Dublin Core Best Practice Guidelines

Version 2.3
January 29, 2018

Orbis Cascade Alliance Dublin Core Best Practice Guidelines

The purpose of the Orbis Cascade Alliance's Dublin Core Best Practices Guidelines are to:

- ensure a basic level of uniformity in the structure, encoding, and content of Alliance digital object metadata in keeping with the Mountain West Digital Library Dublin Core metadata application profile and other relevant standards;

- promote interoperability within Alliance institutions metadata records developed from diverse repositories; and

- facilitate access to digital content by end users.

Contents

Introduction

These best practices were created by the Orbis Cascade Alliance Archives Engine West Working Group, Digital Content Working Group, and Digital Collections Working Group. They are intended to guide Alliance members who create and manage digital object metadata. Other institutions are free to adopt the Orbis Cascade Alliance Dublin Core Best Practices Guidelines, in full or in part, for their local use.

These guidelines are not to be used for Encoded Archival Description (EAD) records; for those, please consult the Alliance's EAD Best Practice Guidelines at https://www.orbiscascade.org/bestpracticesforead1/.

In order for your digital objects and metadata to be harvested into an Alliance-wide aggregation of digital content, the below requirements will need to be met to ensure consistency and usability. However, please note: **These are recommendations for preparing your digital object metadata for harvest and are not meant to dictate how you practice metadata creation at your own institution**. That said, we do hope that these guidelines will be useful for your practices going forward, and that the recommendations here might serve as models for your digital object metadata creation.

These guidelines are based on the Mountain West Digital Library Dublin Core Application Profile, Version 2.0, released July 20, 2011.

The Dublin Core Best Practices Guidelines consists of six sections:

> I. Best Practices for All Fields
> II. Explanation of Table Components
> III. Element Tables (in alphabetical order)
> IV. Vocabulary Encoding Schemes
> V. Syntax Encoding Schemes
> VI. Crosswalk
> VII. Versions & Credits

What's new in the Dublin Core Best Practices Guidelines 2.3:

- Minor clarifying changes to the rights field.

I. Best Practices for All Fields

Use of semicolons

To retain integrity of data, separate multiple entries within a single field by inserting a semicolon and a space between two entries.

Example: `eng; spa`

Requirement status

Required	Recommended	Optional
Field must be included in record.	Inclusion of the field is	Inclusion of field is up to the

	recommended.	discretion of Alliance institutions.
date identifier rights title type	creator description format language relation spatial coverage subject	contributor source

Enrichment

Enrichment is primarily the addition of URIs representing people (a creator or contributor) or a resource type, and is performed by the Harvester at the discretion of each Alliance member institution. The sources of URIs are the Library of Congress Name Authority File (LCNAF), the Getty Art and Architecture Thesaurus, and the Dublin Core Type Vocabulary. URIs are the preferred method of authority control on the world wide web, and opting for enrichment facilitates www-based use of harvested data.

Adding local fields not covered by these guidelines

This profile does not prohibit Alliance institutions from adding other fields to their metadata records as needed to serve local needs. However, these fields will not be harvested by the Alliance Harvester. Some examples of fields needed locally may include:
- fields for data specific to a particular discipline or user community
- tags needed for customized searching
- natural language date fields to display unformatted dates
- other qualified Dublin Core elements such as audience or bibliographicCitation

II. Explanation of Table Components

Label	The name assigned to the field by these guidelines
DC Mapping	Lists the Dublin Core element to map to for harvesting purposes and a URI to the DC Metadata Element definition.
Definition	Definition, based on the DC Metadata Element set.
Is Field Required?	Indicates the extent to which this field is required in a record: ● **Required:** Field must be included in record ● **Recommended:** Inclusion of the field is recommended ● **Optional:** Inclusion of field is up to the discretion of the Alliance institution
Is Field Repeatable?	**"No"** indicates a field may occur just once in a single record. **"Yes"** indicates a field may appear multiple times in a single record.

How to Use	Guidelines for the content of the field.
OAI Editing Options	Identifies option(s) to insert a common value in every record in an OAI set.
Schemes	Identifies controlled vocabulary or format convention used to structure the data contained in the field; these are called schemes. For more information about a mentioned scheme: <u>Section IV: Vocabulary Encoding Schemes</u> of these guidelines provide tables for the referenced vocabulary encoding schemes while <u>Section V: Syntax Encoding Schemes</u> provides tables for format conventions for languages and dates. The last row of each table provides a link to a list of controlled vocabulary terms or explanation of a format convention such as how to structure dates or language codes. Indicates the extent to which use of this scheme is required in a record: **Required:** Data must use the identified vocabulary or convention **Preferred:** Using the identified vocabulary or convention is preferred, but not required
Input Examples	Identifies examples of data entered in the field.
Output Examples	Identifies examples of data output from the field.
Alliance Harvester Transformations	Lists data transformations performed by the Alliance Harvester.

