Terminology Registry Scoping Study (TRSS): Excerpt on Metadata

The purpose of this document is to invite feedback on potential terminology registry metadata for describing the controlled vocabularies.

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1   TRSS introduction

As part of its Capital Funding Programme, the Joint Information Systems Committee (JISC) is supporting further work to realize a rich information environment within the learning and research communities. This scoping study analyses issues related to the potential delivery of a terminology registry as a shared infrastructure service within the UK's further and higher education's information environment (IE).

1.1   Purpose

The study's overall aims are:

- To inform the development of shared infrastructure for resource discovery;

- To describe the scope and potential use of a terminology registry;

- To analyse requirements for services based on a terminology registry; and,

- To help stakeholders understand the need for this component of a shared infrastructure.

The report is based on a review of related projects and literature, as well as data collected from a number of interviews and questionnaires. It proposes a terminology registry and describes its characteristics and components, underlying standards, architecture and governance.

1.2   Overview of report contents

The report defines terms and briefly reviews vocabularies of different types. Terminology Registries (TRs) are distinguished from other types of registry. The methodology of the study is described.

The main options for TRs are outlined and the functionality of TRs and terminology services generally is located within an information lifecycle framework for terminology services. The rationale for a general JISC TR is discussed. The use cases gathered, as part of the project, are presented.

Existing TRs and related registries are reviewed and categorised according to the main functionality options. Metadata for existing TRs are reviewed in depth, along with some suggested new metadata elements, and a core/optional set of TR metadata is recommended.

Relevant standards for representation, identifiers and protocols are briefly outlined. Governance issues and their implications are discussed. The report concludes with a set of options and recommendations for the JISC.

1.3   Key points

A TR allows discovery of suitable vocabularies for information or, potentially, use, by exposing rich metadata about them for navigation and retrieval. A TR might hold vocabulary level information only, or additionally comprise the member terms, concepts and relationships, and also provide or list services based on terminology.

The wide range of potential functionality and use cases for a TR demonstrate that a TR offers a distinctive set of potential benefits in its own right. There is significant interest in TRs both nationally and internationally.

There are two general architectural issues for TRs. The first is whether a TR is intended to support human access or m2m. Within the context of the JISC IE and eFramework, we assume that any JISC TR will support both human and m2m access. The second key architectural issue is whether the TR provides access solely to metadata on vocabularies or

whether access is also provided to the vocabulary content (concepts, terms, relationships). Third party terminology services might also be available, adding value to vocabulary content. We thus distinguish three broad elements of TR architecture functionality:

1. Registry provides metadata for each vocabulary and links to vocabulary owner/provider

2. Registry provides metadata on (and links to) any available terminology services

3. Registry provides access to vocabulary content (either by downloading the complete vocabulary, or providing access to a vocabulary's concepts, terms and relationships)

These three elements can be combined independently (in practice, most combinations would include element 1). The three elements correspond to options that JISC might choose from.

2   Metadata in terminology registries

We grouped the metadata into several categories, mostly based on the NKOS Registry (1998) metadata. *Names* of metadata and metadata categories are primarily taken from the same document, with additional ones from other registries. With each category group there is a table showing which of the metadata elements are used by individual registries or relevant documents. In both NKOS documents it is specified which elements are obligatory and which optional, but this is not clear from looking at other registries. A full list of metadata elements with examples for each registry is given in the Appendix (Metadata with examples).

2.1   Product information

Product Information	A	B	C	D	E	F	G	H	I	J	K	L
Product Name/Title	+	+	+	+	+	+	+	+	+	+	+	+
Variant Product Name/Title /Acronym	+	+	+	+		+						
Type of Product	+	+	+		+	+		+		+	+	
Product Description	+	+	+*			+	+		+	+	+	+
Auxiliary Lists	+											
Author/Editor	+	+			+	+			+	+		
Current Version/Edition	+						+					+
Date of Current Version	+	+	+							+	+	
Product Update Frequency	+		+								+	
Available Format(s) and Size	+	+	+			+					+	
Online Availability	+		+		+	+	+**	+	+	+	+	
Notes	+											
URL for Examples	+											

*only have description but containing the marked elements

**also have URI base domain and token

A: NKOS Registry 1998

B: NKOS Registry 2001

C: CENDI

D: Ecoterm (Environmental Terminology and KOS)

E: Food and Agriculture Organization (FAO) of UN

F: Hodge et al. 2007 (10th OFMR)

G: National Science Digital Library Registry

H: ISO 11179 (Information Technology - Metadata registries (MDR))

I: OCLC Terminology Services

J: SPECTRUM Terminology Bank

K: Taxonomy Warehouse

L: Vocman (Becta Vocabulary Bank)

Product name or title is the name of the vocabulary. Terms used in other registries or documents for this element are: name, name (includes acronym), title, and KOS title.

