DARIAH Collection Description Data Model (DCDDM)

Überarbeitete Version (v1.1)

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Abstract

This paper specifies a data model for collection descriptions - the DARIAH Collection Description Data Model (DCDDM). The main goal of this initiative is to assist institutions and individual scholars in creating descriptions of physical (or analogue) AND digital collections that can be read by humans as well as by machines. As far as basic concepts and parts of the text are concerned, this paper relies heavily on the Dublin Core Collections Application Profile (DCCAP).

TABLE OF CONTENTS

INTRODUCTION AND DESIGN PRINCIPLES

The DARIAH Collection Description Data Model (DCDDM) specifies a fixed number of classes, elements, attributes, and values used for describing collections. Following the definition of the Dublin Core a collection is “an aggregation of resources”, which can be digital objects like digitized paintings, books, manuscripts, as well as “born-digital” objects like records of metadata, database-entries, or transcripts) or physical ones (paintings, books, statues, stamps, coins, etc.).

It is, however, not always so simple to identify what precisely the collection's resources are. Let´s take for instance a collection of early printed books where books' metadata are collected and made public by an “Online Public Access Catalogue” (OPAC). By describing this OPAC am I describing a collection of (physical) books or the collection of respective metadata (author, year of publication, number of pages, signature, …)? On the one hand we have the common user of an OPAC interested mainly, if not exclusively, in the physical object. He would search for the dates when the books were published (created) rather than look up the date of creation of the metadata records. On the other hand other users might want to harvest the books' metadata and would require therefore access to information about the metadata (for example the date when the metadata records have been created). So the interest of the users who are targeted by the OPAC influences the information the collection's description contains.

But how can we tailor the user's access without knowing who is going to use our collection description and for which purposes? One of the main goals of the DCDDM is to address this issue by providing ways to pack as much information into one collection description as possible and reasonable.

One of the challenges one encounters almost immediately is the most often unclear or not uniform understanding of the term 'collection' and collection’s items. Furthermore there is no strict differentiation between the collection's items (e.g. books), the item's metadata (e.g. the information about the author and title) and the actual manifestations of these information in form of, for instance, bitstreams saved in database.

Another considerable aspect of providing such broad range information is that the process of gathering all the relevant information can be very time consuming. Following the DCDDM requirements one can create a valid description by adding only a handful of basic information. This means, for example, that a given collection can have descriptions which vary strongly in their level of detail. A major factor in this respect is the descriptor's vision about the description and his or her willingness to invest time and effort to transform a valid but very basic collection description into a top notch collection description.

On the other hand, the level of detail or number of providable information depends also on the collection itself, the collection´s items and the infrastructure which maintains the collection. Institutions, which have at its disposal sufficient personnel and funds, have better resources to describe in detail their collections, than would an independent scholar with his or her collection of notes made while writing a small article.

To ease the workload of describing collections the DCDDM is meant to be used as a data model for applications dealing with the creation, publication and administration of collection descriptions (e.g. the DARIAH-DE Collection Registry). Likewise the DCDDM should provide sufficient guidelines to create collection descriptions independent of any tool or applications and their unforeseeable lifetime.

Given the broad definition of collection and the consequently many possible varieties of collections, the DCDDM has to achieve the following objectives:

1. The data model should allow descriptions of digital AND physical collections.
2. The description should offer general descriptive information concerning the content of the collection or the collection's items, such as:
    - topics/subjects which are covered by the collection;
    - locations and regions the content of the collection could be associated with;
    - dates and periods the collection may be related to.
3. The data model should allow for an unambiguous identification of the described collection.
4. The data model should allow to contextualize a collection and mark relationships:
    - between collections (one collection being part of another collection);
    - between collections and agents who interact with the collection (such as owners or curators);
5. Collection descriptions based on the DCDDM should encourage the exploration and usage of the described collections. Therefore the description should provide administrative information about:
    - how to access the collection or its items;
    - possible legal restrictions concerning the possibilities to access the collection and to (re)use its items.
6. If collections are made accessible online, technical metadata should be provided so that other services may gain access to the collection’s objects or the object’s metadata.
7. To avoid ambiguity the data model encourages the use of controlled vocabulary and normative data, unique identifiers, and syntax encoding schemes. To ensure human readability of the collection description the data model provides label-elements.
    - To facilitate mappings and transformations of already existing collection descriptions to collection descriptions based on the DCDDM, DCDDM supports several controlled vocabularies and encoding schemes (in fully awareness of the downsides of such a policy).
8. The data model should enable multilingual descriptions in a flexible but still practical way. This means that the describing person can choose the language for a given information. To achieve this requirement, the elements providing information in form of natural language and free text may be reused in as many languages as wished.
9. The data model has to be flexible enough to describe well curated collections held in museums, libraries, archives, etc. as well as material collected by individual researcher stored on personal hard drives. To archive this requirement the number of mandatory elements is kept as low as possible.
10. To achieve a high and widespread acceptance the data model should allow at least one easy to produce, read and understand serialization (like a csv-table) or a hierarchically as flat as possible (such as an XML-file, validated by a matching XML-Schema).
11. To ease interoperability and to reveal semantic closeness to well-known and extensively used metadata records (e.g. Dublin Core) the names and definitions of many classes, elements and attributes should be taken from well-established ones. Nonetheless to avoid any (technical) dependencies these names, definitions and specification will not be just referenced by simply providing quotes or links to the referenced elements, but will also be written down in this document.
12. The DCDDM wishes to be an easy to use, but nevertheless functional and therefore widely accepted data model for collection descriptions. To archive this goal it has to be extensively tested an evaluated 'in the wild'. At the moment of writing this specification, the DCDDM is mainly the result of a more theoretical discussion. This means that the model described in the paper has to be understood as an invitation to the interested community to use it, test it but most and for all criticize it.

CLASSES

The Dublin Core Collections Application Profile (DCCAP) describes the relationships between all in all six different entities or classes, namely “Item”, “Collection”, “Catalogue”, “Agent”, “Location”, and “Service”. Following the DCMI Abstract Model a “class” is understood as “a group containing members that have attributes, behaviours, relationships or semantics in common; a kind of category.” These six classes refer to the real world concepts item, collection, catalogue or index, agent, location, and service, and are defined through certain numbers of mandatory and optional elements.

The DCDDM instead defines the classes which refer to the real world concepts collection and agent. Following the DCDDM´s naming conventions, the name of those classes are written in capital letters and provided with the DCCDM´s prefix “dccdm”.

This alteration of the DCCAP is firstly linked to a class´s capacity of re-usability. Let us take a “Service” class as an example. DCCAP defines a Service as a “System that provides access to the Items within the Collection.” One could describe this Service in a very basic manner by providing for instance only a title property like “OAI-PMH” or “Reading Room”. In the (plausible) scenario where a museum or a library wants to describe their collections they could define one Service-Class “Reading Room” and one Service-Class “OAI-PMH” and reference this classes to the matching collections. But as soon as someone wants to provide more specific information on how to access the items within a chosen collection, those basic Service-Classes won´t be sufficient enough anymore as each collection requires specific information to enable access to its items. In case of an “OAI-PMH”-Service this specific parameter would be a ListSet and in case of a “Reading-Room”-Service specific parameters could be opening hours or the reading room´s address.