III. Element Tables (in alphabetical order)

Label	Contributor
DC Mapping	dc:contributor http://purl.org/dc/elements/1.1/contributor
Definition	An entity responsible for making contributions to the resource.
Is Field Required?	Optional
Is Field Repeatable?	Yes
How to Use	For multiple contributors, either repeat the property or separate values with a semicolon. Form according to Resource Description and Access (RDA). When adding a contributor role, use terms listed in RDA Relationship Designators for Contributors or the MARC Code List for Relators. The role should be preceded by a comma and one space (see the examples).
OAI Editing Options	Contributor values can be edited during the Alliance Harvester's enrichment process, but an edit occurs only if the value can be matched to a Library of Congress Name Authority File (LCNAF) preferred label. If a value cannot be matched to a LCNAF preferred label, the value will not be edited and it will be harvested as the original text value.
Schemes	Preferred: ● Library of Congress Name Authority File (LCNAF)
Input Examples	Aggens, Steffen Heinrich, 1834-1888 Callaway family Francone, Clarice Ashworth, illustrator

Output Examples	`<dc:contributor>Aggens, Steffen Heinrich, 1834-1888</dc:contributor>`
	
	`<dc:contributor>Callaway family</dc:contributor>`
	
	`<dc:contributor>Francone, Clarice Ashworth, illustrator</dc:contributor>`

Alliance Harvester Transformations	● Splits semicolon delimited values into separate properties ● Removes trailing punctuation except for periods ● Trims whitespace ● Replaces HTML tag with a single whitespace ● Suppresses "unknown" values ● Inserts VIAF URI as a separate contributor property when contributor is a LCNAF preferred label

- For Primo, maps to 2 properties:
  - dc:contributor
  - dc:contributor.undated and strips dates from these values

Label	Creator
DC Mapping	dc:creator http://purl.org/dc/elements/1.1/creator
Definition	An entity primarily responsible for making the resource.
Is Field Required?	Recommended
Is Field Repeatable?	Yes
How to Use	For multiple creators, either repeat the property or separate values with a semicolon. When present, form according to Resource Description and Access (RDA).
OAI Editing Options	Creator values can be edited during the Alliance Harvester's enrichment process, but an edit occurs only if the value can be matched to a Library of Congress Name Authority File (LCNAF) preferred label. If a value cannot be matched to a LCNAF preferred label, the value will not be edited and it will be harvested as the original text value.
Schemes	Preferred: ● Library of Congress Name Authority File (LCNAF)
Input Examples	Aggens, Steffen Heinrich, 1834-1888 Callaway family Adelphian Literary Society (Oregon State University)

Output Examples	`<dc:creator>Aggens, Steffen Heinrich, 1834-1888</dc:creator>`
	
	`<dc:creator>Callaway family</dc:creator>`
	
	`<dc:creator>Adelphian Literary Society (Oregon State University)</dc:creator>`

Alliance Harvester Transformations	● Splits semicolon delimited values into separate properties ● Removes trailing punctuation except for periods ● Trims whitespace ● Replaces HTML tag with a single whitespace ● Suppresses "unknown" values ● Inserts VIAF URI as a separate creator property when creator is a LCNAF preferred label ● For Primo, maps to 2 properties:

	○ dc:creator
	○ dc:creator.undated and strips dates from these values

Label	Date
DC Mapping	dc:date http://purl.org/dc/elements/1.1/date
Definition	A point or period of time associated with an event in the lifecycle of the resource.
Is Field Required?	**Required**
Is Field Repeatable?	Yes, but only the first dc:date will be harvested
How to Use	A resource may have several dates associated with it. The date covered by this table refers to the creation of the original resource, that is, when the resource was first created, before undergoing any conversion. Additional dates are allowed, though only one date (the first instance of dc:date output) will be harvested. If the date is unknown, specify an estimated date or date range. For more complex dates than shown in examples below, see the EDTF proposed standard at the Library of Congress, or consult Alliance staff.
OAI Editing Options	None
Schemes	Required: ● ISO8601 ● Library of Congress Extended Date Time Format (EDTF) level 0 or 1 ● W3CDTF
Input Examples	Year: YYYY (e.g. 1997) BCE Year: -YYYY Year and month: YYYY-MM (e.g. 1997-07) Complete date: YYYY-MM-DD (e.g. 1997-07-16) YYYYMMDD (e.g. 19970716) Complete date plus hours and minutes: YYYY-MM-DDThh:mmTZD (e.g. 1997-07-16T19:20+01:00) Complete date plus hours, minutes and seconds:

	YYYY-MM-DDThh:mm:ssTZD (e.g.1997-07-16T19:20:30+01:00) Complete date plus hours, minutes, seconds and a decimal fraction of a second: YYYY-MM-DDThh:mm:ss.sTZD (e.g.1997-07-16T19:20:30.45+01:00) Date range: YYYY/YYYY (e.g. 1900/1920) Extended interval date range: YYYY/open (e.g. 1850/open) unknown/YYYY (e.g. unknown/1850) Century: YYuu (e.g. 19uu) Decade: YYYu (e.g. 194u) Circa/approximate: YYYY~ (e.g. 1886~) YYYY? (e.g. 1886?)

Output Examples	`<dc:date>1997</dc:date>`
	
	`<dc:date>-0700</date>`
	
	`<dc:date>1997-07</dc:date>`
	
	`<dc:date>1997-07-16</dc:date>`
	
	`<dc:date>19970716</dc:date>`
	
	`<dc:date>1997-07-16T19:20+01:00</dc:date>`
	
	`<dc:date>1997-07-16T19:20:30+01:00</dc:date>`
	
	`<dc:date>1997-07-16T19:20:30.45+01:00</dc:date>`
	
	`<dc:date>1900/1920</dc:date>`
	
	`<dc:date>1850/open</dc:date>`
	
	`<dc:date>unknown/1850</dc:date>`
	
	`<dc:date>19uu</dc:date>`
	
	`<dc:date>194u</dc:date>`
	
	`<dc:date>1886~</dc:date>`
	
	`<dc:date>1886?</dc:date>`

Alliance Harvester Transformations	● Trims whitespace ● Replaces HTML tag with a single whitespace

- Harvests the first instance of dc:date output and ignores subsequent dc:date values
- Replaces hyphens with forward slashes in date ranges
- Ignores timestamps
- For Digital Commons default dates (YYYY-MM-DDThh:mm:ssTZD): ignores month and day if both equal "01"
- For DPLA, maps to 4 properties:
  - dpla:SourceResource/dc:date
  - edm:TimeSpan/dc:date when the Harvester is able to parse two dates that are valid according to the XSD schema
  - Derives start date from dc:date and maps to edm:TimeSpan/edm:begin when the Harvester is able to parse two dates that are valid according to the XSD schema
  - Derives end date from dc:date and maps to edm:TimeSpan/edm:end when the Harvester is able to parse two dates that are valid according to the XSD schema
- For Primo, maps to 3 properties:
  - dc:date
  - Derives start date from dc:date and maps to dc:date.start; Format as YYYYMMDD; When decade and century are approximated with the presence of "u" or "?" (eg. 194u; 19??) transform to the first day in the decade or century (eg. 19400101; 19000101)
  - Derives end date from dc:date and maps to dc:date.end; Format as YYYYMMDD; When decade and century are approximated with the presence of "u" or "?" (eg. 194u; 19??) transform to the last day in the decade or century (eg. 19491231; 19991231)

Label	Description
DC Mapping	dc:description http://purl.org/dc/elements/1.1/description
Definition	An account of the resource.
Is Field Required?	Recommended
Is Field Repeatable?	Yes
How to Use	Anything significant about the digital resource not covered elsewhere. Use standard punctuation and grammar to describe the item's history, physical appearance, contents, abstract, etc.
OAI Editing Options	None
Schemes	None
Input Examples	Camp II Bus Station at Poston with a Japanese flair. Postcard of the Memorial Gymnasium on the University of Idaho campus in Moscow, Idaho.

	Alpine aster; Aster alpigenus var. alpigenus

Output Examples	`<dc:description>Camp II Bus Station at Poston with a Japanese flair.</dc:description>`
	
	`<dc:description>Postcard of the Memorial Gymnasium on the University of Idaho campus in Moscow, Idaho.</dc:description>`
	
	`<dc:description>Alpine aster; Aster alpigenus var. alpigenus</dc:description>`

Alliance Harvester Transformations	● Replaces HTML tag with whitespace ● When a thumbnail URL is the only value in dc:description, the URL is extracted and mapped to the thumbnail edm:WebResource ● When a URL is the only value in dc:description, the value is not harvested for dc:description