Variant product name or title refers to any other names or titles by which the product is known, including acronyms. Terms used in other registries or documents for this element are: alternative title.

Type of product refers to the type of terminology. In NKOS 1998, a choice needs to be made between the following: authority file, classification system, concept space, dictionary, hierarchical thesaurus, subject heading list, synonym list, topic grouping hierarchy (like the Global Change Master Directory), and other (with an explanation of the new type). Terms used in other registries or documents for this element are: type, resource type, KOS type.

Product description is additional information that does not appear in other metadata. The same term has been used in all registries or documents where present.

Auxiliary lists refers to names of any lists of terms or auxiliary tables that accompany the basic vocabulary product. Only used in NKOS Registry 1998.

Author/editor of a vocabulary. Terms used in other registries or documents for this or closely related elements are: owner/creator, creator, owner, organization name, contributor, author(s), authority.

Current version/Edition is an explanation of status if not published yet, or which edition it is. Terms used in other registries or documents for this element are: status, version.

Date of current version. Terms used in other registries or documents for this element are: date, creation date.

Product update frequency. Terms used in other registries or documents for this element are: revision cycle.

Available format(s) and size refers to the format in which available and size e.g. in bytes if available. Terms used in other registries or documents for format are: format, formats, model.

Online availability is the URL. Terms used in other registries or documents for this element are: URL, identifier. "**Identifier**" refers also to a unique identifier such as URL, ISBN, DOI.

Notes is for any explanations about the formats available, online availability, versions, and other such information.

URL for examples would be a file with examples of actual contents to give a better idea of the nature of the product, if the whole product is not online.

2.2 Scope and usage

Scope and Usage	A	B	C	D	E	F	G	H	I	J	K	L
Major Subject Coverage	+	+		+	+	+			+		+	
Minor Subject Coverage	+	+		+		+					+	
Used by (user community and applications)	+	+					+					
KOS relation		+										

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Major and minor subject coverage are recommended to be standardized from a controlled vocabulary as well. Terms used in other registries or documents for this element are: domain, environmental and non-environmental topics (Ecoterm), subject controlled, keywords, KOS subject and minor subject, subject, subjects covered, categories.

Used by (user communities and applications) lists actual publications or databases for which the vocabulary was designed or the general types of publications that use the vocabulary. Terms used in other registries or documents for this element are: application, community.

KOS relation is a reference in the form of an identifier to a related KOS.

2.3 Vocabulary characteristics

Vocabulary Characteristics	A	B	C	D	E	F	G	H	I	J	K	L
Language(s)	+	+			+	+	+	+	+		+	
Multilingual											+	
Type of Terms (e.g. concept terms, geographic names)	+	+								+		
Entity value		+										
Description of Overall Structure	+											
Source of New Terminology	+											
Number of Preferred Terms or Nodes	+										+	
Number of Non-preferred Terms	+										+	
Types of Relationships	+	+	+								+	
Arrangement of Displays (e.g., alphabetical, hierarchical)	+	+										
Depth of Hierarchy (maximum number of levels)	+										+	
Information given (e.g. Usage notes, References)		+										
Total terms											+	
Top terms											+	
Relationships											+	
Notation scheme											+	
Notation description											+	
Notes fields											+	
Additional information											+	

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Language(s) is an element for language(s) used by the vocabulary. Terms used in other registries or documents for this element are: language identifier.

Multilingual refers to stating whether more than one language is used by the vocabulary.

Type of terms refers to which terms are used by the vocabulary, e.g., concepts, geographic names, corporate names, etc. Terms used in other registries or documents for this element are: entity type, unit of information.

Entity value is listed but not defined yet.

