```
Title:              Agenda of Usage Board meeting
Date of meeting:    12-13 May 2002
Venue:              UKOLN, Bath
Date Last Modified: Fri May 17 09:44:54 EDT 2002
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This agenda is maintained and continually updated by the
Usage Board Chair, Tom Baker in
the weeks preceding a Usage Board meeting. Revisions
are occasionally posted to the Usage Board mailing list,
which is publicly accessible on a read-only basis at
http://www.jiscmail.ac.uk/lists/dc-usage.html, and as the file
http://www.gmd.de/People/Thomas.Baker/agenda.html.
On completion of the meeting, the file will be frozen
and archived as
http://dublincore.org/usage/meetings/2002/05/agenda.html
and linked to
http://dublincore.org/usage/meetings/.
The meeting packet will be posted at
http://www.gmd.de/People/Thomas.Baker/meeting-packet.pdf.

```
Sunday, 12 March
09:00-12:00 3.0 hrs
                         1. Libraries new-term proposals (90")
                         2. Education new-term proposal (30")
                         4. Type new-term proposal (30")
13:00-15:30 2.5 hrs
                         6. Documentation and Web site (90")
16:00-18:00 2.0 hrs
                         3. Citation new-term proposal (45"? Andy?)
                         5. Registration of encoding schemes (45"? Traugott?)
                        10. RFC 3066 encoding scheme (15"? Rebecca?)

