceding" type="preceding"
  xlink:href="http://hdl.loc.gov/umich.dli.moa/AGE3371" />
```

## Case 3: Context

```
<relatedItem displayLabel="Appears in" type="host">
  <titleInfo>
    <title>Post-Fordism</title>
    <subTitle>A Reader</subTitle>
  </titleInfo>
  <name type="personal">
    <namePart type="given">Ash</namePart>
    <namePart type="family">Amin</namePart>
    <role>
      <roleTerm type="text">editor</roleTerm>
    </role>
  </name>
  <originInfo>
    <dateIssued>1994</dateIssued>
    <publisher>Blackwell Publishers</publisher>
    <place>
      <placeTerm type="text">Oxford</placeTerm>
    </place>
  </originInfo>
  <part>
    <extent unit="page">
      <start>23</start>
      <end>45</end>
    </extent>
  </part>
</relatedItem>
```

## MAPPING TO DUBLIN CORE

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>59</sup> recommends mapping the contents of the `<relatedItem>` element to the `<dc:relation>` element in simple Dublin Core. However, caution in mapping is recommended because `<relatedItem>` elements with many subelements may yield "an incomprehensible value." At the very least, mapping multiple subelements to the single `<dc:relation>` element will require addition of punctuation and re-ordering of elements to achieve the desired result. The *MODS User Guidelines* suggest that the `type` attribute of the `<relatedItems>` element may be used to determine a specialized mapping for each type.

## MODS examples above in Dublin Core:

---

<sup>59</sup> The crosswalk is available on line at <http://www.loc.gov/standards/mods/mods-dcsimple.html/>. Accessed 2005-08-08.

```
<dc:relation>  
http://hdl.loc.gov/umich.dli.moa/AGE3371</dc:relation>  
  
<dc:relation>Amin, Ash, editor. Post-Fordism: A Reader. Oxford:  
Blackwell Publishers, 1994: 23-45.</dc:relation>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The "Describing Versions and Reproductions"<sup>60</sup> and "Bibliographic Citation"<sup>61</sup> pages in the DLF/NSDL *Best Practices for Shareable Metadata* address issues raised by the MODS <relatedItem> element.

---

<sup>60</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?DigitalTactileResource>

<sup>61</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?BibliographicCitation>

## <identifier>

MODS Element	Subelements
<identifier>	There are no subelements for <identifier>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use of at least one <identifier> element with the `type` attribute containing appropriate values in each MODS record. This element is repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>62</sup>

"identifier" contains a unique standard number or code which [sic] distinctively identifies a resource.

## DISCUSSION OF USE

The <identifier> element is required in these guidelines and is about the digital resource being described. <identifier> has no subelements, but does require at least one attribute. Repeat this element as required.

### Attributes:

#### **type [Required]**

All occurrences of the MODS <identifier> element must contain the attribute `type` to indicate the type of the identifier. The DLF guidelines recommend using the following values with the identifier `type` attribute:

- `doi` (Digital Resources Identifier)
- `hdl` (Handle)
- `isbn` (International Standard Book Number)
- `ismn` (International Standard Music Number)
- `isrc` (International Standard Recording Code)
- `issn` (International Standard Serials Number)
- `issue number`
- `istc` (International Standard Text Code)
- `lccn` (Library of Congress Control Number)
- `local`
- `matrix number`
- `music plate`
- `music publisher`

<sup>62</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>. Accessed 2005-08-15.

sici (Serial Item and Contribution Identifier)  
stock number  
upc (Universal Product Code)  
uri (Uniform Resource Identifier)  
videorecording identifier

**invalid [Required when Applicable]**

This attribute should be used only to signify a canceled or invalid identifier. If used, its value must be `yes` (`invalid="yes"`).

**displayLabel [Recommended]**

The DLF guidelines recommend using the `displayLabel` attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

The DLF MODS Implementation Guidelines require that `<identifier>` be used to encode any identifying character string uniquely associated with an resource, but reserves `<location><url>` for encoding one and only one URL to the resource in its repository context. Persistent URIs that serve both as a unique identifier and a URL to the resource in its repository context should be encoded using both elements.

These guidelines require that all `<identifier>` URLs follow the URI specifications laid out in the DLF/NSDL *Best Practices for Shareable Metadata Content*.<sup>63</sup>

---

**Examples of `<identifier>` use:**

Encoding a link to a Web page:

```
<identifier  
type="uri">http://hemi.es.its.nyu.edu/journal/2_1/ramalho_por.htm  
l</identifier>
```

Encoding an obsolete link to the same Web page:

```
<identifier type="uri"  
invalid="yes">http://hemi.tsoa.nyu.edu/journal/2_1/ramalho_por.ht  
ml</identifier>
```

Other examples:

```
<identifier type="lccn">00694010</identifier>
```

```
<identifier type="hdl">hdl:loc.mbrsmi/animp.4068</identifier>
```

---

<sup>63</sup> <http://oai-best.comm.nsdll.org/cgi-bin/wiki.pl?IdentifyingTheResource>

## MAPPING TO DUBLIN CORE

The MODS <identifier> element, along with the <location><URL> subelement, are both mapped to <dc:identifier> in *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>64</sup>. The DLF guidelines recommend following this mapping, with the provisions noted above.

### MODS examples above in Dublin Core:

```
<dc:identifier>http://hemi.es.its.nyu.edu/journal/2\_1/ramalho\_por.html</dc:identifier>
```

```
<dc:identifier>00694010</dc:identifier>
```

```
<dc:identifier>hdl:loc.mbrsmi/animp.4068</dc:identifier>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Identifier is addressed in the "Recommendations for classes of data elements" under "Identifiers."<sup>65</sup> The DLF guidelines recommend the use of the `type` attribute in lieu of prefixing identifiers, as recommended in NSDL/DLF Best Practices.

---

<sup>64</sup> <http://www.loc.gov/standards/mods/mods-dcsimple.html>. Accessed 2005-08-15.

<sup>65</sup> <<http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?IdentifyingTheResource>>. Accessed 2005-08-15.



## <location>

MODS Element	Subelements
<location>	<physicalLocation> <url>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use of one <location> element and one, and only one, <url> subelement in each MODS record. The use of additional <location> elements, each with a <physicalLocation> subelement is optional.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>66</sup>

"location" identifies the institution or repository holding the resource, or a remote location in form of a URL from which it is available.

## DISCUSSION OF USE

For the purposes of records created according to the guidelines, information in <location> is about the digital or physical resource being described. One occurrence of this element is required.

### Subelements:

<physicalLocation> [RECOMMENDED IF APPLICABLE]

Use this subelement to identify the institution or repository holding the resource, or from which it is available. When used in these guidelines, it identifies the physical, institutional home of a digital resource.

### Attributes:

**displayLabel** [RECOMMENDED]

These guidelines recommend using the `displayLabel` attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

**authority** [RECOMMENDED IF APPLICABLE]

---

<sup>66</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

Use this attribute to indicate the controlled vocabulary used for the value in the `<physicalLocation>` subelement. Permissible values for this attribute are `marcorg` and `oclcorg`. Use the naming authority appropriate to each value.<sup>67</sup> If this attribute is not used, the value is assumed to be a natural language name and/or address. In the examples below, the same organization is encoded two different ways, the first using the OCLC code for that organization, the second in natural language form.

---

*Examples of `<physicalLocation>` use:*