Label	Format
DC Mapping	dc:format http://purl.org/dc/elements/1.1/format
Definition	The digital file format of the resource.
Is Field Required?	Recommended
Is Field Repeatable?	Yes
How to Use	Use for the digital format of the resource, form as an Internet Media Type (IMT) term. For multiple formats, either repeat the property or separate values with a semicolon.
OAI Editing Options	To insert a common Internet Media Type in edm:WebResource dc:format in all records of an OAI set, select an Internet Media Type in Alliance Harvester's contribution interface. This option is only available for CONTENTdm, Omeka, and Oregon Digital users.
Schemes	Required: ● Internet Media Type (IMT) ● A commonly used subset of the entire IMT set of acceptable formats is available for download here: http://mwdl.org/docs/format_values.txt
Input Examples	audio/mp4; application/pdf image/tiff

Output Examples	`<dc:format>audio/mp4; application/pdf</dc:format>`
	
	`<dc:format>image/tiff</dc:format>`

Alliance Harvester Transformations	- Harvests IMT and ignores other dc:format values - If a format value is added during OAI contribution, replaces dc:format in the OAI-PMH with the format value selected in the contribution interface - If a format value is not added during OAI contribution, tries to detect MIME type of the reference file. If the MIME type is detected, it is harvested - Splits semicolon delimited values into separate properties - Removes trailing punctuation - Trims whitespace - Replaces HTML tag with a single whitespace - For DPLA, maps to: - edm:webResource/dc:format for the reference resource

Label	Identifier
DC Mapping	dc:identifier http://purl.org/dc/elements/1.1/identifier
Definition	An unambiguous reference to the resource within a given context.
Is Field Required?	Required
Is Field Repeatable?	Yes, but only the record URI will be harvested
How to Use	Use for the resource identifier. Many digital asset management systems, such as CONTENTdm and bepress Digital Commons, automatically create, populate, and map the main identifier field. This main identifier is a URL for the resource. Additional identifier fields may be created as needed for local use, such as call number, filename, etc. However, only the identifier containing the URI leading back to the resource will be harvested. If two URIs are present, and one is a DOI, the DOI will be harvested.
OAI Editing Options	None
Schemes	Required: Uniform Resource Identifier (URI) http://www.ietf.org/rfc/rfc2396.txt
Input Examples	http://digitalcollections.lclark.edu/items/show/6162 http://cdm16786.contentdm.oclc.org/cdm/ref/collection/ohc/id/2

Output Examples	`<dc:identifier>http://digitalcollections.lclark.edu/items/show/6162</dc:identifier>`
	
	`<dc:identifier>http://cdm16786.contentdm.oclc.org/cdm/ref/collection/ohc/id/2</dc:identifier></dc:identifier>`

Alliance Harvester Transformations	Parses identifier values for the URI matching the institution's base URL, harvests this URL as the record URI and ignores other dc:identifier values

	● If two URIs are present, and one is a DOI, the DOI will be harvested. ● Trims whitespace

Label	Language
DC Mapping	dc:language http://purl.org/dc/elements/1.1/language
Definition	A language of the resource.
Is Field Required?	Recommended
Is Field Repeatable?	Yes
How to Use	Use for ISO 639-2 three letter codes or language names as they appear in ISO 639-2. For multiple languages, either repeat the property or separate values with a semicolon. If there is no linguistic content, leave blank.
OAI Editing Options	To insert a common language value in all records of an OAI set, select a single language value in Alliance Harvester's contribution interface.
Schemes	Required: ● ISO639-2
Input Examples	gre ell eng; spa English; Spanish

Output Examples	`<dc:language>gre</dc:language>`
	
	`<dc:language>ell</dc:language>`
	
	`<dc:language>eng; spa</dc:language>`
	
	`<dc:language>English; Spanish</dc:language>`

Alliance Harvester Transformations	● If language value is added during contribution, replaces dc:language in the OAI-PMH with language value from the contribution interface ● Splits semicolon delimited values into separate properties ● Removes trailing punctuation ● Trims whitespace ● Replaces HTML tag with a single whitespace ● Transforms dc:language names to three letter codes

	● De-duplicates dc:language values within a single record

Label	Relation
DC Mapping	dc:relation http://purl.org/dc/elements/1.1/relation
Definition	A related resource.
Is Field Required?	Recommended
Is Field Repeatable?	Yes, but only the Archives West Archival Resource Key (ARK) will be harvested.
How to Use	Use for the relation value as an Archives West ARK. Additional relation fields/values may be created as needed for local use, to show relationships between the resource and other resources. However, only the relation value containing the Archives West ARK will be harvested.
OAI Editing Options	None
Schemes	Required: ● Archival Resource Key (ARK) https://n2t.net/ark:/13030/c7cv4br18
Input Examples	http://archiveswest.orbiscascade.org/ark:/80444/xv57799
Output Examples	`<dc:relation>http://archiveswest.orbiscascade.org/ark:/80444/xv57799</dc:relation>`
Alliance Harvester Transformations	● Harvests the Archives West ARK and ignores other dc:relation values ● Trims whitespace