Monday, 13 March
09:00-12:00 3.0 hrs
                         8. Application profiles (3 hrs)
13:00-15:30 2.5 hrs
                         7. Structured values (2'? Andy?)
16:00-18:00 2.0 hrs
                        11. Other business
```

1. New-term proposals from DCMI Libraries Working Group (Rebecca Guenther)

    -- Holding Location (new element)
       http://www.loc.gov/marc/dc/holding-location_prop.html
    -- Accepted (refinement for Date)
       http://www.loc.gov/marc/dc/accepted-date_prop.html
    -- Captured (refinement for Date)
       http://www.loc.gov/marc/dc/captured-date_prop.html
    -- Copyright (refinement for Date)
       http://www.loc.gov/marc/dc/copyright-date_prop.html
    -- Submitted (refinement for Date)
       http://www.loc.gov/marc/dc/submitted-date_prop.html
    -- Version (refinement for Description)
       http://www.loc.gov/marc/dc/description-version_prop.html
    -- Discussion summarized:
       http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-usage&O=A&P=10409

2. New-term proposal from DCMI Education Working Group (Diane Hillmann)

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               -- audienceLevel (refinement for Audience)
                  http://dublincore.org/groups/education/Audience-Level-Proposal.shtml

      3. New-term proposal from DCMI Citation Working Group (Andy Powell)

            -- Citation (refinement for Identifier)
               http://epub.mimas.ac.uk/DC/citproposal.html

      4. New-term proposal from DCMI Type Working Group (Rebecca Guenther)

            -- Physical Object (for the DCMI Type Vocabulary)
               http://epub.mimas.ac.uk/DC/type-physobj.html
            -- Discussion summarized:
               http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-usage&O=A&P=10679

      5. Registration of encoding schemes: process and prototype (Traugott Koch)

            -- http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0203&L=dc-usage&O=A&P=855
            -- http://wip.dublincore.org:8080/schemes/index.html - prototype (try it!)
            -- http://www.lub.lu.se/~traugott/drafts/vocab-guide3.html

      6. Documentation and Web site (Tom Baker)

            -- http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-usage&O=A&P=7212
            -- http://www.gmd.de/People/Thomas.Baker/index-documents.txt
            -- http://www.gmd.de/People/Thomas.Baker/index-decisions.txt
            -- http://www.gmd.de/People/Thomas.Baker/index-documents.txt
            -- http://www.gmd.de/People/Thomas.Baker/index-elements-qualifiers.txt
            -- http://www.gmd.de/People/Thomas.Baker/index-meetings.txt
            -- http://www.gmd.de/People/Thomas.Baker/index-terms.txt
            -- http://www.gmd.de/People/Thomas.Baker/index-usage.txt
            -- http://dublincore.org/groups/registry/DCMI-reg-roadmapv4.html

          Documents:
            -- http://dublincore.org/usage/documents/mission
            -- http://dublincore.org/usage/documents/process

      7. Structured Values, or "DCSVs" (Andy Powell)

            -- General issues:
               http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-usage&O=A&P=2547
            -- Journal Article Bibliographic Citation DCSV (Citation Working Group)
               http://epub.mimas.ac.uk/DC/citdcsv.html
            -- DCMI Agent Detail, structured values for CCP elements (Rebecca Guenther)
               http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-agents&F=&S=&P=169

          Background reading:
            -- http://dublincore.org/documents/2000/07/28/dcmi-dcsv/
            -- http://dublincore.org/documents/labelled-values-syntax/
            -- http://dublincore.org/documents/dcmi-point/
            -- http://dublincore.org/documents/dcmi-period/
            -- http://dublincore.org/documents/dcmi-box/

      8. Application profiles

            -- Usage Board role (Tom Baker)
               http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-usage&O=A&P=7333
               Strawman:
               http://www.gmd.de/People/Thomas.Baker/ap-review.html
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        -- DC-Gov profile (Stuart Sutton)
            http://www.gmd.de/People/Thomas.Baker/Dc-gov.proposal.pdf
            http://dublincore.org/usage/decisions/2001/government-02.shtml
            http://dublincore.org/usage/meetings/2001/10/DC-Gov_proposal_v0.2_2001-10-121.html
        -- Libraries profile (Rebecca Guenther)
            http://dublincore.org/documents/library-application-profile/

9. Use of role values as element refinements for
   Creator, Contributor, Publisher (Rebecca Guenther)

    -- http://www.loc.gov/marc/dc/Agent-roles.html
    -- To be POSTPONED to next meeting... (May 03)

10. RFC 3066 encoding scheme (Rebecca Guenther)

    -- http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0107&L=dc-usage&O=A&P=1863
    -- http://dublincore.org/usage/meetings/2001/10/rfc3066_proposal.html

11. Other business (Tom Baker)
   See http://www.gmd.de/People/Thomas.Baker/issues.html

DC-Libraries Working Group

Proposal for Holding Location element

13 April 2002

This proposal is for review by Dublin Core community. It proposes a new element Holding Location that is included in the proposed DC-Library Application Profile. This review period is 15 April-11 May 2002.

Proposal: Holding Location

Name	holdingLocation
Label	Holding Location
Definition	Identifies ownership of and/or the organization responsible for access to the resource.
Comment	Use for a physical location that allows the user to retrieve the item when a URI is not appropriate (e.g. for physical items not available electronically). This also facilitates access if the URI doesn't retrieve anything or only a poor substitute. Value may be free text or use a value from a controlled list, such as the *MARC Code List for Organizations*. DC-Libraries Working Group will also evaluate the need for other encoding schemes, possibly a URI to an entry in an authority file.
Examples	Ann Arbor (MI,USA), University of Michigan Museum of Art; DLC (using encoding scheme *MARC Code List for Organizations*)
Type of term	Element
Term qualified	

Why needed	This element is needed for description of non-electronic resources that are not Web accessible and do not have URLS. Many of them also lack universal identifiers of any kind, even ISBNs. For physical resources, a user viewing the metadata must know at a minimum which institution to approach to gain access.
Proposed status	Domain-Specific
Related DCMI terms	Publisher; Identifier
Related non-DCMI terms	MARC Field 852 (Location); VRA element Location.Current Repository
Impact on applications	This element has not been used in DCMI applications and should have no impact.
About the proposers	DC-Libraries Application Profile drafting committee list: http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0110&L=dc-libraries-ap&F=&S=&P=60

Messages in support of inclusion: http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0108&L=dc-libraries&F=&S=&P=518 (Aug. 2001)

http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0108&L=dc-libraries&P=R448 (Aug. 2001)

http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-libraries&F=&S=&P=2176 (Apr. 2002) |

Related terms:

DC:Publisher. Other communities have needed to supply the holding location for physical objects described using Dublin Core. CIMI filled this need for museums by adopting the Publisher element. For museum materials, which are largely unpublished, this did not create an internal conflict. However, for libraries, where the majority of resources are published, it is crucial to distinguish between the actual publisher and the holding location. (A variation on the CIMI option is to use the Contributor or Publisher elements with an appropriate Role qualifier once the technique for expressing Role is

finalized.) The drawback would be the inability, in any unqualified DC systems to distinguish, for example, works by Oxford University from those held at Oxford University, with predictably bad consequences for search precision. The relationship of a holding institution to an information resource can be considered to be quite different conceptually from the relationships between other "agents" and the resource.

DC:Identifier. The definition of DC:Identifier is "an unambiguous reference to the resource within a given context." DCMES considers recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. In the case of Holding Location, applied to non-electronic resources, many lack identifiers from a formal identification system. Thus, any qualifier adopted for DC:Identifier would not refine but change the approved definition.

MARC Field 852. The proposed element is roughly equivalent to field 852 in the MARC 21 Bibliographic and Holdings Formats, which is defined as information that identifies the organization holding the item or from which it is available. It is not clear what it means to reference a MARC element in a DC profile (further discussion needed), so this approach has not been pursued.

VRA (Visual Resources Association) Core Version 3.0. The proposed element is equivalent to Location.Current Repository. Since that standard is limited to description of visual resources and the definitions convey that, it would not be appropriate to simply reference the element.

Application of this element:

Holding Location could be used with a value from an authority which would be registered as a DCMI encoding scheme or it can contain the name of the organization responsible for access. DC-Libraries WG intends to register as an encoding scheme the *MARC Code List for Organizations*; also to be considered is the need for other encoding schemes, possibly a URI to an entry in an authority file.

Issues with this element:

The element could be considered administrative metadata in nature (i.e. metadata used in managing and administering information resources) rather than resource discovery metadata. However, one could argue that unless you can find something, you haven't discovered much. Where a physical resource can be found is certainly as critical to successful resource discovery as Rights, for example. Rights can tell you whether you may or may not use the item. If you are permitted to use it, you will need to know where it is. See further discussion as indicated above under "about the proposers".

DC-Libraries Working Group

Proposal: Accepted qualifier for Date element

13 April 2002

This proposal is for review by Dublin Core community. It proposes a new element refinement Date.Accepted that is included in the proposed DC-Library Application Profile. This review period is 15 April-11 May 2002.

Proposal: Accepted refinement (element Date)

Name	accepted
Label	Accepted
Definition	Date of acceptance of the resource (e.g.of thesis by university department, of article by journal, etc.).
Comment	This is recommended for theses and dissertations.
Examples	1999
Type of term	Element refinement
Term qualified	Date
Why needed	It may be necessary to distinguish the date accepted from the date created or issued for theses and dissertations or reviewed articles. There are numerous projects in libraries that make available theses and dissertations where this date is important to distinguish.
Proposed status	Domain-specific
Related DCMI terms	
Related non-DCMI terms	DC.Date.Accepted (Dissertationen Online project)

Impact on applications	Applications have used this element refinement locally because of the need for electronic theses and dissertation projects. (see the German project Dissertationen Online: Metadaten im Umfeld von Dissertationen.)
About the proposers	DC-Libraries Working Group: Library application Profile: discussion on drafting committee list: http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0203&L=dc-libraries-ap&F=&S=&P=1951

Library of Congress
Library of Congress Help Desk (mm/dd/yy)

DC-Libraries Working Group

Proposal: Captured qualifier for Date element

13 April 2002

This proposal is for review by Dublin Core community. It proposes a new element refinement Captured for the DC:Date element that is included in the proposed DC-Library Application Profile. This review period is 15 April-11 May 2002.

Proposal: Captured refinement (element Date)

Name	captured
Label	Captured
Definition	Date that the resource was captured.
Comment	Includes the date the resource was digitized or a subsequent snapshot was taken (particularly for dynamic resources) if different from Date.Created . Best practice is to use as a machine-processible date (ISO 8601 or W3CDTF).
Examples	1999
Type of term	Element refinement
Term qualified	Date
Why needed	It may be necessary to distinguish the date captured from date created, particularly in cases where the intellectual content was created on a different date than that in which it was digitized or a subsequent snapshot was taken (particularly for dynamic resources).
Proposed status	Domain-specific

Related DCMI terms	Date.Creation: many library applications consider date created that of the intellectual content (this interpretation is specified in the DC-Lib application profile). It is important to also include the date of capture and to distinguish it as such.
Related non-DCMI terms	
Impact on applications	Some applications may have used Date.Created for this because of the lack of a qualifier. This element refinement has been requested on several occasions. There is a known application (Colorado Digitization Project) that has used Date.Digitized locally for this concept.
About the proposers	DC-Libraries Working Group: Library application Profile: discussion on drafting committee list: http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0203&L=dc-libraries-ap&F=&S=&P=1951

Library of Congress
Library of Congress Help Desk (mm/dd/yy)

DC-Libraries Working Group

Proposal: Copyright qualifier for Date element

13 April 2002

This proposal is for review by Dublin Core community. It proposes a new element refinement Copyright for the element DC:Date that is included in the proposed DC-Library Application Profile. This review period is 15 April-11 May 2002.

Proposal: Copyright refinement (element Date)

Name	copyright
Label	Copyright
Definition	Date of a statement of copyright.
Comment	Best practice is to use if 1) the value is different from Date.Issued or Date.Created, or 2) the copyright date is known but no value is supplied for Date.Issued or Date.Created. If the copyright date is the same as date issued, use Date.Issued.
Examples	1999
Type of term	Element refinement
Term qualified	Date
Why needed	Copyright date is important to distinguish from Date created and Date issued because terms and conditions are dependent on the copyright date. (Deposit dates are also considered under copyright date.)
Proposed status	Domain-Specific
Related DCMI terms	Date.Issued: when the copyright date is different from date issued it is important to distinguish between them; when the same, it is not necessary to indicate copyright date.
Related non-DCMI terms	
Impact on applications	Unlikely to have previously been used, so no impact.

About the proposers	DC-Libraries Working Group: Library application Profile: http://www.dublincore.org/documents/2001/10/12/library-application-profile/#Date

Library of Congress
Library of Congress Help Desk (mm/dd/yy)

DC-Libraries Working Group

Proposal: Submitted qualifier for Date element

13 April 2002

This proposal is for review by Dublin Core community. It proposes a new element refinement Submitted for the element DC:Date that is included in the proposed DC-Library Application Profile. This review period is 15 April-11 May 2002.

Proposal: Submitted refinement (element Date)

Name	submitted
Label	Submitted
Definition	Date of submission of the resource (e.g. thesis, articles, etc.).
Comment	This is recommended for theses and dissertations.
Examples	1999
Type of term	Element refinement
Term qualified	Date
Why needed	It may be necessary to distinguish the date submitted from the date created or issued for theses and dissertations or reviewed articles. Often these resources are not made available at the same time of submission. There are numerous projects in libraries that make available theses and dissertations where this date is important to distinguish.
Proposed status	Domain-specific
Related DCMI terms	
Related non-DCMI terms	DC.Date.Submitted (Dissertationen Online project)

Impact on applications	Applications have used this element refinement locally because of the need for electronic theses and dissertation projects. (see the German project Dissertationen Online: Metadaten im Umfeld von Dissertationen).
About the proposers	DC-Libraries Working Group: Library application Profile: discussion on drafting committee list: http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0203&L=dc-libraries-ap&F=&S=&P=1951

Library of Congress

Library of Congress Help Desk (mm/dd/yy)

DC-Libraries Working Group

Proposal: Version qualifier for Description element

13 April 2002

This proposal is for review by Dublin Core community. It proposes a new element refinement Version for the element DC:Description that is included in the proposed DC-Library Application Profile. This review period is 15 April-11 May 2002.

Proposal: Version (element Description)

Name	version
Label	Version
Definition	Information designating the version or edition of a work.
Comment	Includes statements designating an edition or version. This may describe the resource in terms of a number or statement that assists in distinguishing it from other expressions of similar content.
Examples	Second edition; Revised version; Version 2.0
Type of term	Element refinement
Term qualified	Description
Why needed	Being able to specify the version or edition of a given work is often critical to successful resource discovery and identification to determine whether a resource is the same as another one. This is particularly important for resources that change frequently.
Proposed status	Cross domain; this may be applicable for other applications

Related DCMI terms	Relation, except that relation is a pointer to some other resource and is not a descriptor of its version. There is also not necessarily any related item to link to.
Related non-DCMI terms	MARC Field 250 (Edition)
Impact on applications	Other applications may have defined a local element or qualifier for this because of its general need; this has not been determined. (Earlier suggestions have been to use with DC:Title, but it is not clear if this has ever been used.)
About the proposers	DC-Libraries Application Profile drafting committee discussion Sept. 2001: http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A1=ind0109&L=dc-libraries-ap See Position paper by Robin Wendler

Best practice: This element refinement would not be repeated.

Issues: This could also be defined as a separate element rather than element refinement, but because of its importance in identification of the resource the benefits of retaining the information when DC-Lib descriptions are "dumbed-down" to simple DC argue for refining an element within the basic 15. Since it is a essentially a descriptor, Description is an appropriate element to refine.

Library of Congress
Library of Congress Help Desk (mm/dd/yy)

Date: Mon, 29 Apr 2002 15:57:31 -0400
Reply-To: A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender: A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: [Agenda Point 1] New-term proposals from DC-Libraries
Content-Type: TEXT/PLAIN; charset=US-ASCII

1. New-term proposals from DCMI Libraries Working Group (Rebecca Guenther)

  -- Holding Location (new element)
     http://www.loc.gov/marc/dc/holding-location_prop.html
  -- Accepted (refinement for Date)
     http://www.loc.gov/marc/dc/accepted-date_prop.html
  -- Captured (refinement for Date)
     http://www.loc.gov/marc/dc/captured-date_prop.html
  -- Copyright (refinement for Date)
     http://www.loc.gov/marc/dc/copyright-date_prop.html
  -- Submitted (refinement for Date)
     http://www.loc.gov/marc/dc/submitted-date_prop.html
  -- Version (refinement for Description)
     http://www.loc.gov/marc/dc/description-version_prop.html

These are all proposals that will (presumably) be in the meeting
packet. There has not been a lot of discussion about them in general.

1. Holding Location
A comment was made that this element should be separated into various
pieces:
Ownership
Call number
Identifier
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-general&F=&S=&P=2887

My answer to that comment is at:
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-general&F=&S=&P=3899

Actually it brings up questions about further element refinements to this
domain-specific element, or maybe even structured values (I'm now feeling
unclear as to what category these would belong in.)

However, I think including any of the above information under this element
would be appropriate; we could elaborate on that in a revision of the
proposal.

2. Accepted/Date Submitted (for Date)
These can be considered together, since they are related. There has not

been much discussion. Some have said that they are too specific to a
certain type of material (theses and dissertations). Most comments have
been that they're useful and are in fact being used in electronic
dissertation projects.

3. Captured (for Date)
Unfortunately this could bring up our good old one-to-one issues, since
the proposal suggests using it for "date digitized". However, I could
leave out such a reference and leave it to the implementor how it should
be used. I do believe it depends on how the resource is being described.

4. Copyright (for Date)
There has been discussion about whether this is Rights information. In
particular there was discussion on the DC-Libraries list. See:
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-libraries&F=&S=&P=3192
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-libraries&F=&S=&P=3301
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-libraries&F=&S=&P=3639
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-libraries&F=&S=&P=3412

Also DC-General:
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-general&F=&S=&P=1955
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-general&F=&S=&P=3459
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-general&F=&S=&P=4333

In the sense it's being proposed, however, it is intended as a date for
discovery even though it does have rights implications. See in particular
Eric Childress' message (3rd in list above under DC-Libraries).

5. Version (for Description)

Comments have been that this is needed. Interestingly, I found that the
incorrect RDF schema that was up had this as "Description.Release". As I
recall this was previously discussed (that it should be under
Description). One comment was that it should be under Identifier (I
totally disagreed with that since it didn't fit the definition at all).
This alternative name could be considered, although I think it is
narrower than Version.

I would like to think that these wouldn't need more than 15 minutes each
(some less), so that 1 hour 15 min. to 1 hour 30 min. would be sufficient.
I would hope that we can approve these with a minimum of discussion, since
they are all being proposed as domain-specific terms. I can't think of any
really large issues they bring up (except maybe structured values, but
that is elsewhere on the agenda.

Rebecca

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ABOUT THE INITIATIVE   DOCUMENTS   GROUPS   RESOURCES

DCMI NEWS   TOOLS AND SOFTWARE   MEETINGS AND PRESENTATIONS   PROJECTS

Dublin Core Metadata Initiative

Home > Groups > Education >

DCMI Education Working Group:
Proposal for audienceLevel Qualifier for the Audience Element

Latest Version:	http://www.ischool.washington.edu/sasutton/dc-ed/Audience-Level-Proposal.html [1 January 2002]
This Version:	http://www.ischool.washington.edu/sasutton/dc-ed/Audience-Level-Proposal.html [1 January 2002]
Previous Version:	None
Working Group:	Education <http://www.dublincore.org/groups/education/> [UBAP 5.2.7]
Editor:	Stuart A. Sutton <sasutton@u.washington.edu>
	February 1, 2002-March 1, 2002
Public Comment Period:	Available for comments until 01 March 2002. If you are a member of the DC-Education Mailing List, please send comments directly to the mailing list. If you are not a member of the mailing list and do not wish to join, please send comments directly to the working group chairs.

Dublin Core Usage Board Draft Administrative Processes Document Index:

5.2.1   5.2.3   5.2.5   5.2.7   5.2.9   5.2.11   5.4.2.2   5.5

5.2.2   5.2.4   5.2.6   5.2.8   5.2.10   5.2.12   5.4.3.3

Summary History of the Pre-proposal Discussion:

The "strawman" proposal that shaped the February 2000 discussions of the Working Group of the then-proposed "audience" element at Kattemingga Lodge (Melbourne) included a reference to education level in its student/trainee trait descriptor classes [http://www.ischool.washington.edu/sasutton/dc-ed/Audience_SS_1.html]. Immediately after the Working Group chairs posted the minutes of the Kattemingga face-to-face meeting, the issue of being able to specifically address the level of audience surfaced as an issue on the Working Group listserv [http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0003&L=dc-education&F=&S=&P=2501]. On October 28, 2000, the Working Group chairs framed the discussion in terms of the need for an "audienceLevel" qualifier for the then-proposed

"audience" element [http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0010&L=dc-education&F=&S=&P=266]. Mappings of audience level statements being used in extant resource discovery projects were circulated [e.g., http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0011&L=dc-education&F=&S=&P=58]. Subsequent discussions on the list hammered out both the need for the qualifier and its semantics within the education domain. Working Group consensus was reached in December 2000 [http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0012&L=dc-education&O=A&P=182].

Summary History of the Post-proposal Discussion: [UBAP 5.2.9] [top]

[To be completed by the Usage Board proposal shepherd following discussions on DC-General pursuant to Part 5.6.2 of the Dublin Core Usage Board Draft Administrative Processes document.]

Summary Table: Element Qualifier Proposal

Qualified Element Namespace	http://purl.org/dc/terms/
Qualified Element Name [UBAP 5.2.6] [top]	audience
Element Qualifier Namespace	http://purl.org/dc/terms
Element Qualifier Name [UBAP 5.2.1] [top]	audienceLevel
Element Qualifier Label [UBAP 5.2.2] [top]	Audience Level
Element Qualifier Status	Domain-Specific
Element Qualifier Definition [UBAP 5.2.2] [top]	A general statement describing the education or training sector. Alternatively, a more specific statement of the location of the audience in terms of its progression through an education or training sector.
Element Qualifier Comment	Where available, such statements should be expressed in terms of recognized national, organizational or regional/local value qualifier schemes.
Element Qualifier Encoding Schemes	No DCMI value qualifier schemes are being proposed at this time.

Element Qualifier Examples [UBAP 5.2.3] [top]	1. United States Example:
	    ❍ A fifth grade teacher wants to find lesson plans intended for use with students in grade five. She might search for "audienceLevel='Grade 5'" using the U.S. Department of Education's Level of Education vocabulary (http://www.ed.gov/admin/reference/index.jsp).
	2. Australian Example:
	    ❍ The parent of a preschool child wants to find educational activities intended for use by preschool children. He might search for "audienceLevel='Preschool'" using the vocabulary developed by Education Network Australia and adopted by the Le@rning Federation, an Australia-wide initiative supporting the development and exchange of K-12 online resources.

Discussion:

Justification of Need: [UBAP 5.2.12] [top]

The DC-Education Working Group has formulated all of its proposals by means of a two step process that embodies the concept of community "need" in a fundamental way. The first of those steps is the aggregation of actual metadata statements being made in existing DC-based applications in the education domain that comport with the notion underlying the perceived need. If no (or very few) existing applications are making such statements, there is no demonstrated need (and no need to act). If there are such statements being made in multiple applications, discussions them move to whether being able to search on such statements with *precision* requires an element or an element qualifier.

With the notion of audience level, the inventory of statements was both long and rich. While it was clear that the vocabularies needed to meet local needs (domain localization) are richly varied (and, in many instances, under development), the need to be able to make such statements with precision was nearly ubiquitous across applications (domain globalization). As a result, there is a demonstrated, strong need for the "audienceLevel" qualifier for the "Audience" element and an equally strong need for supporting development (where none exist) of local (national) vocabularies.

Impact on Existing Dublin Core Applications: [UBAP 5.2.10] [top]

The goal of this proposal is to promote interoperability across DCMI-based applications that currently make metadata statements regarding the level of the audience as defined in this proposal. Currently, those applications use various names/machine tokens to identify the underlying concept. Therefore, it is inevitable that the process of standardization will result in some adverse impacts on legacy systems and data. For example, the Gateway to Educational Material's (GEM) metadata element set has had such an element since the GEM element set was created in 1996 which it named "Grade" . Should a recommendation issue as a result of this proposal, GEM will have to choose whether to move toward greater intra-domain interoperability, or maintain the full integrity of its legacy data and systems. It appears that this is an inevitable consequence of standardization and will require applications to carefully balance the obvious tradeoffs.

Overlap with Existing DCMI Terms: [UBAP 5.2.8] [top]

There is no apparent overlap with existing DCMI terms.

Best Practice Recommendations: [UBAP 5.2.4] [top]

The most successful uses of the "audienceLevel" qualifier of the "Audience" element will be those that use well developed, publicly available controlled vocabularies. In many jurisdictions, such vocabularies already exist and are under development in many others.

Interoperability with Other Metadata Schemas: [UBAP 5.2.11] [top]

In part, the notion of audience level can be expressed through the concept of "Context" in the IEEE LTSC LOM "Educational Category." While the promise of an application profile that makes possible the integration of elements from the LOM namespace with those of the DCMI through the use of a publicly accessible, DCMI registered application profile, movement toward such an interoperable solution has been painfully slow. Until it is absolutely clear to the education community that such a solution is viable in real-world applications, DCMI needs to move forward serving the education community.

IEEE LTSC LOM Educational Category

Category	Name	Description	LOM Vocabulary*
5.6	Context	The typical learning environment where use of learning object is intended to take place.	Primary Education, Secondary Education, Higher Education, University First Cycle, University Second Cycle, University Postgrade, Technical School First Cycle, Technical School Second Cycle, Professional Formation, Continuous Formation, Vocational Training

*Other controlled vocabularies can be used

Alternative Mechanisms of Implementation: [UBAP 5.4.3.3] [UBAP 5.5] [top]

There are no apparent alternative mechanisms of implementation within the architecture of DCMI that can fully meet the identified need. As the existing applications making statements regarding level of audience demonstrate, a rich array of jurisdictional vocabularies have emerged (and continue to emerge). Therefore, one might assert that the use of such vocabularies represents a less disruptive means of meeting the need [see Part 5.5 of the Dublin Core Usage Board Draft Administrative Processes document]. However, given the expressed need to search and retrieve with precision on these statements, an element qualifier to the "Audience" element is believed justified.

Difficulty of Application: [UBAP 5.4.2.2] [top]

Some jurisdictions conflate the notion of level of audience defined here as an educational/training sector or a point (or range of points) in a stepped progression through such a sector with degrees of academic achievement. In such systems, the notion of "audienceLevel" reflects both aspects of the term as defined

in this proposal and aspects of the concept of nationally promulgated standards expressible through the "ConformsTo" qualifier of the "Relation" element. In such jurisdictions, catalogers will be faced with a question of whether to provide audienceLevel information using the "audienceLevel" element qualifier to "Audience", the "ConformsTo" qualifier to "Relation", or both.

However, in many other jurisdictions, the two concepts–"audienceLevel" (as defined here) and any set of academic achievements–are expressed separately. For example, in the United States, degrees of academic achievement for students in the fifth grade will vary considerably one state to another. In such jurisdictions, there is no difficulty in determining which of the two qualifiers ("audienceLevel" or "conformsTo") is appropriate since they relate to two distinct concepts.

Two listserv entries in November 2000 <http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0011&L=dc-education&F=&S=&P=288> and in December 2000 <http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0012&L=dc-education&O=A&P=58> reflect the difficulty.

Valid XHTML 1.0!   W3C CSS ✓

Metadata associated with this resource: http://dublincore.org/groups/education/Audience-Level-Proposal.shtml.rdf

A *citation* Element Refinement for *dc:identifier*

Dublin Core Metadata Initiative - Citation Working Group

28 March 2002

This version: <http://epub.mimas.ac.uk/DC/citproposal-20020328.html>
Previous version: This is the first version for review
Latest version: <http://epub.mimas.ac.uk/DC/citproposal.html>

Author: Ann Apps <ann.apps@man.ac.uk>
MIMAS, University of Manchester, UK

Status of this document: *Under Review*

Description: This document contains a proposal by the DCMI Citation Working Group [1] to the Dublin Core Usage Board for a *citation* element refinement for *dc:identifier*. A *dc:identifier* element with a *citation* qualifier would provide a field in which to encode the bibliographic citation information for a journal article, or other bibliographic resource, within the Dublin Core record for that resource.

Summary

Element	**dc:identifier**
Proposed Qualifier	**citation**
Source of Proposal	DCMI Citation Working Group [1]
Justification	See section 4
Overlap with other terms	None
Impact	There will be existing DC applications which have used differing methods for solving this problem, but there is no existing best practice
Interoperability	No expected impact because this is a new, optional element refinement
Examples	See section 3

1. Introduction and Objective

This document describes a proposal to the Dublin Core Usage Board to provide a specific field within the Dublin Core metadata for a bibliographic resource, such as but not limited to a journal article, in which to record the bibliographic citation information for that resource. It is proposed that this field be within a *dc:identifier* element with a *citation* qualifier.

The primary purpose of recording the citation information for a bibliographic resource is to support discovery of that resource, because it would assist with discovery of the resource's location. In addition, capturing the bibliographic citation information for a resource will support description of this type of resource.

It should be noted that the bibliographic information which would be captured in a *dc:identifier/citation* is the complete bibliographic record for the resource itself. This proposal is not concerned with capturing citation linking data for a related resource. Some background information about bibliographic citation information is in section 4.

This proposal does not make any recommendations about the encoding of the components of a bibliographic citation within a *dc:identifier/citation* element. A second proposal by the DCMI Citation Working Group, 'A Journal Article Bibliographic Citation Dublin Core Structured Value' [2], suggests an encoding scheme, but the two proposals are independent. Other possible encodings could be an OpenURL [3] or a plain text string.

2. The Proposal

It is proposed that bibliographic citation information for a journal article, or similar bibliographic resource, should be captured within a *dc:identifier* element with a *citation* refinement.

2.1 Bibliographic Resource Identification

Using *dc:identifier* as the element in which to encode bibliographic citation information for a resource recognises the fact that this citation information effectively *identifies* that resource.

Consideration has been given to the appropriateness of other elements for capturing this information, in particular *dc:description* and *dc:relation*. Reasons for not recommending these elements are given below in section 4.

2.2 A *citation* Qualifier

It could be argued that a *citation* qualifier is not necessary, and that the information could be encoded in *dc:identifier* without this qualifier. This especially could be the case where the citation information is encoded according to a standard scheme which implies that the value is bibliographic citation information. But there are several advantages to using an explicit *citation* qualifier when encoding this type of information in *dc:identifier*:

- This proposal makes no recommendation for a particular encoding scheme for capturing bibliographic citation information. Although the DCMI Citation Working Group intends to make some specific recommendations in this area, any recommended encoding scheme will not be mandatory, and this particular proposal should not depend on any such encoding scheme recommendation.
- It will allow for simple text, human readable citations, instead of, or as well as, machine readable encodings. These textual citations may follow some publisher's convention for citations, or they may be in natural text. Without a *citation* qualifier, it would not be obvious that such values within a *dc:identifier* element are bibliographic citations.
- Voting during the Plenary session at the DC8 Workshop [4] indicated that a large proportion of the Dublin Core community is in favour of a new *citation* qualifier for *dc:identifier*.

3. Examples

3.1 Dublin Core Record for a Journal Article

This is an example of a Dublin Core record for a journal article including its bibliographic citation information. This example is independent of any syntax recommendation. Any syntax used in this example is for clarification purposes only.