Description of overall structure is an overview of the organizational structure of the vocabulary and any particular design particulars that potential users might need to know.

Source of new terminology serves for describing how new terms are added, e.g., by conversion from another source.

Number of preferred terms or nodes is the number or number range of preferred (valid) terms, the number of individual classification nodes, or the total number of "entry terms" if the vocabulary treats all terms the same. Terms used in other registries or documents for this element are: preferred terms.

Number of non-preferred terms is the number or number range of non-preferred terms. Terms used in other registries or documents for this element are: non-preferred terms.

Types of relationships is for labels or names of relationship types. Terms used in other registries or documents for this element are: relationships.

Arrangement of displays is for the presentation formats, for example alphabetical, hierarchical, tagged format, classification tree, rotated (permutated), facetted, graphical.

Depth of hierarchy is the maximum number of levels. Terms used in other registries or documents for this element are: levels.

Information given includes, for example, usage notes, conceptual relationships, references, date of entry, spelling variants, etc.

Total terms is the number of all terms.

Top terms is the number of top hierarchical terms.

Relationships is the number of terms with relationships to other terms.

Notation scheme is a yes/no for whether there is a notation system.

Notation description is description of the notation system.

Notes fields is what types of notes field there are (e.g., Other, Scope).

2.4   Vendor and contact

Vendor	A	B	C	D	E	F	G	H	I	J	K	L
Vendor Name	+	+	+		+	+	+	+		+	+	+
Vendor Street/Post Office Box	+			+							+	
Vendor City	+											
Vendor State/Province	+											
Vendor Country	+		+									
Vendor Postal Code/ZIP Code	+											
Vendor Voice Phone	+										+	
Vendor TDD/TTY Phone	+											
Vendor Fax	+										+	
Vendor Email	+				+		+					
Vendor Logo URL	+											
Vendor Web Site URL	+										+	
Vendor Hours of Service and Timezone	+											
Vendor Service Description	+											
Contact	A	B	C	D	E	F	G	H	I	J	K	L
Contact Name	+			+								
Contact Voice Phone	+											
Contact Fax	+											
Contact Email	+			+	+							
Contact Web Site URL	+											
More Contact Information	+											
Comments to Registry Editor	+											

A: NKOS Registry 1998

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Vendor name is the name of the vendor who should be contacted about access to and use of the product. Terms used in other registries or documents for this element are: owner/creator, publisher, publisher(s), organization name, authority.

Vendor street/post office box, City, State/Province, Country, Postal code/ZIP code. Terms used in other registries or documents for these elements are: address.

Vendor voice phone. Terms used in other registries or documents for these elements are: phone.

Vendor TDD/TTY phone for if there is a special phone for the hearing impaired.

Vendor service description. The overall services of the producer or vendor so that potential users of the product(s) will have an understanding of the business environment of the organization.

Contact name for if a potential user needs to know the name or position title of a particular person to contact about the product. Terms used in other registries or documents for these elements are: technical contact, content contact.

Contact web site URL for if the contact has a different homepage connected to the vocabulary.

More contact information for any additional information that potential users of the product should know about how to contact.

2.5 Submission

Submission	A	B	C	D	E	F	G	H	I	J	K	L
Submission - organization name								+				+
Submission - organization mail address								+				
Submission - contact								+				
Date when added to registry									+			

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Submission – organization name. Terms used in other registries or documents for this element are: authority.

2.6   Terms and conditions

Terms and Conditions	A	B	C	D	E	F	G	H	I	J	K	L
Purchase Price by Format (or cost-free statement)	+	+				+			+			
Subscription Price by Format	+											
Licensing Availability	+											
Restrictions (or no-restrictions statement)	+											

A: NKOS Registry 1998

B: NKOS Registry 2001

C: CENDI

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Purchase price by format (or cost-free statement) is to provide purchase price information by product format or a statement that the product is freely available. Terms used in other registries or documents for this element are: rights.

Subscription price by format refers to licensing information by format.

Licensing availability is the actual licensing fees or an indication of the approximate fees or general availability for each product format or media that is available for licensing.

Restrictions refers to any restrictions on the use of the product(s) or a general statement about how the arrangements for use can be made.