Another reason for not implementing all of the DCCAP´s classes to the DCCDM is redundancy. Early versions of the DCCDM still contained a Location-Class, providing information about the “a place where a Collection is held”. As experience taught us, the information provided through the Location-Class was in almost every collection description identical to the spatial information which was already provided through the Agent Class. Therefore it seems to be reasonable to deduct the collection´s location from the spatial information findable in the Agent-Class or to make them explicit in an optional location-property (dcddm:isLocatedAt) of the Collection Class.

Redundancy was also one reason to abandon the DCCAP´s Catalogue- or Index-Class which would have been very similar to the Service-Class while facing the same problem of little re-usability. The main reason for not adopting the Catalogue- or Index-Class though are the aforementioned conceptual difficulties arising from the differentiation between a collection and the collection´s catalogue or index.

As for the DCCAP as for the DCCDM a collection is defined as “an aggregation of resources” or items, the focus of a collection description lies on the aggregation of items and not on the items themselves. Therefore a collection description describes the aggregated items in their collectivity. From the point of view of a collection description the single item of a collection is not relevant and therefore there is no need in defining or (re-)using an Item-Class.

To sum it all up, from the six classes mentioned in the DCCAP only the Agent- and the Collection-Class can be find again in the DARIAH-DE Collection Description Data Model. This reduction of classes reduces of course the possible relationships between the classes. In the DCDDM on ore many dcddm:COLLECTION(s) can be “owned” or “collected” by on or many dcddm:AGENT(s) as well a one or many dcddm:AGENT(s) can own or collect one or many dcddm:COLLETIONS.

DCDDM:COLLECTION

Note: Phrases in *Italics* are direct quotations!

M = Mandatory, O = Optional, 1 = maximal usage 1, + = multiple usage

Definition	A collection is an aggregation of items. The term collection means that the resource is described as a group.
See	http://dublincore.org/groups/collections/collection-application-profile/#colproperties
Comment	In the DARIAH Collection Description Data Model a dcddm:COLLECTION is understood as an entity or class, defined by different XX elements, which themselves can contain their own attributes and child elements. Entities or classes differ from other complex elements therefore only in one point. Entities or classes contain at least one unique and unambiguous identifier which allows and supports the re-usability of those entities.
Values	**Mandatory elements** dcddm:title (M+) dcddm:collectionDescriptionCreated (M1) dcddm:description (M+) dcddm:hasContact (M+) dcddm:collectionType (M1) dcddm:collectionDescriptionRights (M1) dcddm:accessRights (M1) **Content and Item related elements** dcddm:subject (O+) dcddm:spatial (O+) dcddm:temporal (O+) dcddm:collectionCreated (O+) dcddm:dateItemsCreated (O+) dcddm:itemType (O+) dcddm:size (O1) dcddm:language (O+) dcddm:metadataEncodingScheme (O+) dcddm:itemEncodingScheme (O+) **Contextual elements** dcddm:creator (O+) dcddm:owner (O+) dcddm:audience(O+) dcddm:isLocatedAt (O+) dcddm:hasPartOf (O+) dcddm:isPartOf (O+)

	dcddm:associatedCollection (O+) dcddm:associatedProject (O+) dcddm:provenance (O+) dcddm:acronym (O1) dcddm:identifier (O1) dcddm:providedIdentifier (O+) **Collection policy elements** dcddm:accrualMethod (O+) dcddm:accrualPeriodicity (O1) dcddm:itemsRights (O+) **Service elements** dcddm:hasWebPage (O1) dcddm:hasOAI-PMH (O1) dcddm:hasREST-API (O1) dcddm:hasSPARQLEndpoint (O1) dcddm:hasOPAC (O1) dcddm:hasBEACON (O+) dcddm:hasReadingRoom (O+) dcddm:hasReproductionPossibilities (O+)

DCDDM:AGENT

Definition	A resource that acts or has the power to act. Examples of Agent include person, organization, and software agent.
See	http://dublincore.org/documents/2012/06/14/dcmi-terms/?v=terms#Agent
Comment	In the DARIAH Collection Description Data Model a dcddm:AGENT is understood as an entity or class, defined by different XX elements, which themselves can contain their own attributes and child elements. Entities or classes differ from other complex elements therefore only in one point. Entities or classes contain at least one unique and unambiguous identifier which allows and supports the re-usability of those entities.
Value	**Mandatory elements** dcddm:agentType (M1) dcddm:name (M1) **Optional elements** dcddm:forename (O+) dcddm:identifier (O+) dcddm:providedIdentifier (O+) dcddm:address (O1) dcddm:email (O+) dcddm:hasWebPage (O+) dcddm:phoneNumber (O+)

ELEMENTS

DCDDM:TITLE

Definition	A name given to the resource.
See	http://purl.org/dc/elements/1.1/title
Comment	A value string must be provided. The use of the language attribute **xml:lang** is recommended. To record titles in multiple languages, use multiple statements and in each statement associate the value string with the appropriate language tag. Where an existing name is used, the value string should preserve the original wording, order and spelling of an existing name. Punctuation need not reflect the usage of the original. Subtitles should be separated from the title by a sequence of space-colon-space, for example: *Voices from the Dust Bowl: The Charles L. Todd and Robert Sonkin Migrant Worker Collection* The usage of several different languages in one title element should be avoided if possible. The usage of two title elements containing the same language is not recommended.
Value	String **dcddm:simpleLiteral**
Obligation	M1+
Attribute	Attribute: **xml:lang** Value: two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. Usage: optional but recommended
Example (as XML)[1]	**<dcddm:title xml:lang="deu">**Internationales Dunhuang Projekt: Die Seidenstraße online**</dcddm:title>**

DCDDM:HASCONTACT

Definition	Provides at least one possibility for potential users of the collection to get in contact with a person/organisation responsible for the collection.
Comment	Possible contact information might be an email address (recommended), a phone number, a web page (which must provide contact information) or an address. For multiple contact information use multiple **dcddm:hasContact** statements. Each statement contains only one child element.
Value	Choose: **dcddm:email**

[1] Be aware to escape any characters which might interfere with the XML syntax (e.g. use & instead of & or < and > instead of < and >.)

	dcddm:hasWebPage **dcddm:phoneNumber** **dcddm:address** **dcddm:AGENT**

DCDDM:IDENTIFIER

Condition	Only if used in applications which create their own identifiers. Otherwise this element should not be used.
See	http://purl.org/dc/elements/1.1/identifier
Comment	An identifier should be a URI, using a URI scheme that has been registered with IANA. If the DCDDM is used in applications which help creating collection descriptions (i.e. DARIAH-DE Collection Registry), the application has to provide a valid identifier. The attribute **normdataRecord** holds information about any normdata record the provided identifier is taken from.
Value	String Syntax Encoding Scheme(s): URI or **dcddm:identifierValues**
Obligation	O1
Attribute	Attribute: **normdataRecord** Value: GND or VIAF, or OTHER or none Usage: mandatory Default: none
As XML	**<dcddm:identifier normdataRecord=”none”>**http://idp.bbaw.de**</dcddm:identifier>**