```
dc:title = Studying E-journal User Behavior Using Log Files
dc:creator = Lu, Y
dc:creator = Apps, A
dc:subject(scheme=DDC) = 020
dc:description = Statistical methods for analysing e-journal user behaviour.
dc:publisher = Pergamon
dcterms:issued(scheme=W3CDTF) = 2000
dc:type(scheme=DCMIType) = text
dcterms:medium(scheme=IMT) = application/pdf
dc:identifier(scheme=URI) = doi:10.1060/xyz.abc
dc:identifier(scheme=URI) =
urn:sici:07408188(200010)22:3<311:SEUB>2.0.CO;2-X
dc:identifier/citation = {
```

> Journal Title = Library and Information Science Research
> Journal Abbreviated Title = LISR
> Journal Volume = 22
> Journal Issue Number = 3
> Journal Issue Date = October 2000
> Pagination = 311-338
> }
> dc:language(scheme=RFC1766) = en
> dcterms:isPartOf(scheme=URI) = urn:issn:0740-8188
> dc:rights = © Elsevier, 2000

In the following example, only the bibliographic citation information is given.

3.2 A Plain Text Journal Article Citation

The bibliographic citation information for the above article may be encoded within its Dublin Core record, using plain text, in an *xhtml meta* tag as follows, assuming that the new *citation* element refinement will be in the *dcterms* namespace. This plain text string could choose to follow some publication convention.

```
<meta name="dcterms:citation"
content="Library and Information Science Research 22(3), 311-338
(2000)" />
```

The same bibliographic citation information encoded in HTML would be:

```
<meta name="DC.Identifier.citation"
content="Library and Information Science Research 22(3), 311-338
(2000)">
```

4. Bibliographic Citations

This section describes the bibliographic citation information for a journal article, but similar considerations would apply to capturing within existing Dubin Core elements the citation information for other types of bibliographic resource.

4.1 Journal Article Bibliographic Citation Properties

The properties generally used to capture the bibliographic citation of a journal article may be identified at three distinct levels: the **Journal** level; the journal **Issue** level (which may also include a journal Volume level); and the individual **Article** level. The

following table indicates these properties according to this hierarchical level, and where appropriate which Dublin Core element is already available to record the information.

Level	Property	DC Element
Journal	Journal Title	
	Journal Abbreviated Title	
	Journal Identifier	
Issue	Volume	
	Number	
	Chronology	
Article	Article Title	dc:title
	Author	dc:creator
	Publisher	dc:publisher
	Publication Year	dc:date
	Publication Date	dc:date
	Identifier	dc:identifier
	Pagination	

Notes:

- Journal Abbreviated Title may adhere to a published scheme, eg. ISO4, Chemical Abstracts, Index Medicus, Vancouver, World List. Often it is an abbreviated journal title which is included in a reference to an article rather than the full title of the journal.
- A journal identifier would usually be an ISSN.
- Issue Numbers are denoted differently in different journals, eg. `part'. Some journals are arranged by year, eg. 12/1999, in which case the year is effectively the volume.
- Chronology is the `cover date' as it appears on the cover of a printed journal. This may be different from the actual date of publication of the issue, which would be encoded in *dc:date/dct:issued*.
- Chronology could be denoted by a season or quarter.
- An article identifier could be: a URL to the actual article; a DOI; an article-level SICI; etc. Note that the only scheme for *dc:identifier* ratified by Dublin Core is URI, but that global standard identifiers such as ISSN and DOI can be encoded as URIs.
- Other information about an article may be recorded within other elements of the DC record. For instance, its abstract could be captured in *dc:description*, its language in *dc:language* and keywords or classification information in *dc:subject*.
- Only the most common bibliographic information about an article has been included here. A Journal Issue could also have an identifier, such as an issue-level SICI, but this is less commonly used.

It is apparent from this table that there is currently no method within Dublin Core to capture the bibliographic citation of a journal article, except by recording the information in an ad hoc way within a *dc:description* element, or by capturing the metadata in a hierarchical manner.

4.2 Other Possible Solutions

4.2.1 Using *dc:description*

The advantages of the *dc:description* solution would be to retain the essential simplicity of Dublin Core, and that the information would be presented to someone discovering the metadata in a human-readable way. The latter point is important, and any solution should provide data to a human end-user in a readily understandable form - they may wish to find the article on a library shelf. The disadvantage of using *dc:description* is that it becomes difficult to perform further machine processing on the discovered metadata, which may be required for discovery of the location of the article.

4.2.2 A Hierarchical Solution

It would be possible to partially record the information in a hierarchical way, using a *dc:relation* element to point from an article record to a record for its containing issue, and similarly from the issue record to that for the containing journal. There are two drawbacks to this solution:

- There is no obvious DC element in which to encode the pagination information, which pertains to the article itself, not to the containing journal issue.
- It may be that there is insufficient knowledge of the containing journal and issue to allow for discovery of the article from such hierarchical metadata. An end-user would expect to receive all the information about an article following a search in one piece.

It could be thought that including information about a journal in the metadata for an article breaks the `one-to-one' rule. However the objective here is not to provide information about the journal, but rather to provide a bibliographic citation of an article, which effectively identifies it.

4.2.3 An Application Profile

Another possible method for including in a metadata record information which doesn't fit obviously into one of the 15 elements of the Dublin Core element set (DCMES), or the ratified qualifiers, is to introduce application specific elements and qualifiers within an application profile [5]. Thus an option would be to define a `citation' profile and include new elements such as `journal title' within it. However, capturing bibliographic citation

information seems to be a generic, cross-domain problem. The bibliographic citation of a journal article is fairly fundamental information, required within many subject areas, at least for academia and researchers. It is information which is becoming increasingly significant with the implementation of linking technologies. Therefore it would seem sensible to have a best practice convention for capturing journal article citation information within Dublin Core metadata using existing elements, rather than a proliferation of application profiles attempting to solve the same problem in different ways with new application specific elements.

4.3 Previous Work

How to record a bibliographic record for a journal article has previously been discussed by an earlier Dublin Core Citation Working Group, whose recommendation made after the DC7 Workshop was 'Citation Qualifier Proposal - 2000' [6], which also includes details of a vote by the general DC community at the plenary session at the DC8 Workshop.

5. References

[1] DCMI Citation Working Group. http://www.dublincore.org/groups/citation

[2] A Journal Article Bibliographic Citation Dublin Core Structured Value. http://epub.mimas.ac.uk/DC/citdcsv.html

[3]NISO Committee AX: Development of an OpenURL Standard. http://library.caltech.edu/openurl/

[4]Voting during the Plenary session at DC8. http://www.dublincore.org/groups/citation/citqualifier2000.html#dc8vote

[5] Heery, R. and Patel, M. (2000) Application profiles: mixing and matching metadata schemas. *Ariadne* **25**, September 2000. http://www.ariadne.ac.uk/issue25/app-profiles

[6] Citation Qualifier Proposal - 2000. http://www.dublincore.org/groups/citation/citqualifier2000.html

A *physical object* Type in the DCMI Type Vocabulary

Dublin Core Metadata Initiative - Type Working Group

Editor: Ann Apps <ann.apps@man.ac.uk>
MIMAS, University of Manchester, UK

Status of this document: *Under Review*

Description: This document contains a proposal by the DCMI Type Working Group [1] to the Dublin Core Usage Board for a *physical object* Type in the DCMI Type Vocabulary [2].

Summary

Element	**dc:type**
Qualifier	**DCMI Type Vocabulary** [2] encoding scheme
Proposed Addition	**Physical Object**
Source of Proposal	DCMI Type Working Group [1]

---

1. Introduction and Objective

This document describes a proposal to the Dublin Core Usage Board to provide a new resource type in the DCMI Type Vocabulary [2] which would identify the genre of a resource as being a physical, 3-dimensional object.

The DCMI Type Vocabulary, which is a DCMI recommendation, provides a general, cross-domain list of approved terms which may be used as values for the Resource Type element to identify the genre of a resource. Currently this list does not include a value which can be used to signify that a resource is a physical, 3-dimensional object.

2. The Proposal

It is proposed that the DCMI Type Vocabulary be extended to include a new resource type:

Physical Object
    Name: PhysicalObject
    Label: Physical Object
    Definition: A non-human, three-dimensional object or substance. For example - a computer, the great pyramid, a sculpture, wheat. Note that digital representations of, or surrogates for, these things should use *Image, Text* or one of the other types.

Practitioners who use Dublin Core to describe resources have found that there is not currently a suitable item within the DCMI Type Vocabulary encoding scheme to indicate that a resource is a physical, 3-dimensional object. In particular, this has been noted by the Museums community, but requests for such a type have also been made from other domains such as Libraries.

3. References

[1] DCMI Type Working Group. http://www.dublincore.org/groups/type
[2] DCMI Type Vocabulary. http://dublincore.org/documents/dcmi-type-vocabulary/

Date:	Mon, 29 Apr 2002 17:14:02 -0400
Reply-To:	A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender:	A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From:	"Rebecca S. Guenther" <rgue@LOC.GOV>
Subject:	[Agenda point 4]: Physical object proposal
Content-Type:	TEXT/PLAIN; charset=US-ASCII

Preparation for this agenda item is to look at the proposal from the DCMI-Type WG (http://epub.mimas.ac.uk/DC/type-physobj.html).

The major comment was submitted by Heike Neuroth on behalf of SUB Goettingen questioning whether the proposal was supposed to exclude humans. A similar concern was expressed by Berthold Weiss and Christel Hengel (DB). We have had previous discussions about whether the scope of DCMES includes descriptions of agents. Although we had seemed (I think) to come to consensus that this would be a separate work item now being pursued by the DC-Agents WG and that the current DCMES does not easily allow for description of persons, this may be the time to put in writing any formal decisions. An additional concern was that the UB not attempt to encroach on the territory of other standards bodies that have such concepts. However, I see this as a simple mechanism to give a high level category to a resource that does not now fit into any of the others on the DCMI Type vocabulary. Of the terms not approved in the original round of voting, this is the only one that is clearly still needed (the others not approved were person, organization, event, which we have said are descriptions of "agents").

Expected outcome: approval of a term with documentation of the scope of DCMES in terms of agent descriptions.

How much time: 30 minutes? or maybe less.

Rebecca

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Date:	Thu, 7 Mar 2002 18:03:17 +0100
Reply-To:	A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender:	A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From:	Traugott.Koch@UB2.LU.SE
Subject:	Subject vocabulary registration tool: mock-up available
Comments:	cc: wagnerh@oclc.org, brownn@oclc.org, weibel@oclc.org
Content-Type:	text/plain; charset=us-ascii

Dear all,

in the context of a trip to OCLC I made an effort to

advance the vocabulary registration tasks.

I, once again, looked through the guideline text (thanks

to Stuart for taking care of it for a while) and will

propose a few changes.

Cf. my latest version at:

http://www.lub.lu.se/~traugott/drafts/vocab-guide3.html

Harry Wagner and I had fruitful discussions about the
practical solutions and details for such a registration
"service" and he (together with his assistant Nick Brown)
did spend a lot of time until now to develop a mock-up

for all of us to look at. Andy Powell and I managed to

discuss the solution and a few evolving issues before

leaving OCLC again. These notes might not be in perfect sync
anymore with what Harry did during the last two weeks,
however. I hav'nt inspected the mock-up's yet.

The mock-up will be available at:
http://wip.dublincore.org:8080/registry/Registry
under: Related Applications

from today.

They are not tested yet and not complete.

The guidelines document:

I made a few corrections to Stuarts latest version

12/12/2001 according to the discussion earlier this year,

like replacing the word "rules" with "guidelines" and
related adaptations in the headings 3.1 to 3.4 etc.

A few other corrections were due to decisions at our
Tokyo meeting, like "Suggested abbreviated name (acronym)"
rather than "token", or the wording in 3.1.1.

Finally, I recommend to omit the last sentence of the

second paragraph in Stuarts version (DCMI recognizes ...),

since this guidelines paper is mainly directed towards

users of the registration "service" and should not

contain appeals or reminders to ourselfes/DCMI.
There is a link to Stuarts latest version from my page.

The registration tool:

According to Harry the full DC metadata registry will not
be operational before the 3. quarter of 2002. It will

be rather different from our subject vocabulary registry
and will focus on DCMI's "own" terms.
This is one of the reasons why Harry did a separate

approach and solution in our case.

Requirements for the vocabulary scheme registration
In the absence of a full requirements document Harry and

I listed the most important functionalities which were

outlined by Harry in a process overview diagram (could you
make this available, Harry?) and used as the basis for the

design work.

The most important functionalities are:

*Submit
Entry form (mandatory information will be checked: full name,
   maintenance agency, submitter email)
  -Email to shepherd/U.B.
  -Email to submitter

*Search
Summary results (full name, acronym and link to full record)
Scheme detail

*Approval process (starts from Scheme detail after a search)
Possibility to search for status: submitted and archived
Edit
Remove (to archive)
Register
  -Email to submitter
Reject (to archive)
  -Email to submitter

*Administration
Login
Generate report
Publish Schemes report (HTML. alphabetic list of all registered
 schemes with full name, acronym and link to full record)

*Help
Guidelines document

-
The internal database structure needs to contain the following
elements in addition to the elements in the submission form:

Status: submitted, registered, rejected, archived (incl.
   obsolete records. No audit history is kept.)
Date: date of submission, date registered, last update

Editors comment

-
Among the open issues are:
*Internationalisation: do we need UNICODE?; should the user

interface be translated into several languages?

*Does this list of subject vocabulary qualifiers need to be

available from the main DCMI Open Metadata Registry? (cf.

Guidelines 2.3). The exact content of the latter seems not
finally decided yet.

*Do all the vocabularies need to be represented in a RDF
schema, e.g. for validation purposes? In the RDFS for

DCMI terms or in a different one?

How are new vocabularies added to the schema?
Does the registry need to display this schema?
This would be a potentially time consuming requirement.

*Should the five "recommended" subject schemes (DDC, UDC,

LCC, LCSH, MeSH) voted in to the DC Qualifier namespace

remain there? Cf.: "DCMI does not approve vocabulary

schemes ..." (Guidelines 1.1)
-

Unfortunately, I need to travel a lot during the coming weeks.
So, do not expect me to immediately react on all your comments.
Please do not forget to include wagnerh@oclc.org and
brownn@oclc.org as receivers of all related mail.

Best regards,
Traugott
--

    +--+

```
| TRAUGOTT KOCH, Senior librarian, Digital Library Scientist

|  NETLAB, Lund Univ. Libraries Development Dept. and Center

|  of Knowledge Technology at DTV/DTU in Lyngby, Denmark.
| NetLab: P.O. Box 3.  S-221 00  Lund, Sweden

| Tel: int+46 46 2229233    Fax: int+46 46 2223682

| E-mail: traugott.koch@ub2.lu.se

| Personal homepage: http://www.lub.lu.se/koch.html


+----------------------------------------------------------+
```

Back to: Top of message | Previous page | Main DC-USAGE page

JISCmail *powered by Listserv*
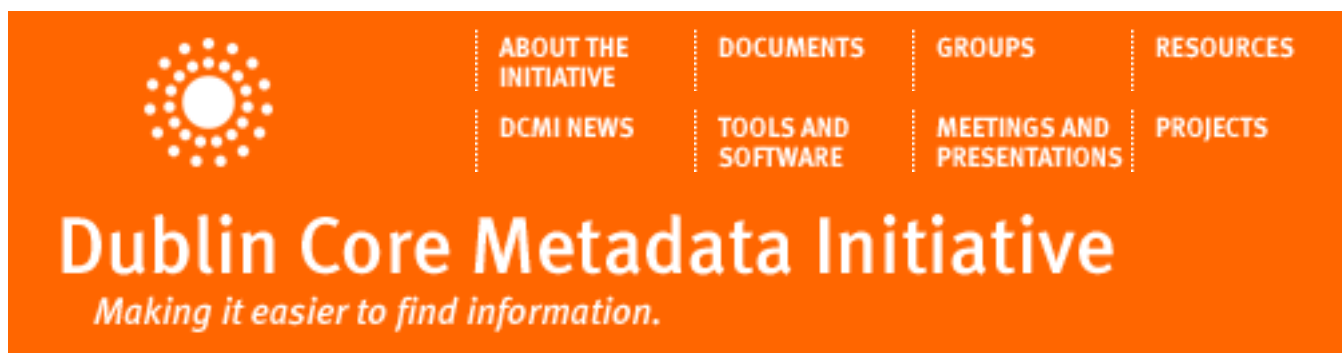
Vocabulary and Encoding Scheme Registration

Home Help   Search for Existing Schemes   Submit a Scheme for Registration   Administration

The goal of this application is the establishment of a registry of vocabulary and encoding schemes. The DCMI does not approve vocabulary and encoding schemes, but acknowledges formally maintained schemes as suitable for use with DC metadata. DCMI maintained schemes have the status "Recommended". Encoding schemes for other DCMES elements than Subject can have the status "Conforming" or "Recommended".

Please direct questions, comments and suggestions to:

Harry Wagner

Dublin Core Metadata Initiative

OCLC Office of Research

Guidelines for registration of vocabulary and encoding scheme qualifiers

DCMI recognizes that different discourse and practice communities have legitimate, particular needs to be able to select either value qualifier schemes from an array of recognized controlled vocabularies (e.g., thesauri, classification systems, taxonomies, ontologies, and word lists) or value encoding schemes that determine the syntactic structure of those values (e.g., date encoding schemes). To promote the greatest degree of interoperablity, DCMI encourages the registration of recognized value qualifiers with DCMI.

DCMI recognizes that in order to promote interoperability through the common assignment of terms from established, publicly recognized controlled vocabularies and encoding schemes, the most critical, immediate need is to provide registration mechanisms for vocabularies for the "Subject" vocabulary.

1. General

- 1.1 DCMI does not approve vocabulary schemes, but acknowledges formally maintained schemes as suitable for use with DC metadata. Thus, the schemes have the status "Registered" which does not necessarily imply that they are recommended by the DCMI.

- 1.2 DCMI maintained schemes have the status "Recommended".

2. Registration process

- 2.1 Anyone can propose a scheme for registration by submitting the required information to the web form at: http://dublincore.org/usage/documents/scheme-registry.shtml

- 2.2 The DCMI Usage Board applies a "fast track" decision process involving the guidelines and criteria listed below.

- 2.3 Schemes given the status "Registered" (or "Recommended") are included in the DCMI Registry.

- 2.4 For each scheme, the registrant should provide the following information:

  - ❍ Full name of the scheme
  - ❍ Suggested abbreviated name (acronym)
  - ❍ Maintenance agency
  - ❍ Maintenance agency contact person
  - ❍ Maintenance agency contact email address
  - ❍ Submitter email address (if different from the maintenance agency contact email address)
  - ❍ Online access point (URL if applicable)
  - ❍ Access information (URL or physical address)
  - ❍ Additional information about the scheme
  - ❍ Domain(s) and extent of usage
  - ❍ Associated element(s) or element qualifier(s)

Example

Full name of the scheme	Dewey Decimal Classification
Suggested abbreviated name (acronym)	DDC
Maintenance agency	OCLC Forest Press
Maintenance agency contact person name	{ Name of current editor or contact person }
Maintenance agency contact email address	dewey@oclc.org
Submitter email address	{ Email address of submitter if different than the maintenance agency }
Online access point	Web Dewey in CORC (http://purl.oclc.org/corc/)
Access information	http://www.oclc.org/fp/products/index.htm

Additional information about the scheme	License required
Domain(s) and extent of usage	Most frequently used universal classification system for library OPACs and national bibliographies; limited recent usage in web catalogues etc.
Associated element(s) or element qualifier(s)	Subject

3. Guidelines

- 3.1 **Kind of schemes to be registered**

  - 3.1.1 Schemes which are created and maintained by recognized entities and properly published may be registered.

- 3.2 **Naming of the schemes**

  - 3.2.1 Schemes should be named with their official names. The name of the organization maintaining or owning the scheme is rarely sufficient since it does not unambiguously stand for the vocabulary alone.

  - 3.2.2 The scheme names and tokens are only appropriate for an unchanged use of an official version of the scheme. Unofficial versions, modified versions, unofficial translations and similar should not use the official label but apply a local name (e.g. based on the service, project or provider name. Ex.: The DutchESS service is using a local variant of the BC classification. It should be named DutchESSC or DutchESS-BC if it is really close to the official scheme).

  - 3.2.3 A subset of an official scheme where terms are unaltered may not be registered separately.

- 3.3 **Tokens/acronyms to be used as DCMI qualifier labels**

  - 3.3.1 The tokens must be unique. Every effort will be made to maintain the short name proposed by the maintaining agency. In

case of collisions, a suitable alternative will be chosen in consultation with the maintaining agency.

- 3.3.2 Existing official acronyms or short names should be used as tokens.

- 3.3.3 Official translated versions receive a label where a standard language code is added, e.g. DDC-fr. This is necessary since translated versions are rarely fully equivalent. Other translations, if registered, will be assigned an alternative name.

   ❍ 3.4 **Specification of scheme versions**

- 3.4.1 DCMI will register multiple versions of schemes if they appear to be important and/or it is requested by a user applying for registration.

- 3.4.2 Versioned schemes should be registered and used when there is a considerable probability that databases exist which apply terms and classes belonging to older versions of the scheme.

- 3.4.3 The official version of the scheme used should be indicated like in the following examples: DDC21, DDC21ab-fr (abridged DDC version 21 in French), MSC2000.

Related links:
Version Oct 2001
Stuart Sutton's latest version

Draft list of candidate vocabularies

Traugott Koch (**Traugott.Koch@ub2.lu.se**)

Created: 2001-05-11
Last update: 2002-02-13
URL: http://www.lub.lu.se/~traugott/drafts/vocab-guide3.html

Date: Wed, 24 Apr 2002 09:06:30 +0200
Reply-To: A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender: A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From: Thomas Baker <thomas.baker@BI.FHG.DE>
Subject: [Agenda point 6] Documentation and Web site
In-Reply-To: <20020424083552.A1708@LEPIDUS>; from thomas.baker@BI.FHG.DE on Wed, Apr 24, 2002 at 08:35:53AM +0200
Content-Type: text/plain; charset=us-ascii

> 6. Documentation and Web site (Tom Baker)
>
>   -- http://dublincore.org/usage/documents/
>   -- http://dublincore.org/usage/meetings/
>   -- http://dublincore.org/usage/decisions/
>   -- http://dublincore.org/usage/terms/

I would like to start by briefly explaining my rationale in
re-thinking the work-flow for maintaining the Usage Board Web
pages, then discuss at the Web pages above from the standpoint
of content and presentation. For example, does the numbering
system for decisions seem well-conceived, and do the decision
points seem like a good way to link term declarations with
historical documentation from Usage Board deliberations?
What additional "views" of these pages will users need?
Printouts of the Web pages will be in the packet.

In particular, I would like to look at the
consolidated listing of Elements and Qualifiers at
http://dublincore.org/usage/terms/terms-latest.html. I took
great care in compiling and checking this document but would
appreciate any additional proofreading by members of the UB.
I am assuming that I will maintain this document until Harry is
ready to dump it into a Vocabulary Management System, so I will
add a document that summarizes the state of the VMS effort and
what it will likely mean for future maintenance workflows.

I will not talk at all about registration of encoding schemes,
to be covered by Traugott.

Up to this point, I should think we would need perhaps 60
minutes at most.

In light of some recent confusion on the list regarding
status, however, I have been thinking over the past few days
that we really should take a second look at the whole issue of
recommendation status. Has the Usage Board really (implicitly)

already assigned a special, higher status (currently called
"cross-domain") to everything approved in 1999 and 2000?
Or are these things simply "recommended"? Note that I have
not yet included Status from latest-terms.html except for
the new DC-Ed terms. Do we perhaps have an opportunity to
"get it right" by holding back in this regard? I will make
a posting about this in the next few days -- in effect,
a one-page position paper, which will be included in the
packet -- and would like to take at least half an hour in
Bath to discuss the alternatives.

I should think, then, that we could cover this entire agenda
point in 90 minutes.

--
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Back to: Top of message | Previous page | Main DC-USAGE page

JISCmail powered by Listserv