Label	Rights
DC Mapping	dc:rights http://purl.org/dc/elements/1.1/rights
Definition	Information about the copyright of the resource.
Is Field Required?	**Required**
Is Field Repeatable?	Yes, rights is required as exactly 2 separate properties.
How to Use	Use a pair of rights statements to describe the copyright status of the resource. Do not use this field to describe property or privacy rights. A rights statement pair consists of exactly two rights properties: 1. One standardized rights statement, present as a creativecommons.org URI or

	RightsStatements.org URI 2. One free-text rights statement that complements the selected standardized rights statement When choosing a standardized rights statement: ● Use a rightsstatements.org statement to express the rights status if your institution does not hold the rights, or if your institution holds the rights but does not wish to use a Creative Commons license. ● Use a Creative Commons license if your institution hold the rights and you're authorized to make that determination. If the creator already assigned one, use they one they assigned. ● For materials in the public domain, use a rightsstatement.org statement or the Creative Commons Public Domain Mark. See the Alliance's Rights Statements Decision Matrix for details on selecting between these options. When choosing a free-text rights statement: ● The free-text rights statement should not just repeat the standardized rights statement. ● The free-text rights statement should complement, not contradict, the standardized rights statement. ● A free-text rights statement may include a link to a locally hosted rights statements, but the URL should be preceded by free-text (see examples). Standardized and free-text rights statements should be present in separate properties. See the Alliance's Rights Documentation and Rights Statements Decision Matrix for more applicable information.
OAI Editing Options	To insert a common standardized rights statement in all records of an OAI set, select a standardized rights statement in the Alliance Harvester's contribution interface. To insert a common free-text rights statement in all records of an OAI set, type a free-text rights statement in the Alliance harvester's contribution interface.
Schemes	Required: ● Uniform Resource Identifier (URI) http://www.ietf.org/rfc/rfc2396.txt ● RightsStatements.org ● creativecommons.org
Input Examples	**Example Pair 1** Standardized: http://rightsstatements.org/vocab/InC/1.0/ Free-text: Copyright held by the estate of Estelle Baruch. This image may not be reproduced for any reason until the year 2021. Please contact (*name of institution/department, email, phone)* for more information.
	Example Pair 2 Standardized:

	http://rightsstatements.org/vocab/CNE/1.0/ Free-text: The investigation of the copyright status of this object has not or cannot be concluded as of [date]. Please contact [Institution/Library] for more information.
	Example Pair 3 Standardized: http://creativecommons.org/publicdomain/zero/1.0/ Free-text: The copyright holder has placed this object in the Public Domain. Refer to the Creative Commons page <https://creativecommons.org/publicdomain/zero/1.0/> for more information, or contact [the Institution/Library].

Output Examples	`<dc:rights>http://rightsstatements.org/vocab/InC/1.0/</dc:rights>`
	
	`<dc:rights>Copyright held by the estate of Estelle Baruch. This image may not be reproduced for any reason until the year 2021. Please contact (`*name of institution/department, email, phone)*` for more information.</dc:rights>`

	`<dc:rights>http://rightsstatements.org/vocab/CNE/1.0/</dc:rights>`
	
	`<dc:rights>The investigation of the copyright status of this object has not or cannot be concluded as of [date]. Please contact [Institution/Library] for more information.</dc:rights>`

	`<dc:rights>`http://creativecommons.org/publicdomain/zero/1.0/`</dc:rights>`
	
	`<dc:rights>The copyright holder has placed this object in the Public Domain. Refer to the Creative Commons page <https://creativecommons.org/publicdomain/zero/1.0/> for more information, or contact [the Institution/Library].</dc:rights>`

Alliance Harvester Transformations	- If a standardized rights statement is added during OAI contribution, replaces all standardized rights statements in the OAI-PMH with the statement selected in the contribution interface - If a free-text rights statement is added during OAI contribution, replaces all free-text statements in the OAI-PMH with the statement entered in the contribution interface - Trims whitespace - Replaces HTML tag with a single whitespace - For DPLA, maps to 3 properties: - dpla:SourceResource/dc:rights - ore:Aggregation/edm:rights - edm:WebResource/edm:rights - For Primo, maps to 2 properties:

	○ standardized rights statements to dc:rights.standardized
	○ free-text rights statements to dc:rights