DCDDM:PROVIDEDIDENTIFIER

Definition	An unambiguous reference to the resource within an already existing context like an institution or an application.
Comment	In case your resource is already supplied with one or more identifiers which you would like keep on using to maintain interoperability. The attribute **normdataRecord** holds information about any normdata record the provided identifier is taken from.
Value	String
Attribute	Attribute: normdataRecord Value: GND or VIAF, or OTHER or none Usage: mandatory Default: none
Obligation	O+
Example (as XML)	**<dcddm:providedIdentifier normdataRecord=”GND”>**2088127-

	7**</dcddm:providedIdentifier>**

DCDDM:WEBPAGE

Definition	Provides a web page related to the resource.
Comment	Only provide web pages when you can be sure that they will stay online for as long as the collection description is meant to be public or you have the resources to keep them alive.
Value	String Syntax Encoding Scheme: URI
Obligation	O1
Example (as XML)	**<dcddm:webPage>**http://www.hab.de/de/home/ueber-uns/kontakte-und-organisation/timo-steyer.htm**<dcddm:webPage>** **<dcddm:webPage>** http://idp.bbaw.de**</dcddm:webPage>**

DCDDM:COLLECTIONTYPE

Definition	The nature or genre of the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctype1
Comment	Use of standard vocabulary required. Provided values are based on DARIAH-DE suggestions.
Value	String Controlled vocabulary: **dcddm:collectionTypeValues**
Obligation	M1
Default	Collection
Example (as XML)	**<dcddm:collectionType>**Collection**</dcddm:collectionType>**

DCDDM:DESCRIPTION

Definition	A free text summary description of the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsabstract
Comment	A value string must be provided. To record descriptions in multiple languages, use multiple statements and in each statement associate the value string with the appropriate language attribute **xml:lang** Although a description might contain detailed subject-specific information, at least part of the description should be understandable by an end-user with no specialist knowledge

	of the subject area.
Value	String **dcddm:simpleLiteral**
Attribute	Attribute**: xml:lang** Value: two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. Usage: optional but recommended
Obligation	M+
Example (as XML)	**<dcddm:description xml:lang="deu">**Das Internationale Dunhuang Projekt ist ein bahnbrechendes internationales Kooperationsprojekt mit dem Ziel, Informationen und Bilder aller Manuskripte, Gemälde, Textilien und Artefakte aus Dunhuang und anderen Fundstätten an der Seidenstraße frei im Internet verfügbar zu machen und ihre Nutzung durch Bildungs- und Forschungsprogramme zu fördern**.</dcddm:description>**

DCDDM:ACRONYM

Definition	An acronym of the collection.
Comment	In case the collection is well known by or often associated with an acronym. E.g. "Marx-Engels-Gesamtausgabe" or "MEGA".
Value	String
Obligation	O1
Example (as XML)	**<dcddm:acronym>**MEAG**</dcddm:acronym>**

DCDDM:SIZE

Definition	The size of the collection i. e. the number of items.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsextent
Comment	The size or extent of the collection should be described by providing the number of the collection`s items. If the exact number is unknown or the collection is still growing a rough estimation should be provided.
Value	Integer
Obligation	O1
Example (as XML)	**<dcddm:size>**12345**</dcddm:size>**

DCDDM:LANGUAGE

Definition	A language of the items in the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldclanguage
Comment	A value string must be provided; The value string should be a language name in the form of the three character code defined by ISO 639-3. To facilitate mappings and transformations of already existing collection descriptions the use of the two character code defined by ISO 639-1 is possible but ISO 639-3 is the recommended standard. Indicate the chosen standard through the attribute **isoStandard.** Where the collection covers multiple languages, a separate statement should be used for each language.
Value	String Syntax Encoding Scheme: ISO639-1 or ISO639-3 Controlled Vocabulary: ISO639-1 or ISO639-3
Obligation	O+
Example (as XML)	**<dcddm:language isoStandard="**ISO639-3**">**deu**</dcddm:language>** **<dcddm:language isoStandard="**ISO639-3**">**eng**</dcddm:language>**

DCDDM:ITEMTYPE

Definition	The nature or genre of one or more items within the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#colclditemType
Comment	The value strings are provided by DCMI Type Vocabulary. See: http://dublincore.org/documents/dcmi-type-vocabulary/#H7. Where the collection includes items of multiple types, the significance of each **dcddm:itemType** for the collection is expressed through the order of the elements beginning with the most important one.
Value	String Controlled Vocabulary: **dcddm:itemTypeValues**
Obligation	O+
Example (as XML)	**<dcddm:itemType>**Image**</dcddm:itemType>** **<dcddm:itemType>**Physical Object**</dcddm:itemType>** **<dcddm:itemType>**Text**</dcddm:itemType>**

DCDDM:COLLECTIONDESCRIPTIONRIGHTS

Definition	A statement of any rights held in/over the collection description.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldcrights

Comment	Provides information concerning the collection description and NOT the items of the collections. The value strings are provided and maintained by DARIAH-DE.
Value	String Controlled Vocabulary: **dcddm:rightsValues**
Obligation	O1
Example (as XML)	**<dcddm:collectionDescriptionRigths>**Attribution Non-Commercial Share Alike v1.0(CC BY-NC-SA)**</dcddm:collectionDescriptionRigths >**

DCDDM:ITEMRIGHTS

Definition	A statement of any rights held in/over the collection´s items.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldcrights
Comment	Provides information concerning the collection´s items. Where the collection includes items with different rights, use several **dcddm:itemRights** statements. The significance of each **dcddm: itemRights** is expressed through the order of the elements beginning with the most important one. Use of standard vocabulary required. Provided values are based on DARIAH-DE suggestions and maintained by DARIAH-DE.
Value	String Controlled Vocabulary: **dcddm:rightsValues**
Obligation	O+
Example (as XML)	**<dcddm:itemRights>**Attribution v1.0(CC BY)**</dcddm:itemRights>** **<dcddm:itemRigths>** Attribution Non-Commercial Share Alike v1.0(CC BY-NC-SA) **</dcddm:itemRights>**

DCDDM:ACCESSRIGHTS

Definition	A statement of any access restrictions placed on the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsaccessRights
Comment	Use of standard vocabulary required. Provided values are based on DARIAH-DE suggestions and maintained by DARIAH-DE.
Value	String Controlled Vocabulary: **dcddm:accesRightsValues**
Obligation	M1
Example (as XML)	**<dcddm:accessRights>**free**</dcddm:accessRights>**

DCDDM:ACCRUALMETHOD

Definition	A method by which items are added to a collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsaccrualMethod
Comment	Recommended best practice is to use a value from a standard vocabulary provided and maintained by DARIAH-DE but based on http://dublincore.org/groups/collections/accrual-method/. **A value string must be provided.** Where multiple methods apply, a separate statement should be used for each method. The importance of each **dcddm:accrualMethod** statement is expressed by the applied order, beginning with the most important one.
Value	String Controlled Vocabulary: **dcddm:accrualMethodsValues**
Obligation	O+
Example (as XML)	**<dcddm:accrualMethod>**itemcreation**</dcddm:accrualMethod>** **<dcddm:accrualMethod>**license**</dcddm:accrualMethod>**