2.7 Administration record

Administration record	A	B	C	D	E	F	G	H	I	J	K	L
Administration Record - creation date								+				
Administration Record - last change date								+				
Administration Record - effective date								+				
Administration Record - until date								+				
Administration Record - change description								+				
Administration Record - administrative note								+				
Administration Record - explanatory comment								+				
Administration Record - unresolved issue								+				
Administration Record - origin								+				

A: NKOS Registry 1998

B: NKOS Registry 2001

C: CENDI

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2.8 Ontology metadata

In the ontology community, the Ontology Metadata Vocabulary (OMV) has been proposed for metadata about formal ontologies (http://omv.ontoware.org/). A report from 2008 (Palma et al.) defines OMV as a formalized OWL ontology itself. Metadata elements are divided into three categories: required, optional, and extensional. The latter refer to specialised metadata that are not part of the core metadata scheme. Core elements consist of the main class Ontology and various aspects related to creation, management and usage of an ontology such as OntologyTask (purpose), LicenseModel, OntologyLanguage etc. Each element has a number of attributes. For example, class Ontology has the following attributes: URI, version, resourceLocator, name, acronym, description, documentation, keywords, creationDate, modificationDate, naturalLanguage, numberOfClasses, numberOfProperties, numberOfIndividuals, and numberOfAxioms.

In OMV metadata elements are also divided based on the type and purpose of the information they contain: general (general information about the ontology), availability (information about the location of the ontology such as URI or URL), applicability (intended usage or scope of the ontology), format (representation languages in which the ontology is formalized), provenance (organizations contributing to the creation of the ontology), relationship (relationships to other resources such as versioning, extensions etc.), statistics (e.g., number of classes), and other (not covered in earlier categories).

3   Recommended metadata

This section tentatively proposes a terminology registry metadata schema based on metadata listed above as well as requirements collected based on use cases and through contacting experts for this scoping study. The majority of metadata listed in the above tables are recommended here (as core or optional). The ones that are left out are those for which no rationale was recognized in the JISC context. Also, some new metadata elements are added, as recognized through use cases or experts.

This is intended as an initial proposal. More work and empirical evidence is needed to test the suitability of these metadata in a real-life JISC TR. Another reason why these metadata need to be tested is that such rich metadata are time-consuming to create and maintain, which can be a particular issue when a third party, for example a vocabulary provider, would be responsible for creating and maintaining the metadata.

The metadata are grouped into the following suggested categories: general information, scope and usage, detailed characteristics, terms and conditions, and provider. While rich metadata are desirable, because of the time required to create them, some elements are tagged as optional.

We have published the recommended metadata as an outcome on the project website and have invited further feedback beyond the timespan of the TRSS project.

3.1   General information

Vocabulary name

Vocabulary alternative name or acronym (Optional)

Vocabulary type*

Author or editor

Current version/edition

Date of current version/edition

Update frequency (Optional)

Available format(s)

Available terminology services (Optional)

Vocabulary identifier

Vocabulary sample URL (Optional)

Vocabulary description

*A recommendation for future work is to further develop the classification of different vocabulary types.

Elements in this group are intended for creating metadata descriptions that will facilitate the discovery of vocabularies. This group of elements corresponds to the "Product information" group of elements from previous section. The recommended elements are the same as the ones listed in the previous section apart from "Auxiliary lists" and "Notes". The "Auxiliary lists" element was suggested only in NKOS Registry 1998 and refers to names of any lists of terms or auxiliary tables that accompany the basic vocabulary. It is excluded from the recommended elements because no need for it was recognized in this study. The "Notes" element was suggested only in NKOS Registry 1998 and refers to "explanations about the formats available, online availability, versions, and other such information". This information is part of other elements recommended here. Also, a new element "Available terminology services" is

added based on the recognized requirements, especially in Options 2 and 3.

3.2   Scope and usage

Language(s)

Major subjects covered

Minor subjects covered (Optional)

Purpose as given by author/publisher

Used by (Optional)

Description of collections where used (Optional)

Usage case study (Optional)

Use in application profiles (Optional)

Rating. Perhaps an automatically generated rating based on publisher, conformance to standards, spread of usage etc. (Optional)

URL to vocabulary users' discussion board (Optional)

Change notification details (Optional)

Related vocabularies (Optional)

Overlap with related vocabularies (Optional)

Mappings to other vocabularies: which vocabularies, intellectual or automated (Optional)

URL to tutorial for applying vocabulary (Optional)

Elements in this and the following group are intended for recording specific characteristics of vocabularies that will facilitate the evaluation of the vocabulary for a particular application or use. These two groups of elements correspond to the "Scope and usage" and the "Vocabulary characteristics" groups of elements from previous section. For changes from the previous section, see below under "Vocabulary characteristics".