```
                    Title:              DCMI Usage Board documentation
                    Maintainer:         Thomas Baker, Usage Board Chair
                    Identifier:         http://dublincore.org/usage/documents/
                    Latest version:     http://dublincore.org/usage/documents/
                    Installed as:       http://dublincore.org/usage/documents/index.shtml
                    Date Last Modified: 2002-04-27
                    Description:

                       This page, periodically updated, provides annotated links
                       to process and policy documentation produced by or relevant
                       to the DCMI Usage Board.  Documentation of DCMI metadata
                       terms -- the DCMI Type Vocabulary, the Dublin Core Metadata
                       Element Set version 1.1, plus all elements and qualifiers
                       approved since DCMES 1.1 -- is in the process of being
                       significantly overhauled and will be available at
                       http://dublincore.org/usage/terms/.


                    == Mission and Principles
                       http://dublincore.org/usage/documents/mission/

                       This document describes the scope and mission of the DCMI Usage Board,
                       summarizing the principles of "grammar" according to which it maintains
                       the metadata vocabularies of the Dublin Core Metadata Initiative.  This
                       description complements that of the DCMI Namespace Policy (see below),
                       which also defines terms of reference.

                       Previous versions:
                       2001-06-28: http://dublincore.org/usage/documents/2001/06/28/mission/
                       2001-06-12: http://dublincore.org/usage/meetings/2001/05/mission.html
                       2001-05-07: http://dublincore.org/usage/meetings/2001/05/DCMI-Usage_mission.htm

                       Related links:
                       2001-05-07: http://www.dlib.org/dlib/october00/baker/10baker.html

                    == Usage Board Administrative Process
                       http://dublincore.org/usage/documents/process/

                       Previous versions:
                       2002-03-18: http://128.253.121.110/DC-UB/DC-UBprocess8.html
                       2001-12-22: http://www.ischool.washington.edu/sasutton/dcmi/DC-UBprocess7.html
                       2001-12-08: http://www.ischool.washington.edu/sasutton/dcmi/DC-UBprocess6.html
                       2001-12-01: http://128.253.121.110/DC-UB/DC-UBprocess5.html
                       2001-11-05: http://128.253.121.110/DC-UB/DC-UBprocess4.html
                       2001-06-27: http://dublincore.org/usage/documents/2001/06/27/process/
                       2001-06-12: http://dublincore.org/usage/documents/2001/06/12/criteria/
                       2001-05-02: http://128.253.121.110/DC-UB/DC-UBprocess.html

                    == Procedure for Approval of DCMI Metadata Terms and Recommendations

                       This document complements the Usage Board Administrative
                       Process (above) by providing a table and diagram summarizing
                       the administrative steps for moving proposals.

                       Previous versions:
                       2001-06-27: http://dublincore.org/usage/documents/2001/06/27/approval/

                    == Namespace Policy for the Dublin Core Metadata Initiative (DCMI)
                       http://dublincore.org/documents/dcmi-namespace/

                       An XML namespace is a collection of names, identified by a
                       URI reference, that are used in XML documents as element
                       types and attribute names.  The use of XML namespaces to
                       uniquely identify metadata terms allows those terms to be
                       unambiguously used across applications, promoting the
                       possibility of shared semantics.  DCMI adopts this mechanism
                       for the identification of all DCMI terms.  This document
```

```
        specifies the conventions used for identifying current and
        future DCMI namespaces.  All DCMI recommendations that make
        use of namespaces will conform to this recommendation.

        Previous versions:
        2001-10-26: http://dublincore.org/documents/2001/10/26/dcmi-namespace/
        2001-09-17: http://dublincore.org/documents/2001/09/17/dcmi-namespace/
        2001-03-09: http://dublincore.org/documents/2001/03/09/dcmi-namespace/

   == DCMI Publication Policy
        http://dublincore.org/usage/documents/publications/

        This document provides an overview of the types of publications
        produced by the Dublin Core Metadata Initiative, with a summary
        of persistence policies and copyright.

        Previous versions:
        2001-07-03: http://dublincore.org/usage/documents/2001/07/03/publications/

   == Guidelines for Vocabulary and Encoding Scheme Qualifiers
        http://dublincore.org/usage/documents/vocabulary-guidelines/

        Previous versions:
        2002-03-23: http://www.lub.lu.se/~traugott/drafts/vocab-guide3.html
        2001-10-08: http://dublincore.org/usage/documents/2001/10/08/vocabulary-
   guidelines/
        2001-10-01: http://www.lub.lu.se/~traugott/drafts/vocab-guide2.html
        2001-05-01: http://dublincore.org/usage/meetings/2001/05/vocabulary-
   guidelines.htm

   == DCMI Usage Board mailing-list discussion
        http://www.jiscmail.ac.uk/lists/dc-usage.html

        Membership in the mailing list is limited to members of the
        Usage Board, however all postings to this list are publicly
        accessible, with a lag of several hours, at the JISCMAIL Web
        site.
```

```
Title:               DCMI Usage Board decisions
Identifier:          http://dublincore.org/usage/decisions/
Latest version:      http://dublincore.org/usage/decisions/
Installed as:        http://dublincore.org/usage/decisions/index.shtml
Date Last Modified:  2002-04-27
Description:

        This document is a periodically updated index, in
        reverse chronological order, of decisions taken by the
        Usage Board (since May 2001); its precedessor, the Usage
        Committee (1999-2000); and the Advisory Committee
        (1998-1999).  See http://dublincore.org/usage/meetings/
        for historical details.  Decisions documented here can
        be cited by their full Identifier.  This document is
        maintained by the Chair of Usage Board, currently Tom
        Baker.

<a name="2001.05">
Decision:   2001.05
Identifier: http://dublincore.org/usage/decisions/index.shtml#2001.05
Title:      Usage Board decisions on DC-Government proposal
Date:       2001-11-23
Text:       http://dublincore.org/usage/decisions/2001/government-02.shtml
See also:   http://dublincore.org/usage/meetings/2001/10/agenda.shtml
See also:   http://dublincore.org/usage/meetings/2001/10/meeting-notes.shtml
See also:   http://dublincore.org/usage/meetings/2001/10/2001-10-19.dc-usage.pdf

<a name="2001.04">
Decision:   2001.04
Identifier: http://dublincore.org/usage/decisions/index.shtml#2001.04
Title:      Change in the Language element definition
Date:       2001-05-21
Text:       http://dublincore.org/usage/meetings/2001/05/DCMI-Usage_language-
change.htm
See also:   http://dublincore.org/usage/meetings/2001/05/index.shtml
See also:   http://dublincore.org/usage/meetings/2001/05/meetingnotes.shtml

<a name="2001.03">
Decision:   2001.03
Identifier: http://dublincore.org/usage/decisions/index.shtml#2001.03
Title:      Approval of URI as an encoding scheme for Source
Date:       2001-05-21
Text:       http://dublincore.org/usage/decisions/2001/05/uri-source.txt
See also:   http://dublincore.org/usage/meetings/2001/05/index.shtml
See also:   http://dublincore.org/usage/meetings/2001/05/meetingnotes.shtml

<a name="2001.02">
Decision:   2001.02
Identifier: http://dublincore.org/usage/decisions/index.shtml#2001.02
Title:      Use of "name" and "label" clarified
Date:       2001-05-21
Text:       http://dublincore.org/usage/decisions/2001/05/name-label.txt
See also:   http://dublincore.org/usage/meetings/2001/05/index.shtml
See also:   http://dublincore.org/usage/meetings/2001/05/meetingnotes.shtml

<a name="2001.01">
Decision:   2001.01
Identifier: http://dublincore.org/usage/decisions/index.shtml#2001.01
Title:      Usage Board decisions on DC-Education proposal
Date:       2001-05-21
Text:       http://www.dublincore.org/usage/decisions/2001/education-01.shtml
See also:   http://dublincore.org/usage/meetings/2001/05/index.shtml
See also:   http://dublincore.org/usage/meetings/2001/05/meetingnotes.shtml
See also:   http://dublincore.org/terms/elements-qualifiers/index.shtml#audience
See also:   http://dublincore.org/terms/elements-qualifiers/index.shtml#mediator
See also:   http://dublincore.org/terms/elements-qualifiers/index.shtml#conformsTo
```

```
           <a name="2000.02">
           Decision:   2000.02
           Identifier: http://dublincore.org/usage/decisions/index.shtml#2000.02
           Title:      DCMI Type Vocabulary
           Date:       2000-07-11
           Text:       http://dublincore.org/documents/2000/07/11/dcmi-type-vocabulary/

           <a name="2000.01">
           Decision:   2000.01
           Identifier: http://dublincore.org/usage/decisions/index.shtml#2000.01
           Title:      Dublin Core Qualifiers
           Date:       2000-07-11
           Text:       http://dublincore.org/documents/2000/07/11/dcmes-qualifiers/

           <a name="1999.01">
           Decision:   1999.01
           Identifier: http://dublincore.org/usage/decisions/index.shtml#1999.01
           Title:      Dublin Core Metadata Element Set, version 1.1
           Date:       1999-07-02
           Text:       http://dublincore.org/documents/1999/07/02/dces/

           <a name="1998.01">
           Decision:   1998.01
           Identifier: http://dublincore.org/usage/decisions/index.shtml#1998.01
           Title:      Dublin Core Metadata Element Set, version 1.0
           Date:       1998-09
           Text:       http://dublincore.org/documents/1998/09/dces/
```

```
Title:              DCMI Elements and Qualifiers
Maintainer:         Thomas Baker, Usage Board Chair
Identifier:         http://dublincore.org/usage/terms/2002/04/29/elements-
qualifiers/
Replaces:           http://dublincore.org/documents/dcmes-qualifiers/
Replaces:           http://dublincore.org/documents/dces/
Latest version:     http://dublincore.org/usage/terms/elements-qualifiers/
Installed as:       http://dublincore.org/usage/terms/elements-
qualifiers/index.shtml
Status of document: After a final review by the Usage Board, this draft
                    document will replace all other documents as the
                    definitive expression of DCMI element and qualifier
                    definitions. Its status will be that of a DCMI
                    Recommendation.
Date Last Modified: 2002-04-29 (Note: must agree with date-stamp in Identifier.)
Description:        This document is a consolidated and updated
                    representation of all elements and qualifiers
                    recommended by DCMI as of the Date Last Modified.
```

Contents

Introduction
I.   Elements of the 1999 Dublin Core (identified by
     the namespace URI http://purl.org/dc/elements/1.1/)
II. Other Elements
III. Element Refinements
IV. Encoding Schemes
References

Introduction

This document is a consolidated representation of metadata terms
recommended by DCMI as of the Date Last Modified in the document
header information. Specifically, this includes all of the
terms defined in the Dublin Core Element Set version 1.1 of 2
July 1999 [DCMES], the Dublin Core Qualifiers of 11 July 2000
[DCQ], and three additional terms approved on 21 May 2001 by the
Usage Board [DECISION2001.01] -- in short, all of the terms
recommended by DCMI to date except for those of the DCMI Type
Vocabulary, which is described in a separate document [DCT1].

This consolidated document replaces the earlier documents as the
authoritative representation of DCMI metadata terms. As of
April 2002 it is expected that this document will eventually be
replaced by a terminological database, or Vocabulary Management
System (VMS), which will become the definitive repository of the
definitions and related versioning information for DCMI metadata
terms (see [DC-REGISTRY]).

After extensive discussions on DCMI mailing lists and in
accordance with a decision of the Usage Board [DECISION2001.02],
this document describes metadata terms with the attributes used
in the Dublin Core Qualifiers recommendation of July 2000
{DCQ} rather than those used for the Dublin Core Metadata
Element Set, version 1.1, of July 1999 [DCMES], which were based
more closely on the ISO/IEC 11179 standard [ISO11179].

The DCMI terms represented here are described with the following
attributes, of which URI of Term, Name, Label, Definition, Term
Type, and Decision are obligatory:

   Name: The unique token assigned to the term.
   URI: The unique identifier of a term (see [TERMS]).
   Label: The human-readable label assigned to
                      the term.