DCDDM:ACCRUALPERIODICITY

Definition	A frequency with which items are added to a collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsaccrualPeriodicity
Comment	Recommended best practice is to use a value from a standard vocabulary provided and maintained by DARIAH-DE but based on http://dublincore.org/groups/collections/frequency/ A value string must be provided.
Value	String Controlled Vocabulary: **dcddm:accrualPeriodicityValues**
Obligation	O1
Example (as XML)	**<dcddm:accrualPeriodicity>**ongoing**</dcddm:accrualPeriodicity>**

DCDDM:ACCRUALPOLICY

Definition	A policy governing the addition of items to a collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsaccrualPolicy
Comment	Recommended best practice is to use a value from a standard vocabulary provided and maintained by DARIAH-DE but based on

	http://dublincore.org/groups/collections/accrual-policy/ A value string must be provided. Where multiple methods apply, a separate statement should be used for each method. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	String Controlled Vocabulary: **dcddm:accrualPolicyValues**
Obligation	O+
Example (as XML)	**<dcddm:accrualPolicy>**weekly**</dcddm:accrualPolicy>**

DCDDM:PROVENANCE

Definition	A statement of any changes in ownership and custody of the collection that is significant for its authenticity, integrity and interpretation.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsprovenance
Comment	To record changes in ownership and custody in multiple languages, use multiple statements and in each statement associate the value string with the appropriate language tag **xml:lang**. Use only one statement to report all changes, instead of one statement for each changement. Do not just note the name of places/persons or institution without providing some more information on the number of the concerning items or on the date the described changes took place.
Value	String **dcddm:simpleLiteral**
Attribute	Attribute: **xml:lang** Value: two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. Usage: optional but recommended
Obligation	O+
Example (as XML)	**Don´t:** **<dcddm:provenance xml:lang=”deu”>**Duisburg/Essen**</dcddm:provenance>** **Do:** **<dcddm:provenance xml:lang=”deu”>**Rund zwei Drittel der Objekte der Sammlung waren bis 2012 im Besitz der Stadt Duisburg/Essen.**</dcddm:provenance>**

DCDDM:AUDIENCE

Definition	A class of entity for whom the collection is intended or useful.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsaudience
Comment	A value string must be provided. Where a collection is intended or useful for multiple audiences, a separate statement should be used for each audience. The importance of each statement is expressed by the applied order, beginning with the most important one. To record descriptions in multiple languages, use multiple statements and in each statement associate the value string with the appropriate language tag **xml:lang**.
Value	String **dcddm:simpleLiteral**
Attribute	Attribute: **xml:lang** Value: two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. Usage: optional but recommended
Obligation	O+
Example (as XML)	**<dcddm:audience xml:lang="eng">**Historians**</dcddm:audience>** **<dcddm:audience xml:lang="deu">**Historiker**</dcddm:audience>**

DCDDM:SUBJECT

Definition	A subject or topic associated with the items in the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldcsubject
Comment	Keywords or subject descriptors associated with items in the collection. The terms used indicate the subject matter of the collection. To enable homogenous descriptions the values of dcddm:subjects have to be taken from a controlled vocabulary, namely from GND, LCSH and DDC though the preferred vocabularies are GND and LCSH. To avoid ambiguity the subjects must be referred by their specific identifiers. To keep up the collection description´s human readability a label element should be provided. To record multiple languages, use multiple labels. Where multiple keywords or subject descriptors are provided, a separate statement should be used for each keyword or descriptor. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:subjectValues** (M1) **dcddm:label** (O+)

Obligation	O+
Example (as XML)	**<dcddm:subject>** **<dcddm:subjectValue normdataRecord="LCSH">** sh85136255 **</dcddm:subjectValue>** **<dcddm:label xml="eng">**Tourism**</dcddm:label>** **</dcddm:subject>** **<dcddm:subject>** **<dcddm:subjectValue normdataRecord="GND">**4018406-7**</dcddm:subjectValue>** **<dcddm:label xml:lang="deu">**Tourismus**</dcddm:label>** **</dcddm:subject>** **<dcddm:subject>** **<dcddm:subjectValue normdataRecord="DDC">**348.48**</dcddm:subjectValue>** **<dcddm:label xml:lang="eng">**Tourism**</dcddm:label>** **</dcddm:subject>**

DCDDM:SPATIAL

Definition	An indicator of the spatial scope of the resource.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsspatial
Comment	To enable homogenous descriptions the values of dcddm:spatial have to be taken from a controlled vocabulary, namely from GND, GeoNames and Getty. Preferred are GeoNames and Getty because both provide GPS-coordinates. To avoid ambiguity the locations must be referred by their specific identifiers. To keep up the collection description´s human readability a label element should be provided. To record multiple languages, use multiple labels. Where multiple spatial descriptors are provided, a separate statement should be used for each descriptor. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:spatialValues** (O1) **dccdm:label** (M+)
Obligation	O+
Example (as XML)	**<dcddm:spatial>** **<dcddm:spatialValues normdataRecord="GeoNames">** 2769848 **</dcddm:spatialValues>** **<label xml:lang="deu">**Oberösterreich**</dcddm:label>** **<label xml:lang="eng">**Upper Austria**</dcddm:label>** **</dcddm:spatial>** **<dcddm:spatial>** **<dcddm:spatialValues normdataRecord="GeoNames">**

	2772395 **</dcddm:spatialValues>** **<label xml:lang=”deu”>**Linz**</dcddm:label>** **</dcddm:spatial>**

DCDDM:TEMPORAL

Definition	An indicator of the temporal scope of the resource.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermstemporal
Comment	To enable homogenous descriptions the values of dcddm:temporal have to follow a syntax encoding scheme To keep up the collection description´s human readability a label element should be provided. To record multiple languages, use multiple labels. Where multiple temporal descriptors are provided, a separate statement should be used for each descriptor. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:temporalValues** (M1) **dcddm:label** (O+)
Obligation	O+
Example (as XML)	**<dcddm:temporal>** **<dcddm:temporalValues>**800/1500**</dcddm:temporalValues>** **<dcddm:label xml:lang=”deu”>**Mittelalter**</dcddm:label>** **</dcddm:temporal>**

DCCDM:COLLECTIONDESCRIPTIONCREATED

Definition	A date of the creation of this collection description
Comment	To enable homogenous descriptions the values of dcddm:collectionDescriptionCreated have to follow a syntax encoding scheme.
Value	Syntax encoding scheme: **dcddm:periodeValues**
Obligation	O1
Example (as XML)	**<dcddm:collectionDescriptionCreated>** 2015-03-12 **</dcddm:collectionDescriptionCreated>**