```
<location>
  <physicalLocation authority="oclcorg">NNU-
    ME</physicalLocation>
</location>

<location>
  <physicalLocation>New York University, E. H. Bobst
    Library, Middle East Cataloging (New York,
    NY)</physicalLocation>
</location>
```

#### **`<url>` [REQUIRED]**

This subelement contains the Uniform Resource Location (URL) for the resource. The DLF guidelines require the use of one `<location>` element and one, and only one, `<url>` subelement to encode the persistent URL for the digital resource in its repository context.

The guidelines require that all URLs encoded within the `<url>` subelement should follow the URI specifications laid out in the DLF/NSDL *Best Practices for Shareable Metadata Content*.<sup>68</sup>

#### **Attributes:**

##### **`displayLabel` [RECOMMENDED]**

The DLF guidelines recommend using the `displayLabel` attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

##### **`dateLastAccessed` [NOT RECOMMENDED]**

Use this attribute to encode the date the digital resource was last accessed. If used, the date value should be expressed following ISO 8601 [W3CDTF].<sup>69</sup>

---

<sup>67</sup>See <http://www.loc.gov/marc/sourcecode/organization/organizationsource.html>.

<sup>68</sup><http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?IdentifyingTheResource>

<sup>69</sup><http://www.w3.org/TR/NOTE-datetime>.

---

### Examples of <location> use:

```
<location>
  <url>http://hemi.es.its.nyu.edu/journal/2\_1/ramalho\_por.html
</url>
</location>
```

---

## MAPPING TO DUBLIN CORE

The MODS <location><url> subelement, along with the <identifier> element, are both mapped to <dc:identifier> in *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>70</sup>. The DLF guidelines recommend following this mapping, with the provisions noted above.

### MODS example above in Dublin Core:

```
<dc:identifier>http://hemi.es.its.nyu.edu/journal/2\_1/ramalho\_por.html
</dc:identifier>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The <url> subelement of element <location> is addressed in the *Recommendations for Classes of Data Elements* section under "Identifiers"<sup>71</sup> and "Linking from a Record to a Resource"<sup>72</sup> under the *General Recommendations* section.

---

<sup>70</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>. Accessed 2005-08-08.

<sup>71</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?IdentifyingTheResource>

<sup>72</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?AppropriateLinks>

## <accessCondition>

MODS Element	Subelements
<accessCondition>	There are no subelements for <accessCondition>; input data directly into this element.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use of one <accessCondition> element with the `type` attribute containing the value `useAndReproduction` in every MODS record. This element is not repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>73</sup>

"accessCondition" contains information about restrictions imposed on access to a resource.

## DISCUSSION OF USE

For the purposes of records created according to these guidelines, information in <accessCondition> is about the content of the digital resource being described. <accessCondition> is not repeatable.

These guidelines recommend that the content of the <accessCondition> element be written with the considerations below in mind.

The audience for rights relating to possible uses of digital resources is the end user, so your rights information should be as free of legalese and technical jargon as possible. State clearly any restrictions on use of the digital resource, including explicitly mentioning lack of copyright restrictions when the digital resource is in the public domain. Also provide contact information for use by end users who wish to pursue required permissions for publication, exhibit, or other types of dissemination. If you maintain rights information relating to specific digital resources on a web site, you may wish to provide a URL for that web site in lieu of a textual rights statement. When doing so, you should provide enough textual explanation, along with the URL, to make the purpose of the URL clear to end users.<sup>74</sup>

In cases where access to a resource is unrestricted, a statement should appear that says so.

<sup>73</sup> <<http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>>.

<sup>74</sup> <<http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?RightsPractices>>.

## **Attributes:**

### **type [REQUIRED]**

All occurrences of the MODS `<accessCondition>` element must contain this attribute with the value `useAndReproduction` (equivalent to MARC 21 field 540). This value is preferred to `restrictionOnAccess` (equivalent to MARC 21 field 506) because MARC 21 field 540 is explicitly about copyright, while field 506 deals with other sorts of restrictions, such as government classification, that are less likely to be relevant to cultural heritage and humanities oriented materials.

### **displayLabel [RECOMMENDED]**

The DLF guidelines recommend using the `displayLabel` attribute whenever appropriate to indicate the preferred labeling when displayed by a metadata aggregator. Include the text preferred and capitalization, but do not include delimiters such as colons. Metadata aggregators may choose to ignore this attribute.

---

## **Examples of `<accessCondition>` use:**

In cases where access to a resource is restricted:

```
<accessCondition type="useAndReproduction">For rights relating to  
this resource, visit  
http://hemi.nyu.edu/rights.html</accessCondition>
```

```
<accessCondition type="useAndReproduction">This video and the  
performance it captures are the sole property of Grupo Cultural  
Yuyachkani. Information regarding syndication and/or replication  
of this work may be obtained by contacting Grupo Cultural  
Yuyachkani at yuyachkani@terra.com.pe</accessCondition>
```

In cases where access to a public-domain resource is unrestricted:

```
<accessCondition type="useAndReproduction">Use of this public-  
domain resource is unrestricted.</accessCondition>
```

In cases where a repository wishes to grant unrestricted rights to a resource for which it holds copyright:

```
<accessCondition type="useAndReproduction">This repository grants  
to all users a free, irrevocable, worldwide, perpetual right of  
access to, and a license to copy, use, distribute, perform and  
display the resource publicly and to make and distribute  
derivative resources in any digital medium for any purpose, as  
well as the right to make any number of copies for any  
use.</accessCondition>
```

## MAPPING TO DUBLIN CORE

The MODS `<accessCondition>` element is mapped to `<dc:rights>` in *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>75</sup>. The DLF guidelines recommend following this mapping.

### MODS examples above in Dublin Core:

```
<dc:rights>For rights relating to this resource, visit  
http://hemi.nyu.edu/rights.html</dc:rights>
```

```
<dc:rights>This video and the performance it captures are the  
sole property of Grupo Cultural Yuyachkani. Information regarding  
syndication and/or replication of this work may be obtained by  
contacting Grupo Cultural Yuyachkani at  
yuyachkani@terra.com.pe</dc:rights>
```

```
<dc:rights>Use of this public-domain resource is  
unrestricted.</dc:rights>
```

```
<dc:rights>This repository grants to all users a free,  
irrevocable, worldwide, perpetual right of access to, and a  
license to copy, use, distribute, perform and display the  
resource publicly and to make and distribute derivative resources  
in any digital medium for any purpose, as well as the right to  
make any number of copies for any use.</dc:rights>
```

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

Access condition is addressed in the "Recommendations for classes of data elements" under "Rights for resources".<sup>76</sup>

---

<sup>75</sup> <http://www.loc.gov/standards/mods/mods-dcsimple.html>. Accessed 2005-08-15.

<sup>76</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?RightsPractices>. Accessed 2005-08-15.