Label	Source
DC Mapping	dc:source http://purl.org/dc/elements/1.1/source
Definition	A related resource from which the described resource is derived.
Is Field Required?	Optional
Is Field Repeatable?	Yes
How to Use	Use when the resource is the result of digitization of non-digital originals. In these cases, sufficient information to identify and find the original resource is provided.
OAI Editing Options	None
Schemes	None
Input Examples	RC607.A26W574 1996
Output Examples	`<dc:source>RC607.A26W574 1996</dc:source>`
Alliance Harvester Transformations	● Trims whitespace ● Replaces HTML tag with a single whitespace

Label	Spatial coverage
DC Mapping	dc:coverage http://purl.org/dc/elements/1.1/coverage
Definition	The spatial topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant.
Is Field Required?	Recommended
Is Field Repeatable?	Yes
How to Use	Use for spatial coverage only. For multiple coverage statements, either repeat the property or separate values with a semicolon.

	Use for human readable place name or geographic coordinates (expressed as decimal degrees instead of degrees-minutes-seconds format). If outputting geographic coordinates in separate properties, output latitude first.
OAI Editing Options	None
Schemes	Use of a scheme is recommended. Some options are: ● GeoNames ● Library of Congress Subject Headings (LCSH) ● Thesaurus of Geographic Names (TGN)
Input Examples	Boise (Idaho) United States--Idaho--Boise 43.618881, -116.215019 Boise, Ada County, Idaho, United States

Output Examples	`<dc:coverage>Boise (Idaho)</dc:coverage>`
	
	`<dc:coverage>United States--Idaho--Boise</dc:coverage>`
	
	`<dc:coverage>43.618881, -116.215019</dc:coverage>`
	
	`<dc:coverage>Boise, Ada County, Idaho, United States</dc:coverage>`

Alliance Harvester Transformations	● Splits semicolon delimited values into separate properties
	● Removes trailing punctuation
	● Trims whitespace
	● Replaces HTML tag with a single whitespace
	● Joins latitude and longitude values, separating with a comma, when coordinates are present in separate dc:coverage properties
	● For Primo, maps to 2 properties:
	  ○ Maps human readable placenames to dc:spatial
	  ○ Maps geographic coordinates to dc:coverage.spatial.latlng

Label	Subject
DC Mapping	dc:subject http://purl.org/dc/elements/1.1/subject
Definition	The topic of the resource.
Is Field Required?	Recommended
Is Field Repeatable?	Yes

How to Use	Use for all subjects.
	For multiple subjects, either repeat the property or separate values with a semicolon.
OAI Editing Options	None
Schemes	Use of a scheme is recommended. An option is: ● Library of Congress Subject Headings (LCSH)
Input Examples	Dentistry Racetracks (Horse racing)--United States Heart Failure/physiopathology Gastronomy Pencils Film trailers Nature films Dogs; Cats; Zebras

Output Examples	`<dc:subject>Dentistry</dc:subject>`
	
	 `<dc:subject>Racetracks (Horse racing)--United States</dc:subject>`
	
	 `<dc:subject>Heart Failure/physiopathology</dc:subject>`
	
	 `<dc:subject>Gastronomy</dc:subject>`
	
	 `<dc:subject>Pencils</dc:subject>`
	
	 `<dc:subject>Film trailers</dc:subject>`
	
	 `<dc:subject>nature films</dc:subject>`
	
	 `<dc:subject>Dogs; Cats; Zebras</dc:subject>`

Alliance Harvester Transformations	● Splits semicolon delimited values into separate properties ● Removes trailing punctuation except for periods ● Trims whitespace ● Replaces HTML tag with a single whitespace

Label	Title
DC Mapping	dc:title http://purl.org/dc/elements/1.1/title

Definition	A name given to the resource.
Is Field Required?	**Required**
Is Field Repeatable?	Yes
How to Use	Each title property should have a single title value. For multiple titles, repeat the property. Only one title (the first instance of dc:title output) will be harvested as a title. All subsequent title properties will be harvested as alternative titles.
OAI Editing Options	None
Schemes	None
Input Examples	Haystack Rock Bakery at McNeil Island Penitentiary White Pass & Yukon Railroad train stopped at the summit of White Pass, ca. 1914

Output Examples	`<dc:title>Haystack Rock</dc:title>`
	
	`<dc:title>Bakery at McNeil Island Penitentiary</dc:title>`
	
	`<dc:title>White Pass & Yukon Railroad train stopped at the summit of White Pass, ca.1914</dc:title>`

Alliance Harvester Transformations	- Trims whitespace - Replaces HTML tag with a single whitespace - For DPLA: - Maps the first instance of dc:title output to dpla:SourceResource/dcterms:title - Maps subsequent instances of dc:title output to dpla:SourceResource/dcterms:alternative - For Primo: - Maps the first instance of dc:title output to dc:title - Maps subsequent instances of dc:title output to dc:alternative