DCCDM:COLLECTIONCREATED

Definition	A range of dates over which the collection was accumulated.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermscreated
Comment	To enable homogenous descriptions the values of **dcddm:collectionCreated** have to follow a syntax encoding scheme. To keep up the collection description´s human readability a label element should be provided. To record multiple languages, use multiple labels. Where multiple temporal descriptors are provided, a separate statement should be used for each descriptor. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:temporalValues** (M1) **dcddm:label** (O+)
Obligation	O+
Example (as XML)	**<dcddm:collectionCreated>** **<dcddm:temporalValues>**1786/1832**</dcddm:temporalValues>** **<dcddm:label xml:lang="deu">**Weimarer Klassik im engeren Sinn**</dcddm:label>** **</dcddm:collectionCreated>**

DCDDM:DATEITEMSCREATED

Definition	A range of dates over which the individual items within the collection were created.
See	http://dublincore.org/groups/collections/collection-application-profile/#colcldateItemsCreated
Comment	To enable homogenous descriptions the values of **dcddm:created** have to follow a syntax encoding scheme To keep up the collection description´s human readability a label element should be provided. To record multiple languages, use multiple labels. Where multiple temporal descriptors are provided, a separate statement should be used for each descriptor. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:temporalValues** (M1) **dcddm:label** (O+)

Obligation	O+
Example (as XML)	**<dcddm:dateItemsCreated>** **<dcddm:temporalValues>**-40000/-9700**</dcddm:temporalValues>** **<dcddm:label xml:lang="nld">**Laatpaleolithicum**</dcddm:label>** **</dcddm:dateItemsCreated>**

DCDDM:CREATOR

Definition	An entity who gathers (or gathered) the items in a collection together.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldccreator
Comment	Holds either a **dcddm:AGENT** or a reference to a **dccdm:AGENT**. To record multiple creators, separate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:AGENT**(M1)
Obligation	O+
Example (as XML)	**<dcddm:creator>** **<dcddm:AGENT>** … **</dcddm:AGENT>** **</dcddm:creator>**

DCDDM:OWNER

Definition	An entity who has legal possession of the collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#colmarcrelOWN
Comment	Holds either a **dcddm:AGENT** or a reference to a **dccdm:AGENT**. To record multiple creators, seperate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:AGENT**(M1)
Obligation	O+
Example (as XML)	**<dcddm:owner>** **<dcddm:AGENT>** … **</dcddm:AGENT>** **</dcddm:owner>**

DCDDM:ISLOCATEDAT

Definition	A location where the collection is held.
See	http://dublincore.org/groups/collections/collection-application-profile/#colcldisLocatedAt
Comment	Holds a **dcddm:address** statement. To record multiple locations, separate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one. In case the collection´s item are digitized it is recommended to name the address related with the person/organisation that has legal possession of the collection. Usually this person/organisation is also referenced by **dcddm:owner**.
Value	**dcddm:address** (M1)
Obligation	O+
Example (as XML)	**<dcddm:isLocatedAt>** **<dcddm:address>** … **</dcddm:address>** **</dcddm:isLocatedAt>**

DCDDM:HASPARTOF

Definition	The described resource includes the referenced resource either physically or logically. A second collection contained within the current collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermshasPart
Comment	Holds either a **dcddm:COLLECTION** or a reference to a **dccdm:COLLECTION**. To record multiple collections, separate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:COLLECTION** (M1)
Obligation	O+
Example (as XML)	**<dcddm:hasPartOf>** **<dcddm:COLLECTION>** … **</dcddm:COLLECTION>** **</dcddm:hasPartOf>**

DCDDM:ISPARTOF

Definition	The described resource is a physical or logical part of the referenced resource. A second collection that contains the current collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsisPartOf
Comment	Holds either a **dcddm:COLLECTION** or a reference to a **dccdm:COLLECTION**. To record multiple collections, separate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:COLLECTION (M1)**
Obligation	O+
Example (as XML)	**<dcddm:isPartOf>** **<dcddm:COLLECTION>** … **</dcddm:COLLECTION>** **</dcddm:isPartOf>**

DCDDM:ASSOCIATEDCOLLECTION

Definition	A second collection that is associated with the current collection.
See	http://dublincore.org/groups/collections/collection-application-profile/#coldctermsisPartOf
Comment	Holds either a **dcddm:COLLECTION** or a reference to a **dccdm:COLLECTION**. To record multiple collections, separate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	**dcddm:COLLECTION**
Obligation	O+
Example (as XML)	**<dcddm:associatedCollection>** **<dcddm:COLLECTION>** … **</dcddm:COLLECTION>** **</dcddm:associatedCollection>**

DCDDM:ASSOCIATEDPROJECT

Definition	Names and shortly describes the project in which context the collection was created.
Comment	It is recommended to provide a short description of the project and to provide a reference (URL) where further information can be found. To record information in multiple languages.
Value	**dcddm:description** (O1) **dcddm:hasWebPage** (O1)

DCDDM:METADATAENCODINGSCHEME

Definition	Encoding scheme used for modeling the object´s metadata of the collection.
Comment	Holds the name of a well-established and documented schema (e.g. oai_dc, TEI-Header). To record multiple schemes, separate statements should be used The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	String Fixed vocabulary: **dcddm:encodingSchemeValues**
Obligation	O+
Example (as XML)	**<dcddm:metadataEncodingScheme>**oai_dc**</dcddm:metadataEncodingScheme>**

DCDDM:ITEMENCODINGSCHEME

Definition	Encoding scheme used for modeling the collection´s objects.
Comment	Holds the name of a well-established and documented schema (e.g. LIDO, METS, TEI). Provided values are based on DARIAH-DE suggestions. To record multiple schemes, separate statements should be used. The importance of each statement is expressed by the applied order, beginning with the most important one.
Value	String Fixed vocabulary: **dcddm:encodingSchemeValues**
Obligation	O+
Example (as XML)	**<dcddm:itemEncodingScheme>**TEI**</ dcddm:itemEncodingScheme**

DCDDM:HASOAI-PMH

Definition	The (metadata of the) collection´s item are accessible through OAI-PMH.
Comment	If the collection does not provide OAI-PMH ignore this element.
Value	**dcddm:baseURL**(M1) **dcddm:OAISet** (M1) **dcddm:listMetadataFormats** (M+) **dcddm:queryPolicies** (O1)
Obligation	O+

DCDDM:HASREST-API

Definition	The (metadata of the) collection´s item are accessible via REST-API
Comment	If the collection does not provide a REST-API this element should be ignored.
Value	**dcddm:baseURL** (M1) **dcddm:supportedRESTMethods** (M+) **dcddm:itemEncodingScheme** (O+) **dcddm:queryPolicies** (O1) **dcddm:furtherInfo** (O1)
Obligation	O1

DCDDM:HASSPARQLENDPOINT

Definition	The (metadata of the) collection´s item are accessible via REST-API
Comment	If the collection does not provide a REST-API this element should be ignored.
Value	**dcddm:baseURL** (M1) **dcddm:supportedRESTMethods** (M+) **dcddm:itemEncodingScheme** (O+) **dcddm:queryPolicies** (O1) **dcddm:furtherInfo** (O1)
Obligation	O1

DCDDM:HASOPAC

Definition	The metadata of the collection´s item are accessible via OPAC (**O**nline **P**ublic **A**ccess **C**atalogue)
Comment	If the collection is not accessible through an OPAC this element should be ignored.