## <part>

MODS Element	Subelements
<part>	<detail> <extent> <date> <text>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend that the <part> element be used at the highest level in cases where the part of a resource being represented is a physical or structural part of a resource, in contrast to cases where a part is an intellectual part of a resource. This element is repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>77</sup>

"part" is used to provide detailed coding for physical parts of a resource.

## DISCUSSION OF USE

Use the MODS <part> element at the highest level when the MODS record in question refers to either a physical or structural part of a resource, rather than an intellectual part (which should be recorded in various subelements under <title>). A newspaper issue would generally be indicated with <part>, rather than indicating the issue number as part of the title in MODS. The <part> element at the top level would also be used to describe one reel of microfilm in a set, or in any other case in which the part being described is not an intellectual whole by itself. When in doubt, and only part numbers or names are needed, use <title><partNumber> and/or <title><partName>.

### **Attributes:**

There are no attributes associated with the MODS <part> element. See the subelements section, below, for information on attributes associated with various subelements of <part>.

### **Subelements:**

Although the applicability of MODS <part> has changed in MODS 3.1 from MODS 3.0, its subelements remain unchanged. For all subelements of <part>, follow the guidance presented in the MODS *User Guidelines*, except as indicated below.

---

<sup>77</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

**<detail> [RECOMMENDED IF APPLICABLE]**

**<extent> [RECOMMENDED IF APPLICABLE]**

**<date> [RECOMMENDED IF APPLICABLE]**

See the date elements discussion within <originInfo> for guidance on the value and attributes for this subelement.

**<text> [RECOMMENDED IF APPLICABLE]**

---

#### **Examples of <part> use:**

```
<titleInfo>
  <title>Washington observer</title>
</titleInfo>
<part>
  <detail type="volume">
    <number>1</number>
  </detail>
</part>
```

---

## **MAPPING TO DUBLIN CORE**

The *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>78</sup> does not discuss the MODS <part> element. The DLF guidelines recommend adding information within MODS <part> appearing at the highest level of the record to title information when mapping to simple Dublin Core.

## **RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA**

The DLF/NSDL *Best Practices for Shareable Metadata* does not explicitly cover description of parts of resources. Some related issues are discussed on the "Granularity of Description" page.<sup>79</sup>

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<sup>78</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html>>.  
Accessed 2005-08-08.

<sup>79</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?RecordGranularity>



## <extension>

MODS Element	Subelements
<extension>	None specified.

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines recommend against the use of the MODS <extension> element because any subelements within it will likely not be understandable by OAI service providers.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>80</sup>

"extension" is used to provide for additional information not covered by MODS.

## DISCUSSION OF USE

The DLF Guidelines recommend against the use of the MODS <extension> element in records exposed via OAI. Since no restrictions are imposed on the contents of this element, subelements within it will likely not be understandable by OAI service providers. Metadata falling within the scope of <extension> in a local environment should be included within other MODS elements as appropriate or omitted in OAI-harvestable MODS records.

There are no subelements or attributes for the <extension> element.

## MAPPING TO DUBLIN CORE

Subelements under <extension> are not mapped to Dublin Core in the *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*.<sup>81</sup>

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The <extension> element is not discussed in the DLF/NSDL *Best Practices for Shareable Metadata*. However, the section on "Appropriate Representation of Resources" contains some information on what types of information to provide within metadata that is being shared via OAI (or by other means).

<sup>80</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

<sup>81</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>. Accessed 2005-08-08.

## <recordInfo>

MODS Element	Subelements
<recordInfo>	<recordContentSource> <recordCreationDate> <recordChangeDate> <recordIdentifier> <recordOrigin> <languageOfCataloging>

## SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use of one <recordInfo> element with the subelement <languageOfCataloging> to record the language of the text in the MODS record. The <recordContentSource> and <recordOrigin> subelements are recommended. <recordInfo> is not repeatable.

## DEFINITION FROM *MODS USER GUIDELINES*<sup>82</sup>

"recordInfo" is a wrapper element that contains subelements relating to information necessary for managing metadata.

## DISCUSSION OF USE

In general, it is useful for a service provider to have some information about the metadata record itself. This type of administrative information can help establish the provenance of a metadata record and may enable better interpretation of the content of a metadata record.

<recordInfo> is a wrapper element. It should be used to record information about the metadata record that may help a service provider understand or manage the record. <recordInfo> may also include information that is relevant only to the creating or managing institution; ideally this type of information would not be included in the record shared with others. The recommendations for each of the six subelements below make specific mention of the types of information useful to service providers. There should be only one <recordInfo> element per MODS record.

Within the OAI context, information about the metadata record may also be recorded in an optional <about> container outside of the <metadata> container. The information contained in the MODS <recordInfo> may be repeated in the <about> container for the MODS record, but is not required.

### **Subelements:**

---

<sup>82</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

**<recordContentSource> [Recommended]**

This subelement contains the code or name of the organization that either created or modified the original record. This information can be useful to trace the provenance of a particular metadata record, particularly if the record has been re-exposed via an aggregator. The name or code should be pulled from an authoritative list and indicated in the `authority` attribute.

**Attributes:**

**`authority` [Recommended]**

The name of the authoritative list for a controlled value is recorded here. The Library of Congress maintains "Organization Source Codes."<sup>83</sup> If the `authority` attribute is not included, the value is presumed to be textual (for example, a name of an institution).

**<recordCreationDate> [No recommendation]**

**<recordChangeDate> [No recommendation]**

These subelements are used to record the date the original MODS record was created and last modified, respectively. The DLF guidelines make no specific recommendation on their use. Within the OAI context, service providers are more likely to rely on the `<datestamp>` within the OAI header for information about when the record was created or last modified than these dates.

If either or both of these subelements is used, the guidelines recommend following the guidelines outlined in the `<originInfo>` element (see page 19). The one exception is that neither of these subelements should be identified as the `keyDate`.

**Attributes: (see <originInfo> for guidelines)**

**`encoding` [Recommended]**

**`point` [Recommended if applicable]**

**`keyDate` [Not Recommended]**

**`qualifier` [Recommended if applicable]**

**<recordIdentifier> [No recommendation]**

This subelement contains the system control number assigned by the organization creating, using, or distributing the record. The DLF guidelines make no specific recommendation on its use. Within the OAI context, service providers are likely to rely on the `<identifier>` in the OAI header, rather than the `<recordIdentifier>`. If `<recordIdentifier>` is used, the guidelines recommend the use of the `source` attribute if possible.

**Attributes:**

---

<sup>83</sup> <http://www.loc.gov/marc/sourcecode/organization/organizationsource.html>

### **source [Recommended]**

This attribute contains the code or name of the organization whose system control number is located in the `<recordIdentifier>` element. The source name should be from a controlled list<sup>84</sup> if possible, although there is not a way to indicate the controlled list.

### **`<recordOrigin>` [Recommended]**

This subelement contains information about the origin, or provenance of the MODS record including how it was generated and what transformations have been applied. The information here can be useful for a service provider to understand specific encoding conventions within element values or why certain types of information appear in certain places (for example, if the MODS record was transformed from a MARC record using the standard Library of Congress stylesheet). The DLF guidelines recommend using free text with the stipulation that values be understandable outside of the local context of the creating institution.