Label	Type
DC Mapping	dc:type http://purl.org/dc/elements/1.1/type
Definition	The nature or genre of the resource.
Is Field Required?	**Required**

Is Field Repeatable?	Yes
How to Use	Use to describe the type of the resource with at least one value from DCMI Type vocabulary. For multiple values, either repeat the property or separate values with a semicolon. Optional: ● Use to refine the selected DCMI Type value with one or more genre value(s). Use of AAT genre terms is preferred. Adding genre values is optional and is in addition to the required type value(s).
OAI Editing Options	To insert a common type and/or genre value in all records of an OAI set, select value(s) in Alliance Harvester's contribution interface.
Schemes	Required (for required type): ● DCMI Type Vocabulary Preferred (for optional genre): ● Art & Architecture Thesaurus (AAT) ● A commonly used subset of the entire AAT genre terms is available for download here: http://mwdl.org/docs/AAT_subset.txt
Input Examples	Image; Black-and-white photographs Image; MovingImage Sound; Text Text; Articles

Output Examples	`<dc:type>Image; Black-and-white photographs</dc:type>`
	
	`<dc:type>Image; MovingImage</dc:type>`
	
	`<dc:type>Sound; Text</dc:type>`
	
	`<dc:type>Text; Articles</dc:type>`

Alliance Harvester Transformations	● If a DCMI Type term is added during OAI contribution, replaces all DCMI Type terms in the OAI-PMH with the DCMI Type term selected in the contribution interface
	● If an AAT genre term is added during OAI contribution, replaces all dc:type values (except for DCMI Type terms) with the genre term entered in the contribution interface
	● Splits semicolon delimited values into separate properties
	● Removes trailing punctuation
	● Trims whitespace
	● Replaces HTML tag with a single whitespace
	● For DPLA:
	   ○ Inserts an additional triple with the DCMI Type URI as value
	   ○ Inserts an additional triple with the AAT URI as value
	   ○ Maps DCMI Type values to dpla:sourceResource/dcterms:type

	○ Maps non-DCMI Type values to dpla:sourceResource/edm:hasType - For Primo: ○ Maps DCMI Type values to dc:type ○ Maps non-DCMI Type values to dc:genre

IV. Vocabulary Encoding Schemes

Term	AAT
Full Name	Art and Architecture Thesaurus
Definition	A structured vocabulary containing terms, descriptions, and other information for generic concepts related to art, architecture, and material culture. It is organized hierarchically within seven facets: associated concepts, physical properties, styles and periods, agents, activities, materials, and objects.
List of Terms	http://www.getty.edu/research/tools/vocabularies/aat Terms are also viewable as linked data properties. The top of the hierarchy is at http://vocab.getty.edu/aat/300264092. And there is a sparql endpoint at http://vocab.getty.edu/sparql A commonly used subset of the entire AAT genre terms is available for download here: http://mwdl.org/docs/AAT_subset.txt

Term	CC
Full Name	Creative Commons Licenses
Definition	A core suite of 6 public copyright licenses that enable the free distribution of an otherwise copyrighted work. A CC license is used when a creator wants to give people the right to share, use, and build upon a work that s/he has created. CC licenses can only be assigned by the person or organization that holds the rights.
List of Terms	https://creativecommons.org/licenses/

Term	DCMI Type
Full Name	DCMI Type Vocabulary
Definition	The set of classes specified by the DCMI Type Vocabulary, used to categorize the nature or genre of the resource.
List of Terms	http://purl.org/dc/terms/DCMIType

Term	GeoNames
Full Name	GeoNames
Definition	A geo-spatial database including geographic data such as place names in various languages, latitude, longitude, and altitude.
List of Terms	http://www.geonames.org/

Term	IMT
Full Name	Internet Media Types
Definition	Media types specified by the Internet Assigned Numbers Authority.
List of Terms	https://www.iana.org/assignments/media-types/media-types.xhtml A commonly used subset of the entire IMT set of acceptable formats is available for download here: http://mwdl.org/docs/format_values.txt

Term	LCNAF
Full Name	Library of Congress Name Authorities File
Definition	The set of authorized personal and corporate names specified by the Library of Congress.
List of Terms	http://authorities.loc.gov http://id.loc.gov/authorities/names.html

Term	LCSH
Full Name	Library of Congress Subject Headings
Definition	The set of labeled concepts specified by the Library of Congress Subject Headings.
List of Terms	http://id.loc.gov/authorities/subjects.html