Value	**dcddm:baseURL** (M1) **dcddm:OPACCollectionIdentifier** (O1)
Obligation	O1

DCDDM:HASBEACON

Definition	BEACON is a data interchange format for large numbers of uniform links. The collection provides a BEACON-file.
See	http://gbv.github.io/beaconspec/beacon.html
Comment	If the collection does not provide a BEACON-file this element should be ignored. If the collection provides more than one BEACON-file use several statements for each file.
Value	**dcddm:baseURL** (M1) **dcddm:beaconPrefix** (O1)
Obligation	O1

DCDDM:HASREADINGROOM

Definition	The collection´s items can be examined in a reading room.
Comment	If there is not any reading room this statement should be ignored.
Value	**dcddm:address** (M1) **dcddm:furtherInformation** (O1)
Obligation	O1

DCDDM:REPRODUCTIONPOSSIBILITIES

Definition	The owner allows the users to make reproductions of the collection´s items or provides a reproduction service.
Comment	The reproduction possibilities can either be described in plain text or through a reference (URL) to an already existing description. If there are not any reproduction possibilities then this statement should be ignored.
Value	**dcddm:description** (M1)
Obligation	O1

DCDDM:AGENTTYPE

Definition	The nature or genre of the resource.
See	http://dublincore.org/documents/dcmi-terms/#terms-type
Comment	Recommended best practice is to use the controlled vocabulary provided by DARIAH-DE **dcddm:agentTypeValues**
Value	String Fixed vocabulary: **dcddm:agentTypeValues**
Obligation	M1
Example (as XML)	**<dcddm:agentType>**person**</dcddm:agentType>**

DCDDM:NAME

Definition	A name or proper noun or noun phrase.
See	http://www.tei-c.org/release/doc/tei-p5-doc/de/html/ref-name.html
Comment	Should contain a person´s surname or the name of the described organisation. It is recommended to follow the naming conventions provided by the GND.
Value	String
Obligation	M1
Example (as XML)	**<dcddm:name>**Herzog August Bibliothek**</dcddm:name>** **<dcddm:name>**Franz Joseph I., Österreich, Kaiser**</dcddm:name>** **<dcddm:name>**Mozart**</dcddm:name>**

DCDDM:FORENAME

Definition	A forename, given or baptismal name.
See	http://www.tei-c.org/release/doc/tei-p5-doc/de/html/ref-forename.html
Comment	Only used for persons. In case of more than one forenames use only one statement to record all names. It is recommended to follow the naming conventions provided by the GND.
Value	String
Obligation	O1
Example (as XML)	**<dcddm:forename>**Franz Joseph**</dcddm:forename>** **<dcddm:forename>**Wolfgang Amadeus**</dcddm:forename>**

DCDDM:IDENTIFIER

See dccdm:COLLECTION dcddm:identifier

DCDDM:PROVIDEDIDENTIFIER

See dccdm:COLLECTION dcddm:providedIdentifier

DCDDM:ADDRESS

Definition	Contains a postal address, for example of a publisher, an organization, or an individual.
See	http://www.tei-c.org/release/doc/tei-p5-doc/de/html/ref-address.html
Comment	To enhance the data quality and to support data ingest, this statements holds the subelements **dcddm:street**, **dcddm:houseNumber**, **dcddm:postalCode**, **dcddm:place** and **dclap:country**.
Value	**dcddm:street** **dcddm:houseNumber** **dcddm:place** **dclap:country**
Obligation	O1
Example (as XML)	**<dcddm:address>** **<dcddm:street>**Lessingplatz**</dcddm:street>** **<dcddm:houseNumber>**1**</dcddm:houseNumber>** **<dcddm:postalCode>**38304**</dcddm:postalCode>** **<dcddm:place>** **<dcddm:spatial>** **<dcddm:spatialValues normdataRecord="GeoNames">** 6557395 **</dcddm:spatialValues>** **<dcddm:label xml:lang="deu">**Wolfenbüttel**</ldcddm:abel>** **<dcddm:spatial>** **</dcddm:place>** **<dcddm:country>** **<dcddm:spatial>** **<dcddm:spatialValues normdataRecord="GeoNames">** 2921044 **</dcddm:spatialValues>** **<dcddm:label xml:lang="deu">**Englisch**</dcddm:label>** **</dcddm:spatial>** **</dcddm:country>**

	</dcddm:address>

DCDDM:STREET

Definition	The street´s name of post address.
Value	String
Obligation	O1
Example (as XML)	**<dcddm:street>**Lessingplatz**</dcddm:street>**

DCDDM:HOUSENUMBER

Definition	The house number of the agent´s post address.
Value	String
Obligation	O1
Example (as XML)	**<dcddm:houseNumber>**1**</dcddm:houseNumber>**

DCDDM:POSTALCODE

Definition	The postal code of the agent´s post address.
Comment	No use of country prefixes foreseen, e.g. use 38304 instead of D-38304.
Value	String
Obligation	O1
Example (as XML)	**<dcddm:postalCode>**38304**</dcddm:postalCode>**

DCDDM:PLACE

Definition	Holds information related to the place (city).
Comment	The place should be linked to some normdata and provided with a human readable label.
Value	**dcddm:spatial**
Obligation	O1
Example (as XML)	**<dcddm:place>** **<dcddm:spatial>** **<dcddm:spatialValues normdataRecord="GeoNames">** 6557395

	</dcddm:spatialValues> **<dcddm:label xml:lang="deu">**Wolfenbüttel**</ldcddm:abel>** **</dcddm:spatial>** **</dcddm:place>**

DCDDM:COUNTRY

Definition	Names the country where the address is located
Comment	The place should be linked to some normdata and provided with a human readable label.
Value	**dcddm:spatial**
Obligation	O1
Example (as XML)	**<dcddm:country>** **<dcddm:spatial>** **<dcddm:spatialValues normdataRecord="GeoNames">** 2921044 **</dcddm:spatialValues>** **<dcddm:label xml:lang="deu">**Englisch**</dcddm:label>** **</dcddm:spatial>** **</dcddm:country>**

DCDDM:EMAIL

Definition	Provides an email address related to the AGENT
Comment	Only provide email addresses when you can be sure that they will stay responsive for as long as the collection description is meant to be public or you have the resources to update them.
Value	String Syntax Encoding Scheme: email-address
Obligation	O1
Example (as XML)	**<dcddm:email>**max.mustermann@mail.com**</dcddm:email>**

DCDDM:WEBPAGE

Definition	Provides a web page related to the resource.
Comment	Only provide web pages when you can be sure that they will stay online for as long as the collection description is meant to be public or you have the resources to keep them alive.
Value	String

	Syntax Encoding Scheme: URI
Obligation	O1
Example (as XML)	**<dcddm:webPage>**http://de.dariah.eu**<dcddm:webPage>**