### **`<languageOfCataloging>` [Required]**

This subelement is a wrapper element for the language of the text of the cataloging in the MODS record. The guidelines require the use of this subelement and its subelement `<languageTerm>` to record the primary language of the values found within MODS elements. If additional language(s) are used this should be indicated with the `lang` attribute within the specific top-level element(s) in which the additional language(s) appears (see page 70).

### **`<languageTerm>` [Required]**

This subelement contains the language of the text of the cataloging in the MODS record. The guidelines require the `authority` attribute.

#### **Attributes:**

#### **`authority` [Required]**

The guidelines require using the value `iso639-2b` for this attribute if `<languageOfCataloging>` is used.

---

### **Example of `<recordInfo>` use:**

```
<recordInfo>
  <recordContentSource authority="oclcorg">
    UIU</recordContentSource>
  <recordOrigin>Record has been transformed into MODS from a
    qualified Dublin Core record using a stylesheet available at
```

---

<sup>84</sup> <http://www.loc.gov/marc/sourcecode/organization/organizationsource.html>

```
http://www.sample.edu/. Metadata originally created in a
locally modified version of qualified Dublin Core (data
dictionary available: http://www.sample.edu/.)</recordOrigin>
<languageOfCataloging>
    <languageTerm authority= "iso639-2">eng</languageTerm>
</languageOfCataloging>
</recordInfo>
```

---

## MAPPING TO DUBLIN CORE

The DLF Guidelines and the *MODS to Dublin Core Metadata Element Set Mapping Version 3.0 (June 7, 2005)*<sup>85</sup> make no recommendations about mapping <recordInfo> to a simple Dublin Core element. For the purposes of the required Dublin Core records within the OAI context, information contained within a MODS <recordInfo> element could be mapped to an OAI <about> container for each OAI Dublin Core record disseminated from a MODS item, or, alternatively, this information is documented in a publicly accessible place and referenced from the <about> container or the <setDescription>.

However, the DLF MODS Implementation Guidelines do recommend documenting cataloging decisions in a publicly accessible location so that service providers can better interpret metadata records.

## RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA

The DLF/NSDL *Best Practices for Shareable Metadata* discuss issues related to <recordInfo> in the "Providing Supplemental Documentation to OAI Service Providers" section.<sup>86</sup>

---

<sup>85</sup> The crosswalk is available on line at <<http://www.loc.gov/standards/mods/mods-dcsimple.html/>>.

<sup>86</sup> <http://oai-best.comm.nsd.org/cgi-bin/wiki.pl?PublicTOC>

## Common Attributes

Attributes
lang
xml:lang
script
transliteration
ID
xlink

### SUMMARY OF REQUIREMENTS

The DLF MODS Implementation Guidelines require the use of the `lang` attribute when a language is used in the value of an element that is not the same as that indicated in the `<languageOfCataloging>` subelement of the `<recordOrigin>` element. The use of the `xml:lang` attribute is not recommended. The DLF guidelines recommend the use of the `script` and `transliteration` attributes when applicable. The guidelines have no recommendation on the `ID` attribute. The guidelines recommend the use of the `xlink` attribute when applicable, particularly within the `<relatedItem>` or `<tableOfContents>` elements.

The common attributes for elements relating to dates are covered in the applicable sections.

### DEFINITION FROM *MODS USER GUIDELINES*<sup>87</sup>

See <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html#list>.

### DISCUSSION OF USAGE

#### `lang` [Required if applicable]

The `lang` attribute should be used when a language is used in the value of an element that is not the same as that indicated in the `<languageOfCataloging>` subelement of the `<recordOrigin>` element. The value for the attribute must be taken from ISO 639-2/b.<sup>88</sup>

#### `xml:lang` [Not recommended]

The use of the `xml:lang` attribute is not recommended.

#### `script` [Recommended when applicable]

#### `transliteration` [Recommended when applicable]

---

<sup>87</sup> <http://www.loc.gov/standards/mods/v3/mods-userguide-generalapp.html>

<sup>88</sup> <http://www.loc.gov/standards/iso639-2/>

Use of the `script` and `transliteration` attributes are recommended only when applicable. Note that there is no standard list of transliteration schemes available; the value of this attribute may be limited until one is developed.

#### **id [No recommendation]**

The DLF guidelines make no recommendation on the use of the `id` attribute at this point.

#### **xlink [Recommended when applicable]**

The DLF guidelines recommend the use of the `xlink` attribute in cases where there is a need to reference an external resource such as a second metadata record. See `<relatedItem>` (page 50) or `<tableOfContents>` (page 31) for examples.

### **MAPPING TO DUBLIN CORE**

The common attributes described here cannot be mapped to unqualified Dublin Core elements.

### **RELATIONSHIP TO DLF/NSDL BEST PRACTICES FOR SHAREABLE METADATA**

None of the common attributes are specifically discussed in the DLF/NSDL Best Practices for Shareable Metadata. However, the general issues around documenting how metadata values are recorded are discussed in the Providing Supplemental Information to a Service Provider section.<sup>89</sup>

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<sup>89</sup> <http://oai-best.comm.nsdsl.org/cgi-bin/wiki.pl?DocumentingSource>

## Full MODS Examples Encoded to These Guidelines

### NOTE ON THESE EXAMPLES

Source records for these examples were borrowed with permission from Indiana University Bloomington, the Library of Congress, and the University of Illinois at Urbana-Champaign. Some content and encoding in the examples has been altered from the original to insure that they adhere to the recommendations in these guidelines. The examples are illustrative, not prescriptive, and their inclusion is intended only to assist in understanding how these guidelines might be applied.

Examples are supplied for the following types of materials:

- book
- film
- map
- photograph
- print
- sheet music
- physical artifact

### Example 1: Record for a book (Library of Congress)

```
<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-0.xsd">
  <titleInfo>
    <title>Letters of a volunteer in the Spanish-American war</title>
  </titleInfo>
  <name type="personal" authority="naf">
    <namePart>King, George G. (George Glenn)</namePart>
    <role>
      <roleTerm authority="marcrelator"
        type="text">creator</roleTerm>
    </role>
  </name>
  <typeOfResource>text</typeOfResource>
  <genre authority="aat">monographs</genre>
  <genre authority="aat">correspondence</genre>
  <originInfo>
    <place>
      <placeTerm type="code" authority="marccountry">ilu</placeTerm>
      <placeTerm type="text">Illinois</placeTerm>
    </place>
    <place>
      <placeTerm type="text">Chicago</placeTerm>
    </place>
    <publisher>Hawkins & Loomis</publisher>
    <dateIssued encoding="w3cdtf" keyDate="yes">1929</dateIssued>
    <issuance>monographic</issuance>
```



```

</originInfo>
<language>
  <languageTerm type="text">English</languageTerm>
  <languageTerm authority="iso639-2b"
    type="code">eng</languageTerm>
</language>
<physicalDescription>
  <extent>All pages of the original have been digitized.</extent>
  <internetMediaType>text/html</internetMediaType>
  <internetMediaType>image/jpeg</internetMediaType>
  <internetMediaType>image/tiff</internetMediaType>
  <digitalOrigin>reformatted digital</digitalOrigin>
</physicalDescription>
<abstract>
This book is a collection of letters written home by George King, an
American soldier who served in the Puerto Rican campaign during the
Spanish-American War. At the outbreak of the War, King volunteered
in the Sixth Regiment of Infantry formed in Concord, Massachusetts.
He rose quickly to the rank of sergeant. King describes in some
detail the life of a soldier during the war, including the kind and
extent of training received, and the lean diet and physical
hardships of campaigning in Puerto Rico. King's letters are
interspersed with notes and explanatory commentary that puts his
letters in perspective. Some of his letters and commentaries
describe the interrelationships between American soldiers and the
inhabitants of Puerto Rico during the War. He pointed out, for
example, that the Americans hired native Puerto Ricans, who rendered
the army efficient and valuable service as mounted scouts.
</abstract>
<note displayLabel="Statement of responsibility">[by] George G.
King.</note>
<subject>
  <geographicCode authority="marcgac">n-us---</geographicCode>
</subject>
<subject authority="lcsch">
  <topic>Spanish-American War, 1898</topic>
  <topic>Personal narratives</topic>
</subject>
<classification authority="lcc">E729 .K54</classification>
<relatedItem type="original">
  <physicalDescription>
    <extent>3 p.l., [5]-133 p. 23 cm.</extent>
  </physicalDescription>
  <note>Original publication from which this digital surrogate was
    created is available at the Library of Congress.</note>
</relatedItem>
<identifier type="lccn">30012858</identifier>
<identifier type="hdl">hdl:loc.gdc/lhbpr.12858</identifier>
<location>
  <url>http://hdl.loc.gov/loc.gdc/lhbpr.12858</url>
</location>
<accessCondition type="useAndReproduction">For information on rights
relating to this resource, visit http://memory.loc.gov/cgi-bin/ammemrr.pl?title=%3ca%20href%3d%22%2fammem%2fprhtml%2fprhome.htm%22%3ePuerto%20Rico%20at%20the%20Dawn%20of%20the%20Modern%20Age%3a%20Nineteenth-%20and%20Early-Twentieth

```

```

Century%20Perspectives%3c%2fa%3e&coll=lhsprbib&div=&agg=lhspr&default=ammem&dir=ammem</accessCondition>
<recordInfo>
  <recordContentSource
    authority="marcorg">DLC</recordContentSource>
  <recordCreationDate encoding="w3cdtf">1982-11-08</recordCreationDate>
  <recordChangeDate encoding="w3cdtf">2002-03-20</recordChangeDate>
  <recordIdentifier source="DLC">30012858</recordIdentifier>
  <recordOrigin>Derived from a MARC record using the Library of Congress stylesheet</recordOrigin>
  <languageOfCataloging>
    <languageTerm authority="iso639-2b">eng</languageTerm>
  </languageOfCataloging>
</recordInfo>
</mods>
</metadata>

```

## Example 2: Record for a film (Library of Congress)

```

<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-0.xsd">
  <titleInfo>
    <title>Dud leaves home</title>
  </titleInfo>
  <titleInfo type="alternative" displayLabel="Variant title in Library of Congress video collection">
    <title>Us fellers: "Dud leaves home"</title>
  </titleInfo>
  <titleInfo type="alternative" displayLabel="Copyright title">
    <title>Goldwyn-Bray Pictographs, no. 7009</title>
  </titleInfo>
  <name type="personal" authority="naf">
    <namePart>Carlson, Wallace</namePart>
    <namePart type="date">d. 1967</namePart>
    <role>
      <roleTerm authority="marcrelator" type="text">animator</roleTerm>
    </role>
    <role>
      <roleTerm authority="marcrelator" type="text">scenarist</roleTerm>
    </role>
  </name>
  <name type="corporate" authority="naf">
    <namePart>Bray Pictures Corporation</namePart>
  </name>
  <typeOfResource>moving image</typeOfResource>
  <genre authority="marc">motion picture</genre>
  <genre authority="migfg">Comedy-Animation-Short</genre>
  <originInfo>
    <place>
      <placeTerm type="code" authority="marccountry">xxu</placeTerm>
      <placeTerm type="text">United States</placeTerm>
    </place>

```

```

    <publisher>[Bray Pictures Corp.]</publisher>
    <dateIssued encoding="w3cdtf" keyDate="yes"
    qualifier="inferred">1919</dateIssued>
    <issuance>monographic</issuance>
</originInfo>
<language>
    <languageTerm type="text">English</languageTerm>
    <languageTerm authority="iso639-2b"
    type="code">eng</languageTerm>
</language>
<physicalDescription>
    <extent>The entire content of the original has been digitized.
    </extent>
    <internetMediaType>video/mpeg</internetMediaType>
    <internetMediaType>video/quicktime</internetMediaType>
    <digitalOrigin>reformatted digital</digitalOrigin>
</physicalDescription>
<abstract>
Dud wants to buy his girlfriend Maime an ice cream cone so he breaks
open his mother's bank, and splits their last dime in half in the
process. His mother punishes him so he runs away. Dud is scared by
imaginary ghosts in the dark, so he runs back home where he gets a
spanking from his mother.
</abstract>
<note displayLabel="Statement of responsibility">Bray Pictures
Corporation ; animator and writer, Wallace Carlson.</note>
<note>Copyright: Bray Studios, Inc.; 9Oct19; MP1443.</note>
<note>Digital file includes a piano score composed and performed by
Philip Carli.</note>
<note>Duration: 4:57 at 22 fps.</note>
<note>Summary from J. McIntire, Silent animated films at the Library
of Congress, 1995.</note>
<note>Sources used: Copyright catalog, motion pictures, 1912-1939;
Library of Congress video collection, v. 3, Origins of American
animation, 1900-1921; McIntire, J. Silent animated films at the
Library of Congress, 1995; M/B/RS shelflist.</note>
<subject authority="lcsch">
    <topic>Boys</topic>
    <geographic>United States</geographic>
    <topic>Drama</topic>
</subject>
<subject authority="lcsch">
    <topic>Runaway teenagers</topic>
    <geographic>United States</geographic>
    <topic>Drama</topic>
</subject>
<subject authority="lcsch">
    <topic>Mothers and sons</topic>
    <geographic>United States</geographic>
    <topic>Drama</topic>
</subject>
<subject authority="lcsch">
    <topic>Stealing</topic>
    <geographic>United States</geographic>
    <topic>Drama</topic>
</subject>
<subject authority="lcsch">