Term	MARC Code List for Relators
Full Name	MARC Code List for Relators
Definition	Relator terms and their associated codes designate the relationship between an contributor and a bibliographic resource.
List of Terms	http://id.loc.gov/vocabulary/relators.html

Term	RDA: Appendix I
Full Name	Resource Description and Access: Appendix I: Relationship Designators: Relationships Between a Resource and Persons, Families, and Corporate Bodies Associated with the Resource
Definition	Guidelines on using relationship designators to specify the relationship between a resource and a person, family, or corporate body associated with that resource, and lists relationship designators used for that purpose.
List of Terms	http://www.rda-jsc.org/archivedsite/workspace/rdaappi_2015february.pdf

Term	RightsStatements.org
Full Name	RightsStatements.org
Definition	12 standardized rights statements, developed by Europeana and DPLA, that can be used by cultural heritage institutions to communicate the copyright and re-use status of digital objects to the public. You do not need to be the rights holder to determine and assign rights statements.
List of Terms	http://rightsstatements.org/

Term	TGN
Full Name	Thesaurus of Geographic Names
Definition	A structured vocabulary, including names, descriptions, and other metadata for extant and historical cities, empires, archaeological sites, and physical features important to research of art and architecture.
List of Terms	https://www.getty.edu/research/tools/vocabularies/tgn/index.html

V. Syntax Encoding Schemes

Term	EDTF
Full Name	Library of Congress Extended Date Time Format
Definition	Defines a profile of and extension to ISO 8601, the International Standard for the representation of dates and times. Level 0: profile of ISO 8601 Level 1: simple extensions
List of Terms	Level 0: http://www.loc.gov/standards/datetime/pre-submission.html#level0 Level 1: http://www.loc.gov/standards/datetime/pre-submission.html#level1

Term	ISO639-2
Full Name	ISO 639-2
Definition	639-2, Codes for the representation of names of languages--Part 2: Alpha-3 code, ISO 639-2 is a code that aims to define three letter identifiers for human languages.
List of Terms	http://lcweb.loc.gov/standards/iso639-2/langhome.html

Term	ISO8601
Full Name	ISO 8601:2004
Definition	An international standard covering the exchange of date and time-related data, issued by the International Organization for Standardization (ISO).
List of Terms	http://www.iso.org/iso/home/standards/iso8601.htm Summary: http://www.cl.cam.ac.uk/~mgk25/iso-time.html

Term	W3CDTF
Full Name	W3C-DTF
Definition	Defines a profile of ISO 8601, the International Standard for the representation of dates and times. http://purl.org/dc/terms/W3CDTF
List of Terms	https://www.w3.org/TR/NOTE-datetime

VI. Crosswalks

Alliance to DPLA MAP, v.4

A detailed crosswalk between DPLA Metadata Application Profile, v.4 and data harvested from Orbis Cascade Alliance digital repositories:
https://docs.google.com/spreadsheets/d/1eVKvh8xdoq_eQAsNyfLexrkijqh5CpQXPGgSVpeDlEw/edit?usp=sharing
(first sheet)

Alliance to ExLibris Primo PNX

A detailed crosswalk between the ExLibris Primo PNX record and data harvested from Orbis Cascade Alliance digital repositories:
https://docs.google.com/spreadsheets/d/1eVKvh8xdoq_eQAsNyfLexrkijqh5CpQXPGgSVpeDlEw/edit?usp=sharing
(second sheet)

VII. Versions & Credits

VERSION	DATE	CREATED/CHANGED BY	CHANGES MADE
1.0	April 27, 2016	Created by Orbis Cascade Alliance Archive Engine West Working Group (2014) and Digital Content Working Group (2015/2016)	First release
2.0	November 2016	Orbis Cascade Alliance Digital Collections Working Group (2016)	Addition of contributor, format, relation, and source elements; changes to creator, rights, spatial coverage, language, and subject
2.1	December 21, 2016	Orbis Cascade Alliance Digital Collections Working Group (2016)	Changes to creator, contributor, date, format, spatial coverage, subject, type; minor edits and reformatting
2.2	April 28, 2017	Orbis Cascade Alliance Digital Collections Working Group (2016)	Changes to contributor, creator, date, description, format, identifier, language, rights, subject, title, type, and vocabulary encoding schemas

Archive Engine West Working Group (2014)

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Tom Johnson	Oregon State University/Digital Public Library of America
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Digital Content Working Group (2015/2016)

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Devin Becker (2015/2016)	University of Idaho
Stephanie Beene (2015)	Lewis & Clark College
Rick Block (2015/2016)	Seattle University
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Digital Collections Working Group (2016/2017)

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