3.3   Vocabulary characteristics

Type of display (Optional)

Description of overall structure (Optional)

Type of terms (Optional)

Types of relationships (Optional)

Total number of terms* (Optional)

Total number of classes* (Optional)

Number of preferred terms* (Optional)

Number of non-preferred terms* (Optional)

Depth of hierarchy (Optional)

Notes fields (Optional)

Information given (Optional)

*these could be updated automatically as vocabulary changes

In comparison with previous section, the two groups of elements "Scope and usage" and "Vocabulary characteristics" contain most of the elements, apart from the following which were excluded since no rationale was recognized for them in the JISC context: Source of new terminology (only in NKOS 1998), Multilingual (used only by Taxonomy Warehouse), Entity value (listed but not defined yet in NKOS 2001), Top terms (used only by Taxonomy Warehouse and often left empty), Notation scheme and Notation description (also used only by Taxonomy Warehouse).

Based on requirements and in consultation with experts, the following were also recognized as important metadata and were added to the list under the Scope and usage group:

Description of collections where used

Usage case study

Use in application profiles

Rating. Perhaps an automatically generated rating based on publisher, conformance to standards, spread of usage etc.

URL to vocabulary users' discussion board

Change notification details

Overlap with related vocabularies

Mappings to other vocabularies: which vocabularies, intellectual or automated

URL to tutorial for applying vocabulary

3.4   Terms and conditions

Availability: free for all, free for registered users, costs

Import/download instructions (Optional)

Purchase/subscription price

Licensing options (Optional)

3.5   Provider

Vocabulary provider name

Vocabulary provider URL

Vocabulary provider contact details

Vendor provider and contact details were reduced here to these three elements as no rationale was seen for all the types of contact given mostly by NKOS 1998.

Submission metadata were left out of this section because they are related to Option 3 which needs more exploration when it comes to metadata.

Administration record is provided only by ISO 11179 and refers to the metadata about the created metadata. No rationale for it has been recognized in our context so far.

3.6   Defining data elements

As recommended in NKOS 2001, and following Dublin Core, each element could be defined using a set of ten attributes from the ISO11179 standard for the description of data elements. These include:

- Name - The label assigned to the data element

- Identifier - The unique identifier assigned to the data element

- Version - The version of the data element

- Registration Authority - The entity authorized to register the data element

- Language - The language in which the data element is specified

- Definition - A statement that clearly represents the concept and essential nature of the data element

- Obligation - Indicates if the data element is required to always or sometimes be present (contain a value)

- Datatype - Indicates the type of data that can be represented in the value of the data element

- Maximum Occurrence - Indicates any limit to the repeatability of the data element

- Comment - A remark concerning the application of the data element.

Five of the above ten attributes are common to all the elements. These are:

- Version

- Registration Authority

- Language

- Datatype

- Maximum Occurrence.

Further, each data element should be defined with a formal definition.

References

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Vocman. (2008). Becta Vocabulary Bank. http://bank.vocman.com/

Appendix. Metadata with examples

1) CENDI

not separate metadata but descriptions that seem to include the following:

name
URL
update
edition
number/type of terms
type of access
download format if available
publisher/editor
proposals for new terms email if available
type of product
formats
acronym
online availability

Example:
NAL Agricultural Thesaurus http://agclass.nal.usda.gov/agt/agt.shtml

The NAL Agricultural Thesaurus (NALT) is annually updated and the 2007 edition contains over 65,800 terms organized into 17 subject categories. NALT is searchable online and is available in several formats (PDF, ASCII text, XML, SKOS) for download from the web site. NALT has standard hierarchical, equivalence and associative relationships and provides scope notes and over 2,400 definitions of terms for clarity. Proposals for new terminology can be sent to thes@nal.usda.gov. Published by the National Agricultural Library, United States Department of Agriculture.