```

```

    <topic>Discipline of children</topic>
    <geographic>United States</geographic>
    <topic>Drama</topic>
  </subject>
  <subject authority="lcsch">
    <topic>Punishment</topic>
    <topic>Drama</topic>
  </subject>
  <subject authority="lcsch">
    <topic>Ghosts</topic>
    <topic>Drama</topic>
  </subject>
  <classification authority="lcc">FAA 8332 (ref
print)</classification>
  <relatedItem type="original">
    <physicalDescription>
      <extent>1 reel of 1 (ca. 170 ft.) : si., b&w ; 16 mm. ref
print.</extent>
    </physicalDescription>
  </relatedItem>
  <relatedItem type="host" displayLabel="Part of">
    <titleInfo>
      <title>AFI/Marshall (George) Collection (Library of
Congress)</title>
    </titleInfo>
  </relatedItem>
  <relatedItem type="series">
    <titleInfo>
      <title>Us fellers</title>
    </titleInfo>
  </relatedItem>
  <relatedItem type="series">
    <titleInfo>
      <title>Goldwyn-Bray pictographs</title>
    </titleInfo>
  </relatedItem>
  <identifier type="lccn">00694010</identifier>
  <identifier type="hdl">hdl:loc.mbrsmi/animp.4068</identifier>
  <location>
    <url>http://hdl.loc.gov/loc.mbrsmi/animp.4068</url>
  </location>
  <location>
    <physicalLocation>
      Library of Congress Motion Picture, Broadcasting and Recorded
      Sound Division Washington, D. C. 20540 USA
    </physicalLocation>
  </location>
  <accessCondition type="useAndReproduction">For information on rights
relating to this resource, visit
http://www.loc.gov/homepage/legal.html#copyright</accessCondition>
  <recordInfo>
    <recordContentSource
authority="marcorg">DLC</recordContentSource>
    <recordCreationDate encoding="w3cdtf">1999-12-
01</recordCreationDate>
    <recordChangeDate encoding="w3cdtf">2000-12-19</recordChangeDate>
    <recordIdentifier source="DLC">00694010</recordIdentifier>
  </recordInfo>

```

```

        <languageOfCataloging>
          <languageTerm authority="iso639-2b">eng</languageTerm>
        </languageOfCataloging>
      </recordInfo>
    </mods>
  </metadata>

```

### Example 3: Record for a map (Library of Congress)

```

<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-0.xsd">
  <titleInfo>
    <title>Dallas, Texas. With the projected river and navigation
    improvements viewed from above the sister city of Oak
    Cliff</title>
  </titleInfo>
  <name type="personal" authority="naf">
    <namePart type="family">Giroud</namePart>
    <namePart type="given">Paul</namePart>
    <role>
      <roleTerm authority="marcrelator"
      type="text">cartographer</roleTerm>
      <roleTerm authority="marcrelator" type="code">ctg</roleTerm>
    </role>
  </name>
  <name type="corporate" authority="naf">
    <namePart>Dallas Lith. Co.</namePart>
    <role>
      <roleTerm authority="marcrelator"
      type="text">publisher</roleTerm>
      <roleTerm authority="marcrelator" type="code">pbl</roleTerm>
    </role>
  </name>
  <typeOfResource>cartographic</typeOfResource>
  <genre authority="lctgm">panoramic views</genre>
  <originInfo>
    <place>
      <placeTerm type="text">[Dallas?]</placeTerm>
    </place>
    <publisher>Dallas Lith. Co.</publisher>
    <dateIssued encoding="w3cdtf" keyDate="yes">1892</dateIssued>
  </originInfo>
  <language>
    <languageTerm type="text">English</languageTerm>
    <languageTerm authority="iso639-2b"
    type="code">eng</languageTerm>
  </language>
  <physicalDescription>
    <internetMediaType>image/tiff</internetMediaType>
    <digitalOrigin>reformatted digital</digitalOrigin>
  </physicalDescription>
  <note>Perspective map not drawn to scale.</note>
  <note>Bird's-eye-view.</note>
  <note>Reference: LC Panoramic maps (2nd ed.), 907</note>
  <note>Includes illus. and advertisements.</note>

```

```

<subject authority="lcsch">
  <geographic>Dallas (Tex.)</geographic>
  <topic>Aerial views</topic>
</subject>
<subject authority="lcsch">
  <hierarchicalGeographic>
    <country>United States</country>
    <state>Texas</state>
    <city>Dallas</city>
  </hierarchicalGeographic>
</subject>
<classification authority="lcc">G4034.D2A3 1892 .G5</classification>
<relatedItem type="original">
  <physicalDescription>
    <extent>col. map 26 x 53 cm. on sheet 53 x 75 cm.</extent>
  </physicalDescription>
  <location>
    <physicalLocation>Library of Congress Geography and Map
      Division Washington, D.C. 20540-4650 USA</physicalLocation>
  </location>
</relatedItem>
<identifier type="local">g4034d pm009070
http://hdl.loc.gov/loc.gmd/g4034d.pm009070</identifier>
<location>
  <url>http://hdl.loc.gov/loc.gmd/g4034d.pm009070</url>
</location>
<accessCondition type="useAndReproduction">Most maps in the Map
Collections materials were either published prior to 1922, produced
by the United States government, or both (see catalogue records that
accompany each map for information regarding date of publication and
source). A few have permission from the copyright holders as noted
in the descriptive record. The Library of Congress is providing
access to these materials for educational and research purposes and
is not aware of any U.S. copyright protection (see Title 17 of the
United States Code) or any other restrictions in the Map Collection
materials. Note that the written permission of the copyright owners
and/or other rights holders (such as publicity and/or privacy
rights) is required for distribution, reproduction, or other use of
protected items beyond that allowed by fair use or other statutory
exemptions. Responsibility for making an independent legal
assessment of an item and securing any necessary permissions
ultimately rests with persons desiring to use the item.
</accessCondition>
<recordInfo>
  <recordContentSource
    authority="marcorg">MdBJ</recordContentSource>
  <recordCreationDate encoding="w3cdtf">2005-10-
    28</recordCreationDate>
  <recordOrigin>Base MODS record derived from Library of Congress
    American Memory Project record, then edited to conform to the DLF
    MODS Implementation Guidelines for Cultural Heritage
    Materials.</recordOrigin>
  <languageOfCataloging>
    <languageTerm authority="iso639-2b">eng</languageTerm>
  </languageOfCataloging>
</recordInfo>
</mods>