```
     Definition:        A statement that represents the concept
                        and essential nature of the term.
     Comment:           Additional information about the
                        term or its application.
     See Also:          A link to more information about the term,
                        such as supporting documentation for the
                        original proposal to the Usage Board.
     Term Type:         Element, Element Refinement, or Encoding Scheme
                        (see [PRINCIPLES]).
     Terms Qualified:   If a "qualifier" (Element Refinement or Encoding
                        Scheme), name(s) of the Element(s) qualified.
     Status:            Status assigned to term by Usage Board
                        (see [TERMS] and [PROCESS]).
     Decision:          Number of Usage Board decision (see [DECISIONS]).
     VMS note:          Additional information of relevance to the
                        planned Vocabulary Management System.


   References for Introduction

   [DC-REGISTRY] http://dublincore.org/groups/registry/
   [DCMES] http://dublincore.org/documents/1999/07/02/dces/
   [DCT1] http://dublincore.org/documents/dcmi-type-vocabulary/
   [DCQ] http://dublincore.org/documents/2000/07/11/dcmes-qualifiers/
   [DECISIONS] http://dublincore.org/usage/decisions/index.shtml
   [DECISION2001.01] http://dublincore.org/usage/decisions/index.shtml#2001.01
   [DECISION2001.02] http://dublincore.org/usage/decisions/index.shtml#2001.02
   [ISO11179] ftp://sdct-sunsrv1.ncsl.nist.gov/x3l8/11179/
   [PRINCIPLES] http://dublincore.org/usage/documents/mission/
   [PROCESS] http://dublincore.org/usage/documents/process/
   [TERMS] http://dublincore.org/usage/terms/


   ----------------------------------------------------------------------
   I. Elements of the 1999 Dublin Core
   ----------------------------------------------------------------------

   <a name=title>
     Name:       title
     URI:        http://purl.org/dc/elements/1.1/title
     Label:      Title
     Definition: A name given to the resource.
     Comment:    Typically, a Title will be a name by which the resource is
                 formally known.
     Term Type:  Element
     Decision:   http://dublincore.org/usage/decisions/index.shtml#1999.01

   <a name=creator>
     Name:       creator
     URI:        http://purl.org/dc/elements/1.1/creator
     Label:      Creator
     Definition: An entity primarily responsible for making the content of
                 the resource.
     Comment:    Examples of a Creator include a person, an organisation,
                 or a service.
                 Typically, the name of a Creator should be used to
                 indicate the entity.
     Term Type:  Element
     Decision:   http://dublincore.org/usage/decisions/index.shtml#1999.01

   <a name=subject>
     Name:       subject
     URI:        http://purl.org/dc/elements/1.1/subject
     Label:      Subject and Keywords
     Definition: The topic of the content of the resource.
     Comment:    Typically, a Subject will be expressed as keywords,
                 key phrases or classification codes that describe a topic
```

```
                          of the resource.
                          Recommended best practice is to select a value from a
                          controlled vocabulary or formal classification scheme.
          Term Type:      Element
          Decision:       http://dublincore.org/usage/decisions/index.shtml#1999.01

     <a name=description>
          Name:           description
          URI:            http://purl.org/dc/elements/1.1/description
          Label:          Description
          Definition:     An account of the content of the resource.
          Comment:        Description may include but is not limited to: an abstract,
                          table of contents, reference to a graphical representation
                          of content or a free-text account of the content.
          Term Type:      Element
          Decision:       http://dublincore.org/usage/decisions/index.shtml#1999.01

     <a name=publisher>
          Name:           publisher
          URI:            http://purl.org/dc/elements/1.1/publisher
          Label:          Publisher
          Definition:     An entity responsible for making the resource available
          Comment:        Examples of a Publisher include a person, an organisation,
                          or a service.
                          Typically, the name of a Publisher should be used to
                          indicate the entity.
          Term Type:      Element
          Decision:       http://dublincore.org/usage/decisions/index.shtml#1999.01

     <a name=contributor>
          Name:           contributor
          URI:            http://purl.org/dc/elements/1.1/contributor
          Label:          Contributor
          Definition:     An entity responsible for making contributions to the
                          content of the resource.
          Comment:        Examples of a Contributor include a person, an organisation,
                          or a service.
                          Typically, the name of a Contributor should be used to
                          indicate the entity.
          Term Type:      Element
          Decision:       http://dublincore.org/usage/decisions/index.shtml#1999.01

     <a name=date>
          Name:           date
          URI:            http://purl.org/dc/elements/1.1/date
          Label:          Date
          Definition:     A date associated with an event in the life cycle of the
                          resource.
          Comment:        Typically, Date will be associated with the creation or
                          availability of the resource.  Recommended best practice
                          for encoding the date value is defined in a profile of
                          ISO 8601 [W3CDTF] and follows the YYYY-MM-DD format.
          Term Type:      Element
          Decision:       http://dublincore.org/usage/decisions/index.shtml#1999.01

     <a name=type>
          Name:           type
          URI:            http://purl.org/dc/elements/1.1/type
          Label:          Resource Type
          Definition:     The nature or genre of the content of the resource.
          Comment:        Type includes terms describing general categories, functions,
                          genres, or aggregation levels for content. Recommended best
                          practice is to select a value from a controlled vocabulary
                          (for example, the working draft list of Dublin Core Types
                          [DCT1]). To describe the physical or digital manifestation
                          of the resource, use the FORMAT element.
```

```
                    Term Type:    Element
                    Decision:     http://dublincore.org/usage/decisions/index.shtml#1999.01

          <a name=format>
               Name:        format
               URI:         http://purl.org/dc/elements/1.1/format
               Label:       Format
               Definition:  The physical or digital manifestation of the resource.
               Comment:     Typically, Format may include the media-type or dimensions of
                            the resource. Format may be used to determine the software,
                            hardware or other equipment needed to display or operate the
                            resource. Examples of dimensions include size and duration.
                            Recommended best practice is to select a value from a
                            controlled vocabulary (for example, the list of Internet Media
                            Types [MIME] defining computer media formats).
               Term Type:   Element
               Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01

          <a name=identifier>
               Name:        identifier
               URI:         http://purl.org/dc/elements/1.1/identifier
               Label:       Resource Identifier
               Definition:  An unambiguous reference to the resource within a given context.
               Comment:     Recommended best practice is to identify the resource by means
                            of a string or number conforming to a formal identification
                            system.
                            Example formal identification systems include the Uniform
                            Resource Identifier (URI) (including the Uniform Resource
                            Locator (URL)), the Digital Object Identifier (DOI) and the
                            International Standard Book Number (ISBN).
               Term Type:   Element
               Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01

          <a name=source>
               Name:        source
               URI:         http://purl.org/dc/elements/1.1/source
               Label:       Source
               Definition:  A reference to a resource from which the present resource
                            is derived.
               Comment:     The present resource may be derived from the Source resource
                            in whole or in part.  Recommended best practice is to reference
                            the resource by means of a string or number conforming to a
                            formal identification system.
               Term Type:   Element
               Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01

          <a name=language>
               Name:        language
               URI:         http://purl.org/dc/elements/1.1/language
               Label:       Language
               Definition:  A language of the intellectual content of the resource.
               Comment:     Recommended best practice is to use RFC 3066 [RFC3066],
                            which, in conjunction with ISO 639 [ISO639], defines two-
                            and three-letter primary language tags with optional
                            subtags.  Examples include "en" or "eng" for English,
                            "akk" for Akkadian, and "en-GB" for English used in the
                            United Kingdom.
               Term Type:   Element
               Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01
               Decision:    http://dublincore.org/usage/decisions/index.shtml#2001.04

          <a name=relation>
               Name:        relation
               URI:         http://purl.org/dc/elements/1.1/relation
               Label:       Relation
```

```
    Definition:  A reference to a related resource.
    Comment:     Recommended best practice is to reference the resource by means
                 of a string or number conforming to a formal identification
                 system.
    Term Type:   Element
    Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01

<a name=coverage>
    Name:        coverage
    URI:         http://purl.org/dc/elements/1.1/coverage
    Label:       Coverage
    Definition:  The extent or scope of the content of the resource.
    Comment:     Coverage will typically include spatial location (a place name
                 or geographic coordinates), temporal period (a period label,
                 date, or date range) or jurisdiction (such as a named
                 administrative entity).
                 Recommended best practice is to select a value from a
                 controlled vocabulary (for example, the Thesaurus of Geographic
                 Names [TGN]) and that, where appropriate, named places or time
                 periods be used in preference to numeric identifiers such as
                 sets of coordinates or date ranges.
    Term Type:   Element
    Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01

<a name=rights>
    Name:        rights
    URI:         http://purl.org/dc/elements/1.1/rights
    Label:       Rights Management
    Definition:  Information about rights held in and over the resource.
    Comment:     Typically, a Rights element will contain a rights
                 management statement for the resource, or reference
                 a service providing such information. Rights information
                 often encompasses Intellectual Property Rights (IPR),
                 Copyright, and various Property Rights.
                 If the Rights element is absent, no assumptions can be made
                 about the status of these and other rights with respect to
                 the resource.
    Term Type:   Element
    Decision:    http://dublincore.org/usage/decisions/index.shtml#1999.01

    ---------------------------------------------------------------------------
    II.  Other Elements
    ---------------------------------------------------------------------------

<a name=audience>
    Name:        audience
    URI:         http://purl.org/dc/terms/audience
    Label:       Audience
    Definition:  A class of entity for whom the resource is intended or useful.
    Comment:     A class of entity may be determined by the creator or the
                 publisher or by a third party.
    Term Type:   Element
    Status:      Domain-Specific
    Decision:    http://dublincore.org/usage/decisions/index.shtml#2001.01

    ---------------------------------------------------------------------------
    III. Element Refinements
    ---------------------------------------------------------------------------

<a name=alternative>
    Name:        alternative
    URI:         http://purl.org/dc/terms/alternative
    Label:       Alternative
    Definition:  Any form of the title used as a substitute or alternative
                 to the formal title of the resource.
    Comment:     This qualifier can include Title abbreviations as well
```

```
                         as translations.
         Term Type:  Element Refinement
         Terms Qlfd: Title
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=tableOfContents>
         Name:       tableOfContents
         URI:        http://purl.org/dc/terms/tableOfContents
         Label:      Table Of Contents
         Definition: A list of subunits of the content of the resource.
         Term Type:  Element Refinement
         Terms Qlfd: Description
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=abstract>
         Name:       abstract
         URI:        http://purl.org/dc/terms/abstract
         Label:      Abstract
         Definition: A summary of the content of the resource.
         Term Type:  Element Refinement
         Terms Qlfd: Description
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=created>
         Name:       created
         URI:        http://purl.org/dc/terms/created
         Label:      Created
         Definition: Date of creation of the resource.
         Term Type:  Element Refinement
         Terms Qlfd: Date
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=valid>
         Name:       valid
         URI:        http://purl.org/dc/terms/valid
         Label:      Valid
         Definition: Date (often a range) of validity of a resource.
         Term Type:  Element Refinement
         Terms Qlfd: Date
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=available>
         Name:       available
         URI:        http://purl.org/dc/terms/available
         Label:      Available
         Definition: Date (often a range) that the resource will become or did
                     become available.
         Term Type:  Element Refinement
         Terms Qlfd: Date
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=issued>
         Name:       issued
         URI:        http://purl.org/dc/terms/issued
         Label:      Issued
         Definition: Date of formal issuance (e.g., publication) of the resource.
         Term Type:  Element Refinement
         Terms Qlfd: Date
         Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

      <a name=modified>
         Name:       modified
         URI:        http://purl.org/dc/terms/modified
         Label:      Modified
         Definition: Date on which the resource was changed.
         Term Type:  Element Refinement
```