2) Ecoterm (Environmental Terminology and KOS)

Name (includes acronym)   17
Environmental Topics
Non-Environmental Topics
Technical Contact (Name, adress, e-mail)
Content Contact (Name, address, e-mail)

These are based on the NKOS and XMDR Content elements (Hodge et al. 2007)

2) Ecoterm (Environmental Terminology and KOS)

3) Food and Agriculture Organization (FAO) of UN

FAO Knowledge Organization Systems

Element name	Explanation
	name of the KOS
Domain	subject domain
Owner/ Creator	
Description	several sentences describing what the KOS covers
Language	list of languages covered
Type	type of KOS (e.g., taxonomy, thesaurus)
URL	
Model	URL to OWL represenation of FAO-produced KOS
Contact Email	

FAO Knowledge Organization Systems

Vessel types and size	
Domain	Fisheries and Aquaculture
Owner/ Creator	Food and Agriculture Organization of the …
Description	This ontology organizes the information …
Type	Ontology
URL	http://www.fao.org/a....
Contact Email	FAO-AGRIS-....

4) Hodge et al. 2007 (10th OFMR)

Name (with acronyms)
Creator
Description
Subject Controlled
Keywords
Resource Identifier
Language
Resource Type
Rights
Publisher
Format
Contact Email

5) NKOS Registry 1998

Product Information   *element required
    Product Name/Title *
    Variant Product Name/Title
    Type of Product *
    Product Description *
    Auxiliary Lists
    Author/Editor
    Current Version/Edition *
    Date of Current Version *
    Product Update Frequency *
    Available Format(s) and Size *
    Online Availability
    Notes
    URL for Examples
Scope and Usage
    Major Subject Coverage *
    Minor Subject Coverage
    Used by (user community and applications)
NKOS Characteristics
    Language(s) *
    Type of Terms (e.g. concept terms, geographic names, corporate names, etc.) *
    Description of Overall Structure *
    Source of New Terminology *
    Number of Preferred Terms or Nodes *
    Number of Non-preferred Terms
    Types of Relationships *
    Arrangement of Displays (e.g., alphabetical, hierarchical, graphical)
    Depth of Hierarchy (maximum number of levels)
Terms and Conditions
    Purchase Price by Format (or cost-free statement) *
    Subscription Price by Format
    Licensing Availability
    Restrictions (or no-restrictions statement) *
Vendor
    Vendor Name *
    Vendor Street/Post Office Box *
    Vendor City *
    Vendor State/Province *
    Vendor Country *
    Vendor Postal Code/ZIP Code *
    Vendor Voice Phone *
    Vendor TDD/TTY Phone
    Vendor Fax
    Vendor Email
    Vendor Logo URL
    Vendor Web Site URL
    Vendor Hours of Service and Timezone *
    Vendor Service Description *
Contact
    Contact Name
    Contact Voice Phone
    Contact Fax
    Contact Email
    Contact Web Site URL
    More Contact Information
Comments to Registry Editor   20

5) NKOS Registry 2001

KOS Title (R)
Alternative Title (O)
Creator (O)
KOS Subject (R)
Description (O)
Publisher (O)
Date (R)
KOS Type (R)
Format (R)
Identifier (O)
Language (R)
KOS Relation (R)
Rights (O)
Entity Type (R)
Entity Value (O)
Relationships (R)
Information Given (O)
Arrangement (R)
Application (O)
Minor Subject (O)

where R stands for Required, and O for Optional

Following Dublin Core, each element is defined
using a set of ten attributes from the ISO/IEC
11179 (ISO 11179 2007) standard for the
description of data elements:

Name
Identifier
Version
Registration Authority
Language
Definition
Obligation
Datatype
Maximum Occurrence
Comment

6) National Science Digital Library Registry

NSDL registry	
Element name	**Explanation**
Owner	
Name	
URL	
Note	description of content
Community	who it is aimed at
Status	e.g., published
Language	
URI Base Domain	
URI Token	
URI	
Users Name, Administrator, Maintainer, Registrar	user's name and whether she is an administrator, maintainer, or registrar