```

</metadata>

#### Example 4: Record for a photograph (Library of Congress)

```
<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-0.xsd">
  <titleInfo>
    <title>
      General view of Balaklava, the hospital on the right
    </title>
  </titleInfo>
  <name type="personal" authority="naf">
    <namePart>Fenton, Roger</namePart>
    <namePart type="date">1819-1869</namePart>
    <role>
      <roleTerm authority="marcrelator"
        type="text">creator</roleTerm>
    </role>
    <role>
      <roleTerm authority="marcrelator"
        type="text">photographer</roleTerm>
    </role>
  </name>
  <typeOfResource>still image</typeOfResource>
  <genre authority="gmGPC">Salted paper prints-1850-1860.</genre>
  <originInfo>
    <place>
      <placeTerm type="code" authority="marccountry">enk</placeTerm>
      <placeTerm type="text">England</placeTerm>
    </place>
    <dateIssued encoding="w3cdtf" keyDate="yes"
      qualifier="inferred">1855</dateIssued>
    <issuance>monographic</issuance>
  </originInfo>
  <language>
    <languageTerm type="text">English</languageTerm>
    <languageTerm authority="iso639-2b"
      type="code">eng</languageTerm>
  </language>
  <physicalDescription>
    <extent>The entire content of the original has been digitized.
    </extent>
    <internetMediaType>image/jpeg</internetMediaType>
    <internetMediaType>image/tiff</internetMediaType>
    <digitalOrigin>reformatted digital</digitalOrigin>
  </physicalDescription>
  <abstract>
    Includes buildings in the foreground, a view of the harbor, and
    military tents scattered on the hills to the left in the background.
  </abstract>
  <note>Title transcribed from verso.</note>
  <note>Roger Fenton, photographer of the Crimean War: His photographs
  and his letters from the Crimea, with an essay on his life and work
  / Helmut and Alison Gernsheim. London : Secker & Warburg, 1954, no.
  21.</note>
```

```

<subject>
  <geographicCode authority="marcgac">e-un---</geographicCode>
</subject>
<subject authority="lcsch">
  <topic>Crimean War, 1853-1856</topic>
</subject>
<subject authority="lctgm">
  <topic>Cities & towns</topic>
  <geographic>Ukraine</geographic>
  <geographic>Balaklava</geographic>
  <temporal>1850-1860</temporal>
</subject>
<subject authority="lcsch">
  <geographic>Balaklava (Ukraine)</geographic>
  <temporal>1850-1860</temporal>
</subject>
<classification authority="lcc">PH - Fenton (R.), no.
81</classification>
<relatedItem type="original">
  <physicalDescription>
    <extent>1 photographic print : salted paper ; 30 x 36
    cm.</extent>
  </physicalDescription>
</relatedItem>
<relatedItem type="host">
  <titleInfo>
    <title>Roger Fenton Crimean War photograph collection</title>
  </titleInfo>
  <name>
    <namePart>Fenton, Roger, 1819-1869.</namePart>
  </name>
  <identifier type="local">(DLC) 2001696100</identifier>
  <note>Purchase; Frances M. Fenton; 1944.</note>
  <accessCondition type="restrictionOnAccess">Restricted access:
Materials extremely fragile; Served by appointment
only.</accessCondition>
</relatedItem>
<identifier type="lccn">2001698800</identifier>
<identifier type="stock number">LC-USZC4-9198 DLC</identifier>
<identifier type="stock number">LC-USZ62-2370 DLC</identifier>
<identifier type="hdl" displayLabel="color film copy
transparency">hdl:loc.pnp/cph.3g09198</identifier>
<identifier type="hdl" displayLabel="b&w film copy
neg.">hdl:loc.pnp/cph.3a06070</identifier>
<location>
  <url>http://hdl.loc.gov/loc.pnp/cph.3g09198</url>
</location>
<location>
  <physicalLocation>Library of Congress Prints and Photographs
Division Washington, D.C. 20540
USA</physicalLocation>
</location>
<accessCondition type="useAndReproduction">No known restrictions on
publication.</accessCondition>
<recordInfo>
  <recordContentSource
authority="marcorg">DLC</recordContentSource>

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```

    <recordCreationDate encoding="w3cdtf">2001-07-
    25</recordCreationDate>
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    <recordIdentifier source="DLC">2001698800</recordIdentifier>
    <recordOrigin>Derived from a MARC record using the Library of
    Congress stylesheet</recordOrigin>
    <languageOfCataloging>
      <languageTerm authority="iso639-2b">eng</languageTerm>
    </languageOfCataloging>
  </recordInfo>
</mods>
</metadata>

```

### Example 5: Record for a print (Library of Congress)

```

<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-0.xsd">
  <titleInfo>
    <title>Freedom of expression, of religion, from want, from fear
    everywhere in the world</title>
  </titleInfo>
  <name type="corporate" authority="naf">
    <namePart>Federal Art Project</namePart>
    <role>
      <roleTerm authority="marcrelator"
      type="text">sponsor</roleTerm>
      <roleTerm authority="marcrelator" type="code">spn</roleTerm>
    </role>
  </name>
  <typeOfResource>still image</typeOfResource>
  <genre authority="lctgm">posters</genre>
  <genre authority="lcsh">Posters--1930-1950</genre>
  <genre authority="lcsh">Screen prints--Color--1930-1950</genre>
  <originInfo>
    <place>
      <placeTerm type="text">Penn[sylvania]</placeTerm>
    </place>
    <publisher>Penna Art WPA</publisher>
    <dateIssued>[between 1936 and 1941]</dateIssued>
    <dateIssued encoding="w3cdtf" point="start" keyDate="yes"
    qualifier="approximate">1936</dateIssued>
    <dateIssued encoding="w3cdtf" point="end">1941</dateIssued>
  </originInfo>
  <language>
    <languageTerm type="text">English</languageTerm>
    <languageTerm authority="iso639-2b"
    type="code">eng</languageTerm>
  </language>
  <physicalDescription>
    <internetMediaType>image/tiff</internetMediaType>
    <digitalOrigin>reformatted digital</digitalOrigin>
  </physicalDescription>
  <abstract>Poster promoting President Franklin Delano Roosevelt's
  four freedoms, showing a globe, two books, and the hand and torch
  from the Statue of Liberty.</abstract>

```

<note>Exhibited in: American Responses to Nazi Book Burning, U.S. Holocaust Memorial Museum, Washington, D.C., 2003.</note>

<subject authority="lcsch">

  <name type="personal">

    <namePart>Roosevelt, Franklin D. (Franklin Delano), 1882-1945</namePart>

  </name>

</subject>

<subject authority="lcsch">

  <topic>Liberty</topic>

  <temporal>1930-1950</temporal>

</subject>

<subject authority="lcsch">

  <topic>Freedom of speech</topic>

  <geographic>United States</geographic>

  <temporal>1930-1950</temporal>

</subject>

<subject authority="lcsch">

  <topic>Freedom of religion</topic>

  <geographic>United States</geographic>

  <temporal>1930-1950</temporal>

</subject>

<classification authority="lcc">POS - WPA - PA .01 .F7439, no. 1</classification>

<relatedItem type="original">

  <physicalDescription>

    <extent>1 print on board (poster) : silkscreen, color.</extent>

  </physicalDescription>

  <location>

    <physicalLocation>Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA </physicalLocation>

  </location>

</relatedItem>

<relatedItem type="host" displayLabel="Part of">

  <titleInfo>

    <title>Work Projects Administration Poster Collection (Library of Congress)</title>