DCDDM:PHONENUMBER

Definition	Provides a phone number related to the AGENT.
Comment	Only provide phone numbers when you can be sure that they will stay online for as long as the collection description is meant to be public or you have the resources to keep them update.
Value	String Syntax Encoding Scheme: http://www.din-5008-richtlinien.de/telefonnummern.php
Obligation	O1
Example (as XML)	**<dcddm:phoneNumber>**+49 5331 808-317**<dcddm:phoneNumber>**

DCDDM:LABEL

Definition	A label provides human readable information.
Comment	To record information in multiple languages, use multiple labels and in each label associate the value string with the appropriate language tag.
Value	String
Attribute	Attribute: **xml:lang** Value: two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. Usage: optional but recommended
Obligation	O1

DCDDM:DATE

Definition	A point or period of time associated with an event in the lifecycle of the resource.
See	http://dublincore.org/documents/dcmi-terms/#terms-date
Comment	Date may be used to express temporal information at any level of granularity. In the DCDDM a date must follow ISO8601. See http://www.w3.org/TR/NOTE-datetime.
Value	String Syntax Encdoding Scheme: **dcddm:periodeValues**

TYPES

DCDDM:SIMPLELITERAL

Definition	This is the standard type for all of the DCDDM elements which provide any type of free text as it permits text content only with optional **xml:lang** attribute.
See	http://dublincore.org/schemas/xmls/qdc/dc.xsd
Comment	The usage of a **xml:lang** attribute is recommended.
Value	String
Attribute	Attribute: **xml:lang** Value: two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. Usage: optional but recommended

DCDDM:IDENTIFIERVALUES

Definition	This type is used to provide identifiers as text content and enables the identification of used norm data records by the usage of a matching normdataRecord-attribute.
Comment	In case the provided identifier is taken form a normdata record, the value (string) must follow the norm data record´s syntax encoding scheme.
Value	String Syntax Encoding Schemes defined by used norm data records.
Attribute	Attribute: **normdataRecord** Value: GND, VIAF, other, none Usage: mandatory

DCDDM:SPATIALVALUES

Definition	Contains the identifier of a spatial-concept matching the chosen encodingScheme-attribute and provides a human readable label.
Comment	**dcddm:spatialValues** holds a field providing the code of the location matching the required attribute. A **dcddm:label** should be provided, the usage of several label fields for several languages are permitted.
Value	String Syntax Encoding Scheme provided by GND, GeoNames; Getty **T**hesaurus of **G**eographic **N**ames (TGN).
Label-field	O+
Attribute	Attribute: **normdataRecord**

	Value: GND or GeoNames or TGN Usage: mandatory
Obligation	M1
Example	See dcddm:spatial

ATTRIBUTES

@NORMDATARECORD

The attribute provides information about the used norm data record.

Value	Definition/Comment/Recommendation/Default
When used for dcddm:identifierValues:	
GND	**Definition**: GND stands for INTEGRATED AUTHORITY FILE or "Gemeinsame Normdaten Datei" in German and is an authority file for Persons, Corporate bodies, Conferences and Events, Geographic Information, Topics and Works. It is operated cooperatively by the German National Library. See: http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html and https://portal.dnb.de
VIAF	**Definition**: VIAF stands for VIRTUAL INTERNATIONAL AUTHORITY FILE and is an international service designed to provide convenient access to the world's major name authority files. See: http://www.oclc.org/viaf.en.html
Other	**Definition**: The used identifier is taken from another norm data record then GND and VIAF. **Comment**: Please contact DARIAH-DE so the norm data record of your choice might become part of the DCDDM.
None	**Definition**: Use this attribute in case your identifier is not taken from any norm data record. **default**
When used for dcddm:spatialValues:	
TGN	**Definition**: The set of places specified by the Getty Thesaurus of Geographic Names. See: http://www.geonames.org/
GeoNames	**Definition**: The set of places specified by GeoNames geographical database. See: http://www.geonames.org/
GND	**Definition**: The set of places specified by the Deutschen Nationalbibliothek. See: https://portal.dnb.de
When used for dcddm:spatialValues:	
DDC	**Definition**: The set of conceptual resources specified by the Dewey Decimal Classification. (http://purl.org/dc/terms/DDC) See: http://www.oclc.org/dewey/
LCSH	**Definition**: The set of labeled concepts specified by the Library of Congress Subject Headings.(http://purl.org/dc/terms/LCSH) See: http://id.loc.gov/authorities/subjects.html
GND	**Definition**: The set of conceptual resources specified by the Deutschen Nationalbibliothek.

	See https://portal.dnb.de

@XML:LANG

The attribute provides information about the used language.

Value	Definition/Comment/Recommendation/Default
	Two to three lower case letters matching ISO639-1 or ISO639-3. Use of ISO639-3 is recommended. **Usage**: optional but recommended

@ISOSTANDARD

The attribute provides information about the used isoStandard.

Value	Definition/Comment/Recommendation/Default
ISO639-1	Two lower case letters matching ISO639-1
ISO639-3	The lower case letters matching ISO639-2

CONTROLLED VOCABULARY

DCDDM:AGENTTYPEVALUES

Fixed vocabulary naming possible types of agents. Values are taken from DARIAH-DE.

Value	Definition/Comment
Person	The AGENT is a person
Organisation	The AGENT is any kind of organisation or institution.

DCDDM:COLLECTIONTYPEVALUES

Fixed vocabulary naming possibly types of collections. Values are taken from DARIAH-DE (TODO).

Value	Definition/Comment
Holding Collection	(TODO)
Referential Collection	(TODO)

DCDDM:ACCESSRIGHTSVALUES

Fixed vocabulary naming possible restrictions while accessing the collection´s items. Values are taken from DARIAH-DE.

Value	Definition/Comment
free	
free but registration needed	
soft paywall	A paywall is a system that prevents Internet users from accessing webpage content without a paid subscription. There are both "hard" and "soft" paywalls in use. "Hard" paywalls allow minimal to no access to content without subscription, while "soft" paywalls allow more flexibility in what users can view without subscribing, such as selective free content and/or a limited number of articles per month, or the sampling of several pages of a book or paragraphs of an article. See: http://en.wikipedia.org/wiki/Paywall
hard paywall	
not specified	

DCDDM:RIGHTSVALUES

Fixed vocabulary provided by DARIAH-DE.