```
                    Terms Qlfd: Date
                    Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=extent>
               Name:       extent
               URI:        http://purl.org/dc/terms/extent
               Label:      Extent
               Definition: The size or duration of the resource.
               Term Type:  Element Refinement
               Terms Qlfd: Format
               Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=medium>
               Name:       medium
               URI:        http://purl.org/dc/terms/medium
               Label:      Medium
               Definition: The material or physical carrier of the resource.
               Term Type:  Element Refinement
               Terms Qlfd: Format
               Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=isVersionOf>
               Name:       isVersionOf
               URI:        http://purl.org/dc/terms/isVersionOf
               Label:      Is Version Of
               Definition: The described resource is a version, edition, or adaptation
                           of the referenced resource. Changes in version imply substantive
                           changes in content rather than differences in format.
               Term Type:  Element Refinement
               Terms Qlfd: Relation
               Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=hasVersion>
               Name:       hasVersion
               URI:        http://purl.org/dc/terms/hasVersion
               Label:      Has Version
               Definition: The described resource has a version, edition, or adaptation,
                           namely, the referenced resource.
               Term Type:  Element Refinement
               Terms Qlfd: Relation
               Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=isReplacedBy>
               Name:       isReplacedBy
               URI:        http://purl.org/dc/terms/isReplacedBy
               Label:      Is Replaced By
               Definition: The described resource is supplanted, displaced, or
                           superceded by the referenced resource.
               Term Type:  Element Refinement
               Terms Qlfd: Relation
               Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=replaces>
               Name:       replaces
               URI:        http://purl.org/dc/terms/replaces
               Label:      Replaces
               Definition: The described resource supplants, displaces, or supersedes
                           the referenced resource.
               Term Type:  Element Refinement
               Terms Qlfd: Relation
               Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

          <a name=isRequiredBy>
               Name:       isRequiredBy
               URI:        http://purl.org/dc/terms/isRequiredBy
               Label:      Is Required By
```

```
              Definition: The described resource is required by the referenced resource,
                          either physically or logically.
              Term Type:  Element Refinement
              Terms Qlfd: Relation
              Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

       <a name=requires>
              Name:        requires
              URI:         http://purl.org/dc/terms/requires
              Label:       Requires
              Definition:  The described resource requires the referenced resource to
                           support its function, delivery, or coherence of content.
              Term Type:   Element Refinement
              Terms Qlfd:  Relation
              Decision:    http://dublincore.org/usage/decisions/index.shtml#2000.01

       <a name=isPartOf>
              Name:        isPartOf
              URI:         http://purl.org/dc/terms/isPartOf
              Label:       Is Part Of
              Definition:  The described resource is a physical or logical part of the
                           referenced resource.
              Term Type:   Element Refinement
              Terms Qlfd:  Relation
              Decision:    http://dublincore.org/usage/decisions/index.shtml#2000.01

       <a name=hasPart>
              Name:        hasPart
              URI:         http://purl.org/dc/terms/hasPart
              Label:       Has Part
              Definition:  The described resource includes the referenced resource either
                           physically or logically.
              Term Type:   Element Refinement
              Terms Qlfd:  Relation
              Decision:    http://dublincore.org/usage/decisions/index.shtml#2000.01

       <a name=isReferencedBy>
              Name:        isReferencedBy
              URI:         http://purl.org/dc/terms/isReferencedBy
              Label:       Is Referenced By
              Definition:  The described resource is referenced, cited, or otherwise
                           pointed to by the referenced resource.
              Term Type:   Element Refinement
              Terms Qlfd:  Relation
              Decision:    http://dublincore.org/usage/decisions/index.shtml#2000.01

       <a name=references>
              Name:        references
              URI:         http://purl.org/dc/terms/references
              Label:       References
              Definition:  The described resource references, cites, or otherwise points
                           to the referenced resource.
              Term Type:   Element Refinement
              Terms Qlfd:  Relation
              Decision:    http://dublincore.org/usage/decisions/index.shtml#2000.01

       <a name=isFormatOf>
              Name:        isFormatOf
              URI:         http://purl.org/dc/terms/isFormatOf
              Label:       Is Format Of
              Definition:  The described resource is the same intellectual content of
                           the referenced resource, but presented in another format.
              Term Type:   Element Refinement
              Terms Qlfd:  Relation
              Decision:    http://dublincore.org/usage/decisions/index.shtml#2000.01
```

```
        <a name=hasFormat>
            Name:       hasFormat
            URI:        http://purl.org/dc/terms/hasFormat
            Label:      Has Format
            Definition: The described resource pre-existed the referenced resource,
                        which is essentially the same intellectual content presented
                        in another format.
            Term Type:  Element Refinement
            Terms Qlfd: Relation
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=conformsTo>
            Name:       conformsTo
            URI:        http://purl.org/dc/terms/conformsTo
            Label:      ConformsTo
            Definition: A reference to an established standard to which the resource
conforms.
            Term Type:  Element Refinement
            Terms Qlfd: Relation
            Status:     Domain-Specific
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2001.01

        <a name=spatial>
            Name:       spatial
            URI:        http://purl.org/dc/terms/spatial
            Label:      Spatial
            Definition: Spatial characteristics of the intellectual content of the resoure.
            Term Type:  Element Refinement
            Terms Qlfd: Coverage

        <a name=temporal>
            Name:       temporal
            URI:        http://purl.org/dc/terms/temporal
            Label:      Temporal
            Definition: Temporal characteristics of the intellectual content of the
resource.
            Term Type:  Element Refinement
            Terms Qlfd: Coverage
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=mediator>
            Name:       mediator
            URI:        http://purl.org/dc/terms/mediator
            Label:      Mediator
            Definition: A class of entity that mediates access to the
                        resource and for whom the resource is intended or useful.
            Comment:    The audience for a resource in the education/training
                        domain are of two basic classes: (1) an ultimate beneficiary of
                        the resource (usually a student or trainee), and (2) frequently,
                        an entity that mediates access to the resource (usually a
                        teacher or trainer).  The mediator element refinement represents
                        the second of these two classes.
            Term Type:  Element Refinement
            Terms Qlfd: Audience
            Status:     Domain-Specific
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2001.01

        --------------------------------------------------------------------------
        IV.  Encoding Schemes
        --------------------------------------------------------------------------

        <a name=LCSH>
            Name:       LCSH
            URI:        http://purl.org/dc/terms/LCSH
            Label:      LCSH
            Definition: Library of Congress Subject Headings
```

```
                Term Type:  Encoding Scheme
                Terms Qlfd: Subject
                Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=MESH>
            Name:       MESH
            URI:        http://purl.org/dc/terms/MESH
            Label:      MeSH
            Definition: Medical Subject Headings
            See also:   http://www.nlm.nih.gov/mesh/meshhome.html
            Term Type:  Encoding Scheme
            Terms Qlfd: Subject
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=DDC>
            Name:       DDC
            URI:        http://purl.org/dc/terms/DDC
            Label:      DDC
            Definition: Dewey Decimal Classification
            See also:   http://www.oclc.org/dewey/index.htm
            Term Type:  Encoding Scheme
            Terms Qlfd: Subject
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=LCC>
            Name:       LCC
            URI:        http://purl.org/dc/terms/LCC
            Label:      LCC
            Definition: Library of Congress Classification
            See also:   http://lcweb.loc.gov/catdir/cpso/lcco/lcco.html
            Term Type:  Encoding Scheme
            Terms Qlfd: Subject
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=UDC>
            Name:       UDC
            URI:        http://purl.org/dc/terms/UDC
            Label:      UDC
            Definition: Universal Decimal Classification
            See also:   http://www.udcc.org/
            Term Type:  Encoding Scheme
            Terms Qlfd: Subject
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=Period>
            Name:       Period
            URI:        http://purl.org/dc/terms/Period
            Label:      DCMI Period
            Definition: A specification of the limits of a time interval.
            See also:   http://dublincore.org/documents/dcmi-period/
            Term Type:  Encoding Scheme
            Terms Qlfd: Date
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=W3CDTF>
            Name:       W3CDTF
            URI:        http://purl.org/dc/terms/W3CDTF
            Label:      W3C-DTF
            Definition: W3C Encoding rules for dates and times - a profile based on ISO
8601
            See also:   http://www.w3.org/TR/NOTE-datetime
            Term Type:  Encoding Scheme
            Terms Qlfd: Date
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

        <a name=DCMIType>
```

```
            Name:       DCMIType
            URI:        http://purl.org/dc/terms/DCMIType
            Label:      DCMI Type Vocabulary
            Definition: A list of types used to categorize the nature or genre
                        of the content of the resource.
            See also:   http://dublincore.org/documents/dcmi-type-vocabulary/
            Term Type:  Encoding Scheme
            Terms Qlfd: Type
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

     <a name=IMT>
            Name:       IMT
            URI:        http://purl.org/dc/terms/IMT
            Label:      IMT
            Definition: The Internet media type of the resource.
            See also:   http://www.isi.edu/in-notes/iana/assignments/media-types/media-
     types
            Term Type:  Encoding Schemes
            Terms Qlfd: Format
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

     <a name=URI>
            Name:       URI
            URI:        http://purl.org/dc/terms/URI
            Label:      URI
            Definition: A URI Uniform Resource Identifier
            See also:   http://www.ietf.org/rfc/rfc2396.txt
            Term Type:  Encoding Scheme
            Terms Qlfd: Identifier
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

     <a name=ISO639-2>
            Name:       ISO639-2
            URI:        http://purl.org/dc/terms/ISO639-2
            Label:      ISO 639-2
            Definition: ISO 639-2: Codes for the representation of names of languages.
            See also:   http://lcweb.loc.gov/standards/iso639-2/langhome.html
            Term Type:  Encoding Scheme
            Terms Qlfd: Language
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

     <a name=RFC1766>
            Name:       RFC1766
            URI:        http://purl.org/dc/terms/RFC1766
            Label:      RFC 1766
            Definition: Internet RFC 1766 'Tags for the identification of Language'
                        specifies a two letter code taken from ISO 639, followed
                        optionally by a two letter country code taken from ISO 3166.
            See Also:   http://www.ietf.org/rfc/rfc1766.txt
            Term Type:  Encoding Scheme
            Terms Qlfd: Language
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

     <a name=URI>
            Name:       URI
            URI:        http://purl.org/dc/terms/URI
            Label:      URI
            Definition: A URI Uniform Resource Identifier
            See also:   http://www.ietf.org/rfc/rfc2396.txt
            Term Type:  Encoding Scheme
            Terms Qlfd: Relation
            Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

     <a name=URI>
            Name:       URI
            URI:        http://purl.org/dc/terms/URI
```

```
        Label:      URI
        Definition: A URI Uniform Resource Identifier
        See also:   http://www.ietf.org/rfc/rfc2396.txt
        Term Type:  Encoding Scheme
        Terms Qlfd: Source
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2001.03
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

    <a name=Point>
        Name:       Point
        URI:        http://purl.org/dc/terms/Point
        Label:      DCMI Point
        Definition: The DCMI Point identifies a point in space using its geographic
    coordinates.
        See also:   http://dublincore.org/documents/dcmi-point/
        Term Type:  Encoding Scheme
        Terms Qlfd: Coverage/Spatial
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

    <a name=ISO3166>
        Name:       ISO3166
        URI:        http://purl.org/dc/terms/ISO3166
        Label:      ISO 3166
        Definition: ISO 3166 Codes for the representation of names of countries
        See also:   http://www.din.de/gremien/nas/nabd/iso3166ma/codlstp1/index.html
        Term Type:  Encoding Scheme
        Terms Qlfd: Coverage/Spatial
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

    <a name=Box>
        Name:       Box
        URI:        http://purl.org/dc/terms/Box
        Label:      DCMI Box
        Definition: The DCMI Box identifies a region of space using its geographic
    limits.
        See also:   http://dublincore.org/documents/dcmi-box/
        Term Type:  Encoding Scheme
        Terms Qlfd: Coverage/Spatial
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

    <a name=TGN>
        Name:       TGN
        URI:        http://purl.org/dc/terms/TGN
        Label:      TGN
        Definition: The Getty Thesaurus of Geographic Names
        See also:   http://shiva.pub.getty.edu/tgn_browser/
        Term Type:  Encoding Scheme
        Terms Qlfd: Coverage/Spatial
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

    <a name=Period>
        Name:       Period
        URI:        http://purl.org/dc/terms/Period
        Label:      DCMI Period
        Definition: A specification of the limits of a time interval.
        See also:   http://dublincore.org/documents/dcmi-period/
        Term Type:  Encoding Scheme
        Terms Qlfd: Coverage/Temporal
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01

    <a name=W3CDTF>
        Name:       W3CDTF
        URI:        http://purl.org/dc/terms/W3CDTF
        Label:      W3C-DTF
        Definition: W3C Encoding rules for dates and times - a profile based on ISO
    8601
```

```
        See also:   http://www.w3.org/TR/NOTE-datetime
        Term Type:  Encoding Scheme
        Terms Qlfd: Coverage/Temporal
        Decision:   http://dublincore.org/usage/decisions/index.shtml#2000.01


     -------------------------------------------------------------------------
     References
     -------------------------------------------------------------------------

     [DCT1] Type Vocabulary.
     <http://dublincore.org/documents/dcmi-type-vocabulary/>

     [ISO639] ISO 639 - Codes for the representation of names of languages.
     <http://www.loc.gov/standards/iso639-2/>

     [ISO3166] ISO 3166 - Codes for the representation of names of countries.
     <http://www.iso.org/iso/en/prods-services/iso3166ma/02iso-3166-code-
     lists/index.html>

     [MIME] Internet Media Types.
     <http://www.isi.edu/in-notes/iana/assignments/media-types/media-types>

     [RFC3066] RFC 3066 - Tags for the identification of Languages.
     <http://www.ietf.org/rfc/rfc3066.txt>

     [TGN] Getty Thesaurus of Geographic Names.
     <http://shiva.pub.getty.edu/tgn_browser/>

     [W3CDTF] Date and Time Formats, W3C Note.
     <http://www.w3.org/TR/NOTE-datetime>
```