NSDL registry example

Owner	GEM Exchange		
Name	21st Century Skills		
URL			
Note	Partnership of 21st Century Skills vocabulary of skills		
Community	Education		
Status	Published		
Language	English		
URI			
Base Domain	http://purl.org/ASN/scheme		
Token	P21		
URI	http://purl.org/ASN/scheme/P21		
Users			
Name	Administrator	Maintainer	Registrar
sas1	Tick	Tick	Tick

7) ISO 11179 (Information Technology – Metadata registries (MDR))

From ISO 11179-2: Classification

Attribute	Occurrences
Designation - name	One per Terminological Entry Language Section
Designation - preferred designation	Zero or one per Terminological Entry Language Section
Designation - language identifier	One per Language Section in each Terminological Entry
Definition - definition text	One per Terminological Entry Language Section
Definition - preferred definition	Zero or one per Terminological Entry Language Section
Definition - source reference	Zero or one per Terminological Entry Language Section
Definition - language identifier	One per Language Section in each Terminological Entry
Context - administration record	One per context
Context - description	One per context
Context - description language identifier	Zero or one per context
Classification Scheme - type name	One per classification scheme
Classification Scheme Item - value	One per classification scheme item
Classification Scheme Item - type name	Zero or one per classification scheme item
Classification Scheme Item Relationship - type description	One per classification scheme item relationship type description
Administration Record - item identifier	One per classification scheme
Administration Record - registration status	One per classification scheme
Administration Record - administrative status	One per classification scheme
Administration Record - creation date	One per classification
Administration Record - last change date	Zero or one per classification
Administration Record - effective date	Zero or one per classification
Administration Record - until date	Zero or one per classification
Administration Record - change description	Zero or one per classification
Administration Record - administrative note	Zero or one per classification
Administration Record - explanatory comment	Zero or one per classification
Administration Record - unresolved issue	Zero or one per classification
Administration Record - origin	Zero or one per classification
Reference Document - identifier	One per reference document
Reference Document - type description	Zero or one per reference document
Reference Document - language identifier	Zero or more per reference document
Reference Document - title	Zero or one per reference document
Reference Document - organization name	One or more per reference document
Reference Document - organization mail address	Zero or one per reference document
Submission - organization name	One per classification scheme
Submission - organization mail address	Zero or one per classification scheme
Submission - contact	One per classification scheme
Stewardship - organization name	One per classification scheme
Stewardship - organization mail address	Zero or one per classification scheme
Stewardship - contact	One per classification scheme
Registration Authority - organization name	One per classification scheme
Registration Authority - organization mail address	Zero or one per classification scheme
Registration Authority - registration authority identifier	One per classification scheme
Registration Authority - documentation language identifier	One or more per classification scheme
Registrar - identifier	One or more per classification scheme
Registrar - contact	One or more per classification scheme

8) OCLC Terminology Services

OCLC Terminology Services

Element name	Explanation
dc.contributor	An entity responsible for making contributions to a controlled vocabulary
dc.description	A description of a controlled vocabulary
dc.identifier	An unambiguous reference to a vocabulary metadata record
dc.language	A language of the controlled vocabulary
dc.rights	Information about rights held in and over a controlled vocabulary
dc.subject	A subject focus of a controlled vocabulary
dc.title	A name given to a controlled vocabulary
oclcts.marcTags	MARC tags in a controlled vocabulary metadata record
oclcts.vocabularyId	A code assigned to a controlled vocabulary
cql.resultSetId	An index defined by the CQL context, required by the SRU protocol
cql.serverChoice	The default index, defined by the CQL context

At the project website, KOS are described using the following elements:

Name	same as dc.title??
Description	same as dc.description
Date	date when added to the registry
Identifier	same as oclcts.vocabularyId
Links	include About, SRU Interface, Examples, MARC Statistics

OCLC Terminology Services Example

Name	Form and genre headings for fiction and drama
Description	Form and genre terms from the Guidelines On Subject Access To Individual Works Of Fiction, Drama, Etc., 2nd ed.
Date	2008-03
Identifier	gsafd
Links	About, SRU Interface, Examples, MARC Statistics

MARC example:
http://tspilot.oclc.org/meta/?query=oclcts.vocabularyId
+exact+%22gsafd%22&version=1.1&operation=searc
hRetrieve&recordSchema=info%3Asrw%2Fschema%
2F1%2Fmarcxml-
v1.1&maximumRecords=10&startRecord=1&resultSe
tTTL=300&recordPacking=xml&recordXPath=&sortK
eys=