Value	Definition/Comment
Attribution v1.0 (CC BY)	
Attribution Share Alike v1.0 (CC BY-SA)	
Attribution No Derivatives v1.0 (CC BY-ND)	
…	

DCDDM:ACCRUALMETHODSVALUES

A fixed vocabulary naming methods by which items are added to a collection. Values are taken from http://dublincore.org/groups/collections/accrual-method/

Value	Definition/Comment
deposit	The permanent addition of items to the collection, where the transfer of ownership is conditional on certain requirements or restrictions, but without financial payment or reciprocal transfer of items.
donation	The permanent addition of items to the collection through the transfer of ownership, without financial payment.
purchase	The permanent addition of items to the collection through the transfer of ownership, accompanied by one or more financial payments.
loan	The temporary addition of items to the collection with no transfer of ownership, without financial payment.
licence	The temporary addition of items to the collection with no transfer of ownership, accompanied by one or more financial payments.
itemcreation	The permanent addition of items to the collection as a result of item creation by the owner of the collection [or by any other agent related to the collection]

DCDDM:ACCRUALPERIODICITYVALUES

A fixed vocabulary naming frequencies with which a repeatable event occurs. Values are taken from http://dublincore.org/groups/collections/frequency/

Value	Definition/Comment
deposit	The permanent addition of items to the collection, where the transfer of ownership is conditional on certain requirements or restrictions, but without financial payment or reciprocal transfer of items.
donation	The permanent addition of items to the collection through the transfer of ownership, without financial payment.
purchase	The permanent addition of items to the collection through the transfer of ownership, accompanied by one or more financial payments.
loan	The temporary addition of items to the collection with no transfer of ownership, without financial payment.
licence	The temporary addition of items to the collection with no transfer of ownership, accompanied by one or more financial payments.
itemcreation	The permanent addition of items to the collection as a result of item creation by the owner of the collection [or by any other agent related to the collection]

DCDDM:ACCRUALPERIODICITYVALUES

Value	Definition/Comment
triennial	The event occurs every three years.
biennial	The event occurs every two years.
annual	The event occurs once a year.
semi-annual	The event occurs twice a year.
threeTimesAYear	The event occurs three times a year.
quarterly	The event occurs every three months.
bimonthly	The event occurs every two months.
monthly	The event occurs once a month.
semimonthly	The event occurs twice a month.
threeTimesAMonth	The event occurs three times a month.
biweekly	The event occurs every two weeks.
weekly	The event occurs once a week.
semiweekly	The event occurs twice a week.
threeTimesAWeek	The event occurs three times a week.

daily	The event occurs once a day.
continuous	The event repeats without interruption.
irregularly	The event occurs at uneven intervals.
periodical	The event occurs at intervals which are not described in this list.
finalized/stable	The collection is complete and items are no longer added to the collection
not specified	No information can be provided

DCDDM:ACCRUALPOLICYVALUES

A fixed vocabulary naming policies governing the addition of items is added to a collection. Values and Definitions taken from http://dublincore.org/groups/collections/accrual-policy/

Value	**Definition/Comment**
closed	A fixed vocabulary naming policies governing the addition of items are added to a collection.
passive	A policy that items are added to the collection only in response to the initiative of an external agent.
active	A policy that items are actively sought for addition to the collection.
partial	A policy that items are actively sought for addition to a specific part of the collection.

DCDDM:ITEMTYPEVALUES

Values and Definitions taken from: http://dublincore.org/documents/dcmi-type-vocabulary/#H7

Value	**Definition/Comment**
Collection	An aggregation of resources. A collection is described as a group; its parts may also be separately described.
Dataset	Data encoded in a defined structure. Examples include lists, tables, and databases. A dataset may be useful for direct machine processing.
Event	A non-persistent, time-based occurrence. Metadata for an event provides descriptive information that is the basis for discovery of the purpose, location, duration, and responsible agents associated with an event. Examples include an exhibition, webcast, conference, workshop, open day, performance, battle, trial, wedding, tea party, and conflagration.
Image	A visual representation other than text. Examples include images and photographs of physical objects, paintings, prints, drawings, other images and graphics, animations and moving pictures, film, diagrams, maps, musical notation. Note that Image may include both electronic and physical

	representations.
InteractiveResource	A resource requiring interaction from the user to be understood, executed, or experienced. Examples include forms on Web pages, applets, multimedia learning objects, chat services, or virtual reality environments.
MovingImage	A series of visual representations imparting an impression of motion when shown in succession. Examples include animations, movies, television programs, videos, zoetropes, or visual output from a simulation. Instances of the type Moving Image must also be describable as instances of the broader type Image.
PhysicalObject	An inanimate, three-dimensional object or substance. Note that digital representations of, or surrogates for, these objects should use Image, Text or one of the other types.
Service	A system that provides one or more functions. Examples include a photocopying service, a banking service, an authentication service, interlibrary loans, a Z39.50 or Web server.
Software	A computer program in source or compiled form. Examples include a C source file, MS-Windows .exe executable, or Perl script.
Sound	A resource primarily intended to be heard. Examples include a music playback file format, an audio compact disc, and recorded speech or sounds.
StillImage	A static visual representation. Examples include paintings, drawings, graphic designs, plans and maps. Recommended best practice is to assign the type Text to images of textual materials. Instances of the type Still Image must also be describable as instances of the broader type Image.
Text	A resource consisting primarily of words for reading. Examples include books, letters, dissertations, poems, newspapers, articles, archives of mailing lists. Note that facsimiles or images of texts are still of the genre Text.

DCDDM:RESTMETHODSVALUES

A list of methods supported by a REST-API. Values and Definitions taken from:
http://www.restapitutorial.com/lessons/httpmethods.html

Value	**Definition/Comment**
GET	The HTTP GET method is used to **read** (or retrieve) a representation of a resource. In the “happy” (or non-error) path, GET returns a representation in XML or JSON and an HTTP response code of 200 (OK). In an error case, it most often returns a 404 (NOT FOUND) or 400 (BAD REQUEST).
POST	The POST verb is most-often utilized to **create** new resources. In particular, it's used to create subordinate resources. That is, subordinate to some other (e.g. parent) resource. In other words, when creating a new resource, POST to the parent and the

	service takes care of associating the new resource with the parent, assigning an ID (new resource URI), etc.
PUT	PUT is most-often utilized for **update** capabilities, PUT-ing to a known resource URI with the request body containing the newly-updated representation of the original resource.
DELETE	DELETE is pretty easy to understand. It is used to **delete** a resource identified by a URI.

DCDDM:ENCODINGSCHEMEVALUES

A list of encoding schemes, used to model objects and the object´s metadata.

TODO: Create and maintain a controlled vocabulary – maybe by harvesting the Schema registry.

Value	**Definition/Comment**
TEI-P4	
TEI-P5	
LIDO	
METS	
OAI_DC	
DC Simple	

SYNTAX ENCODING SCHEMES

DCDDM:PERIODVALUES

Definition	This type is used to validate dates against ISO8601. It validates strings against special regular expressions (RegEx) patterns.
See	ISO8601
Value	String
RegEx	[\d{,4}][-\d\d]+[-\d\d]+(/|--)[\d{,4}][-\d\d]+[-\d\d]+ or [\d{,4}][-\d\d]+[-\d\d]+(/)*

DCDDM:LANGUAGEVALUES

Definition	This type is used to validate string against ISO639-1 or ISO639-3. It validates strings against special regular expressions (RegEx) patterns.
See	ISO639-1 ISO639-3
Value	String
RegEx	[a-z][a-z][a-z]?

XS:ANYSTRING

Definition	The string data type can contain characters, line feeds, carriage returns, and tab characters.
See	http://www.w3schools.com/schema/schema_dtypes_string.asp

XS:ANYURI

Definition	The anyURI data type is used to specify a URI.
See	http://www.w3schools.com/schema/schema_dtypes_misc.asp