  </titleInfo>

</relatedItem>

<identifier type="local">cph 3f05436

<http://hdl.loc.gov/loc.pnp/cph.3f05436> </identifier>

<location>

  <url><http://hdl.loc.gov/loc.pnp/cph.3f05436></url>

</location>

<accessCondition type="useAndReproduction">Most maps in the Map Collections materials were either published prior to 1922, produced by the United States government, or both (see catalogue records that accompany each map for information regarding date of publication and source). A few have permission from the copyright holders as noted in the descriptive record. The Library of Congress is providing access to these materials for educational and research purposes and is not aware of any U.S. copyright protection (see Title 17 of the United States Code) or any other restrictions in the Map Collection materials. Note that the written permission of the copyright owners and/or other rights holders (such as publicity and/or privacy rights) is required for distribution, reproduction, or other use of

protected items beyond that allowed by fair use or other statutory exemptions. Responsibility for making an independent legal assessment of an item and securing any necessary permissions ultimately rests with persons desiring to use the item.

```
</accessCondition>
<recordInfo>
  <recordContentSource
    authority="marcorg">MdBJ</recordContentSource>
  <recordCreationDate encoding="w3cdtf">2005-10-
    28</recordCreationDate>
  <recordOrigin>Base MODS record derived from Library of Congress
    American Memory Project record, then edited to conform to the DLF
    MODS Implementation Guidelines for Cultural Heritage
    Materials.</recordOrigin>
  <languageOfCataloging>
    <languageTerm authority="iso639-2b">eng</languageTerm>
  </languageOfCataloging>
</recordInfo>
</mods>
</metadata>
```

### Example 6: Record for sheet music (Indiana University Bloomington)

```
<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-1.xsd">
  <titleInfo>
    <title>Spring and fall</title>
    <subTitle>a tone poem</subTitle>
  </titleInfo>
  <titleInfo type="alternative" displayLabel="Alternative title">
    <title>Spring was here</title>
  </titleInfo>
  <name type="personal" authority="naf">
    <namePart>Berlin, Irving</namePart>
    <namePart type="date">1888-</namePart>
    <role>
      <roleTerm authority="marcrelator"
        type="text">Composer</roleTerm>
      <roleTerm authority="marcrelator" type="code">cmp</roleTerm>
    </role>
  </name>
  <name type="personal" authority="naf">
    <namePart>Buck, Gene.</namePart>
    <role>
      <roleTerm authority="marcrelator"
        type="text">Illustrator</roleTerm>
      <roleTerm authority="marcrelator" type="code">ill</roleTerm>
    </role>
  </name>
  <typeOfResource>notated music</typeOfResource>
  <genre authority="lcsh">Love songs</genre>
  <originInfo>
    <place>
      <placeTerm type="code" authority="marccountry">nyu</placeTerm>
      <placeTerm type="text">New York</placeTerm>
    </place>
  </originInfo>
</mods>
</metadata>
```

```

    </place>
    <publisher>Ted Snyder Co.</publisher>
    <copyrightDate encoding="w3cdtf"
    keyDate="yes">1912</copyrightDate>
    <issuance>monographic</issuance>
  </originInfo>
  <language>
    <languageTerm type="text">English</languageTerm>
    <languageTerm authority="iso639-2b"
    type="code">eng</languageTerm>
  </language>
  <physicalDescription>
    <internetMediaType>image/jpeg</internetMediaType>
    <digitalOrigin>reformatted digital</digitalOrigin>
  </physicalDescription>
  <note displayLabel="Statement of responsibility">by Irving
  Berlin.</note>
  <note>For voice and piano.</note>
  <note>Illustration by Gene Buck.</note>
  <note>First line: The Spring was here.</note>
  <note>Publisher's advertising includes musical incipits.</note>
  <subject authority="lcsht">
    <topic>Songs with piano</topic>
  </subject>
  <relatedItem type="original">
    <physicalDescription>
      <form authority="marcform">print</form>
      <extent>1 score (5 p.) : ill. ; 35 cm.</extent>
    </physicalDescription>
  </relatedItem>
  <identifier
  type="uri">http://purl.dlib.indiana.edu/iudl/lilly/starr/LL-SSM-
  ALD3729</identifier>
  <location>
    <physicalLocation>Lilly Library, Indiana University
    Bloomington</physicalLocation>
    <url>http://purl.dlib.indiana.edu/iudl/lilly/starr/LL-SSM-
    ALD3729</url>
  </location>
  <accessCondition type="useAndReproduction">Use of this public-domain
  resource is unrestricted.</accessCondition>
  <recordInfo>
    <recordContentSource
    authority="marcorg">IUL</recordContentSource>
    <recordCreationDate encoding="w3cdtf">1999-03-
    29</recordCreationDate>
    <recordIdentifier source="InU-Li">LL-SSM-
    ALD3729</recordIdentifier>
    <recordOrigin>Base MODS record derived from MARC21 record, then
    edited to conform to the DLF MODS Implementation Guidelines for
    Cultural Heritage Materials.</recordOrigin>
    <languageOfCataloging>
      <languageTerm authority="iso639-2b">eng</languageTerm>
    </languageOfCataloging>
  </recordInfo>
</mods>
</metadata>

```

## Example 7: Record for a physical artifact (University of Illinois at Urbana-Champaign)

```
<metadata>
<mods xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-1.xsd">
  <titleInfo>
    <title> Life Mask of Stephen A. Douglas</title>
  </titleInfo>
  <name type="personal" authority="naf">
    <namePart>Volk, Leonard Wells</namePart>
    <namePart type="date">1828-1895</namePart>
    <role>
      <roleTerm authority="marcrelator"
type="text">Sculptor</roleTerm>
      <roleTerm authority="marcrelator" type="code">scl</roleTerm>
    </role>
  </name>
  <typeOfResource>three dimensional resource</typeOfResource>
  <genre authority="aat">life masks</genre>
  <genre authority="aat">casts (sculpture)</genre>
  <originInfo>
    <dateCreated encoding="w3cdtf" keyDate="yes"
qualifier="approximate">1857</dateCreated>
  </originInfo>
  <physicalDescription>
    <internetMediaType>image/jpeg</internetMediaType>
    <digitalOrigin>reformatted digital</digitalOrigin>
  </physicalDescription>
  <abstract>This is a life mask of Stephen A. Douglas created by
Leonard Volk in 1857. Douglas, who was related to Volk by marriage,
sent him to Rome in 1856 to perfect his craft. Upon Volk's return in
1857, he made a life mask of Douglas.</abstract>
  <subject authority="lcsh">
    <name type="personal" authority="naf">
      <namePart>Douglas, Stephen Arnold</namePart>
      <namePart type="date">1813-1861</namePart>
    </name>
  </subject>
  <relatedItem type="original">
    <physicalDescription>
      <form authority="gmd">art original</form>
    </physicalDescription>
  </relatedItem>
  <identifier type="uri">
http://images.library.uiuc.edu:8081/u?/tdc,252</identifier>
  <location>
    <physicalLocation>University of Illinois at Urbana-Champaign.
Library. Rare Book Room</physicalLocation>
    <url>http://images.library.uiuc.edu:8081/u?/tdc,252</url>
  </location>
  <accessCondition type="useAndReproduction">Use of this public-domain
resource is unrestricted.</accessCondition>
  <recordInfo>
    <recordContentSource authority="marcorg">IU</recordContentSource>
  </recordInfo>
</mods>
</metadata>
```

```
<recordOrigin>Mapped from a Qualified Dublin core record to  
MODS.</recordOrigin>  
<languageOfCataloging>  
  <languageTerm authority="iso639-2b">eng</languageTerm>  
</languageOfCataloging>  
</recordInfo>  
</mods>  
</metadata>
```