9) SPECTRUM Terminology Bank

<div align="center">

SPECTRUM

</div>

Element name	Explanation
Title:	
Resource Type:	e.g., thesaurus
Author(s):	
Publisher(s):	
Creation Date:	
Description:	
URL:	
SPECTRUM Unit of information:	

<div align="center">

SPECTRUM example

</div>

Title:	Pitt Rivers Museum - University of Oxford Group Thesaurus
Resource Type:	Simple Wordlist
Author(s):	Pitt Rivers Museum documentation staff
Publisher(s):	Pitt Rivers Museum
Creation Date:	2001
Description:	Keyword list for Group.
URL:	http://www.mda.org.uk/spectrum-terminology/pitt-rivers/group
SPECTRUM Unit of information:	People name

10) Taxonomy Warehouse

Taxonomy Warehouse

Element name	Explanation
Name	KOS name
Publisher	publisher name
Type	type of KOS (e.g., taxonomy, thesaurus)
Categories	subjects covered
Description	several sentences describing what the KOS covers
Total Terms	number of total terms
Top Terms	number of top hierarchical terms
Preferred Terms	number of preferred terms
Non-Preferred Terms	number of non-preferred terms
Relationships	number of terms with relationships to other terms
Levels	number of hierarhical levels
Notation Scheme	yes/no for whether there is a notation system
Notation Description	e.g. for Eurovoc: numeric, two-digit numbers identify 21 fields (subject areas), four-digit numbers indicate microthesaurus.
Relationship Types	types of relationships between terms (e.g., associative, hierarchical)
Notes Fields	types of notes field (e.g., Other, Scope)
Multilingual	yes/no for whether it is multilingual
Languages	list of languages covered
Additional Information	
Revision Cycle	how frequent the KOS is updated
Last Updated	last update date
Formats	formats in which it can be available
Informational URL	information at publisher's web site
Online/Download URL	

When ordering,further publisher info:
Address
Phone
Fax
URL

Taxonomy Warehouse Example

Element name	Value
Name	KOS name
Publisher	publisher name
Type	type of KOS (e.g., taxonomy, thesaurus)
Categories	subjects covered
Description	several sentences describing what the KOS covers
Total Terms	number of total terms
Top Terms	number of top hierarchical terms
Preferred Terms	number of preferred terms
Non-Preferred Terms	number of non-preferred terms
Relationships	number of terms with relationships to other terms
Levels	number of hierarhical levels
Notation Scheme	yes/no for whether there is a notation system
Notation Description	e.g. for Eurovoc: numeric, two-digit numbers identify 21 fields (subject areas), four-digit numbers indicate microthesaurus.
Relationship Types	types of relationships between terms (e.g., associative, hierarchical)
Notes Fields	types of notes field (e.g., Other, Scope)
Multilingual	yes/no for whether it is multilingual
Languages	list of languages covered
Additional Information	
Top Terms	
Preferred Terms	28000
Non-Preferred Terms	10900
Relationships	
Levels	
Notation Scheme	No
Notation Description	
Relationship Types	Associative, Equivalency, Hierarchical
Notes Fields	Scope
Multilingual	Yes
Languages	Arabic, Chinese, Czech, English, French, Japanese […]
Additional Information	Available in SKOS, MySql, Postgres, MsAccess, TagText and ISO2709 formats
Revision Cycle	updated quarterly
Last Updated	200604
Formats	Public Website
Informational URL	http://www.fao.org/aims/ag_intro.htm
Online/Download URL	http://www.fao.org/aims/ag_download.htm
Publisher information	
Address	Viale delle Terme di Caracalla, 00100, Rome, Italy
Phone	+39 06 5705 1
Fax	+39 06 5705 3152
URL	http://www.fao.org/

11) Vocman (Becta Vocabulary Bank)

Becta Vocabulary Bank

Element name	Explanation
Authority	Ogranisation in charge of creating and maintaing the KOS
Version	
Description	

Becta Vocabulary Bank Example

ACLearn
Authority:	SkillsWeb
Version:	2
Description:	The Adult Community Learning vocabulary