```
Title:              DCMI Usage Board Meetings - a chronology
Maintainer:         Thomas Baker, Usage Board Chair
Identifier:         http://dublincore.org/usage/meetings/
Latest version:     http://dublincore.org/usage/meetings/
Installed as:       http://dublincore.org/usage/meetings/index.shtml
Date Last Modified: 2002-04-27
Description:
```

This document, periodically updated, provides annotated links to
the agendas and meeting notes of DCMI Usage Board meetings. The
decisions resulting from these meetings are documented at
http://dublincore.org/usage/decisions/.

2002 May 12-13, Bath, UK

Agenda: http://www.gmd.de/People/Thomas.Baker/agenda.html
Meeting notes:

2001 October 22, Tokyo, Japan

Agenda: http://dublincore.org/usage/meetings/2001/10/agenda.shtml
Meeting notes: http://dublincore.org/usage/meetings/2001/10/meeting-notes.shtml
Meeting packet: http://dublincore.org/usage/meetings/2001/10/2001-10-19.dc-
usage.pdf

The Usage Board met at DC2001 in Tokyo to discuss issues of
process (ie, a Web-based fast-track procedure for
registering encoding schemes) and review an extensive
proposal from the DC-Government Working Group.

2001 May 21, Dublin, Ohio, USA

Agenda: http://dublincore.org/usage/meetings/2001/05/index.shtml
Meeting notes: http://dublincore.org/usage/meetings/2001/05/meetingnotes.shtml

At a DCMI meeting in Madeira, February 2001, the Advisory
Committee approved the re-constitution of the old Usage
Committee as a smaller Usage Board, the goal of which would
be to meet twice per year face-to-face and review proposals
for metadata term semantics in a timely, principled, and
well-documented manner. The first meeting of the new Usage
Board was held in May 2001 at OCLC in Dublin, Ohio. The
Board discussed mission and process, an application profile,
changed one definition, and approved three new metadata terms
[1-5].

[1] http://dublincore.org/usage/decisions/index.shtml#2001.05
[2] http://dublincore.org/usage/decisions/index.shtml#2001.04
[3] http://dublincore.org/usage/decisions/index.shtml#2001.03
[4] http://dublincore.org/usage/decisions/index.shtml#2001.02
[5] http://dublincore.org/usage/decisions/index.shtml#2001.01

2000 January through July, DCMI mailing lists

A Usage Committee of twenty-four interested members of the
DCMI Advisory Committee held a discussion over the Web and
approved a set of first set of DCMI Qualifiers [3,6] and a
controlled vocabulary of values for the Type element [5,7].
The discussion, from late 1999 through follow-up in July
2000, is archived on the (now-defunct) Mailbase service [1].
The voting results for individual qualifiers, with review
comments, are archived at DCMI [2]. The set of qualifiers
was issued as a DCMI Recommendation on 11 July [3], as
described in a press release at that time [4].

[1] http://www.mailbase.ac.uk/lists/dc-usage/
[2] http://dublincore.org/usage/meetings/2000/04/

```
[3] http://dublincore.org/usage/documents/2000/07/11/dcmes-qualifiers/
[4] http://dublincore.org/usage/news/communications/pr-20000711.shtml
[5] http://dublincore.org/documents/2000/07/11/dcmi-type-vocabulary/
[6] http://dublincore.org/usage/decisions/index.shtml#2000.01
[7] http://dublincore.org/usage/decisions/index.shtml#2000.02
```

```
Title:              DCMI Metadata Terms - an Overview
Maintainer:         Thomas Baker, Usage Board Chair
Identifier:         http://dublincore.org/usage/terms/
Latest version:     http://dublincore.org/usage/terms/
Installed as:       http://dublincore.org/usage/terms/index.shtml
Date Last Modified: 2002-04-27
```

The DCMI Usage Board currently maintains two sets of metadata
terms:

-- DCMI Elements and Qualifiers
   http://dublincore.org/usage/terms/elements-qualifiers/

-- DCMI Type Vocabulary
   http://dublincore.org/documents/dcmi-type-vocabulary/

The Usage Board is responsible for maintaining these term sets
from a "semantic" point of view. The policies and processes
governing such maintenance are described in a Namespace Policy
[NAMESPACE], the Usage Board's Mission and Principles
[PRINCIPLES], Usage Board Administrative Processes [PROCESS].

DCMI -- the words we use

These foundation documents cited above use a particular jargon:
"DCMI terms" are elements, qualifiers, or terms in controlled
vocabularies maintained by DCMI. Each DCMI term is defined in a
DCMI recommendation and is uniquely identified by a Uniform
Resource Identifier (URI) within a DCMI namespace. A "DCMI
recommendation" is a human-readable document that may define one
or more DCMI terms. A "DCMI namespace" is a collection of DCMI
terms, where each namespace is identified by a URI and each term
is identified by a URI formed from the "name" of a term (e.g.,
title) prefixed by the URI of a DCMI namespace, as in
http://purl.org/dc/elements/1.1/title and
http://purl.org/dc/terms/audience.

A "DCMI term declaration" is the machine-processable
representation of one or more DCMI terms, expressed in a schema
language. The technical specifications of such representations
are within the scope of Usage Board control only to the extent
that alternative machine-processable encodings may have
different semantic implications. As of April 2002, the goal of
DCMI is to make its metadata semantics available for machine
processing in a wide range of XML and Semantic Web applications.

Dublin Core has Elements and Qualifiers. A Dublin Core
"Element" is a property of a resource. A "Qualifier" can be
either an Element Refinement or an Encoding Scheme. An "Element
Refinement" is a term with a narrower meaning with respect to a
particular Element. An "Encoding Scheme" is a pointer to
contextual information that aids in the interpretation of an
element value. A value expressed using an encoding scheme is
usually a term selected from a controlled vocabulary (e.g., a
classification system or set of subject headings) or a string
formatted in accordance with a formal notation (e.g.,
"2000-01-01" as a template for dates).

The DCMI Type Vocabulary provides a general, cross-domain list
of approved terms that may be used as values for the Resource
Type element to identify the genre of a resource. It is
currently the only controlled vocabulary of values maintained by
DCMI.

References

```
[NAMESPACE] http://dublincore.org/documents/dcmi-namespace/
[PRINCIPLES] http://dublincore.org/usage/documents/mission/
[PROCESS] http://dublincore.org/usage/documents/process/
```

```
           Title:              DCMI Usage Board - overview
           Identifier:         http://dublincore.org/usage/
           Installed as:       http://dublincore.org/usage/index.shtml
           Date Last Modified: 2002-04-27
           Description:        The mission of the Usage Board is to ensure an orderly
                               evolution of the metadata vocabularies maintained by
                               DCMI, evaluating proposals for extensions or changes in
                               light of grammatical principle, semantic clarity, and
                               usefulness.

       == DCMI Metadata Terms
          http://dublincore.org/usage/terms/

       == Mission, Principles, and Process
          http://dublincore.org/usage/documents/

       == Usage Board Meetings
          http://dublincore.org/usage/meetings/

       == Decisions
          http://dublincore.org/usage/decisions/

       == News

          2002-04-17: Public comment for proposals to Usage Board
              http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-general&O=A&P=1249
              Public comment is open for these documents until 10 May 2002.

       == Members

          Chair:          Thomas Baker, Fraunhofer-Gesellschaft, Germany
          Members:        Rebecca Guenther, Library of Congress, USA
                          Diane Hillmann, Cornell University, USA
                          Traugott Koch, NetLab, Sweden
                          Haruki Nagata, ULIS, Japan
                          Andy Powell, UKOLN, UK
                          Roland Schwaenzl, University of Osnabrueck, Germany
                          Stuart Sutton, University of Washington, USA
                          DCMI Directorate, ex officio
```

Title:	# DCMI Roadmap for development of Vocabulary Management and Schema Registry Systems
Editor:	Harry Wagner
Editor:	Rachel Heery
Date Issued:	2002-02-18
Identifier:	http://dublincore.org/groups/registry/roadmap-20020117.html
Previous version:	No prior version
Latest version:	http://dublincore.org/groups/registry/roadmap-20020117.html
Status of document:	This is a DCMI Working Draft.
Description of document:	**IMPORTANT: sections 3 and 4 await comment by Usage Board** This document provides high level requirements to inform development of DCMI systems for - managing the evolution of the DCMI Vocabulary - navigating DCMI schemas

1. Introduction

This document derives from prior work within the DCMI Registry Working Group related to the registry prototypes and their functional requirements. This document presents a Roadmap for further work on the registry, intended to help achieve the goal of an operational service by 3rd quarter 2002.

Following discussions and meetings with other working groups at DC2001 in Tokyo, a decision was made to consider future development of two systems: a DCMI Vocabulary Management System and a DCMI Registry.This was based on differing requirements emerging from the Usage Board (with a focus on managing evolution and administration of DCMI terms) as opposed to people and software agents (with focus on seeking information about DCMI terms).

Information on discussions and decisions that form background to this document are available from the Registry working group home page and the Registry working group mailing list. Current Registry Prototypes can also be accessed.

2. Overview

The following diagram shows the components required to manage the DCMI vocabulary and to provide registry service to human users and applications. In addition the relationships between components are identified. The remaining part of the document gives a high level view of the functionality of each component.
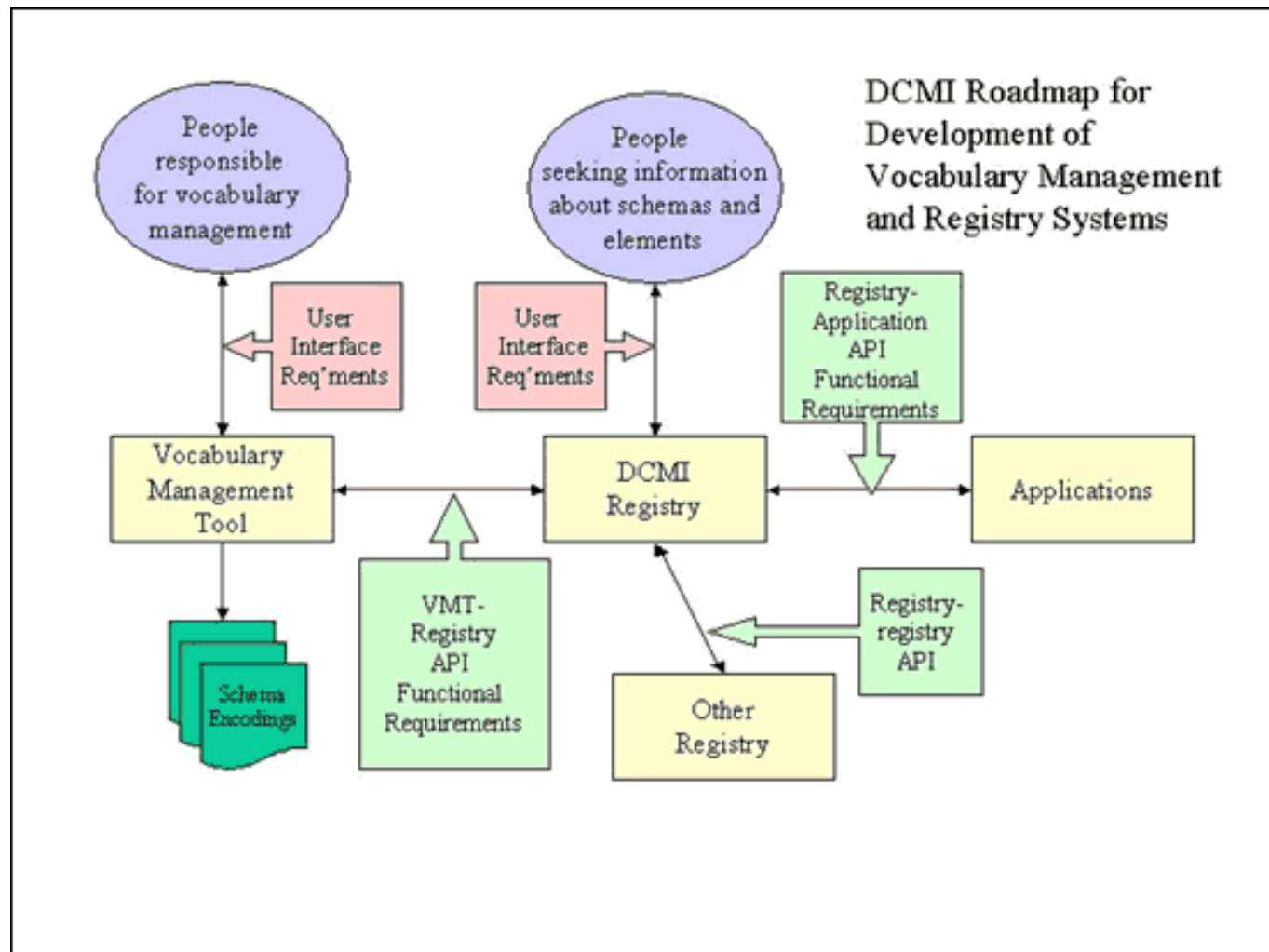
3. Vocabulary Management System

Important: this section awaits comment by Usage Board

Overall aim: To assist the Usage Board in the management and evolution of the DC vocabulary

User Interface requirements

3.1 To provide authoritative description of all past and present DCMI terms

3.2 To provide structured view (according to DCMI 'grammar' of elements, element refinements and schemes) of all DCMI terms

3.3 To provide means to manage process of approving new terms

3.4 To provide a secure Web interface for adding new terms, and managing term revisions, that have been approved by the DC Usage Board.

3.5 To provide historical audit of all changes to status and description of terms

3.6 To manage multilingual descriptions of DC terms

3.7 To identify DCMI recommended names for schemes. In order to facilitate this a means for registration of schemes by remote third parties will be required, and means for the Usage Board to manage approval of the data registered.

4. VMT output in other encodings

Important: this section awaits comment by Usage Board

4.1 To provide authoritative outputs of DCMI vocabulary in various formats as required (e.g. RDF schemas, XML schemas, text versions of descriptions of terms, etc).

5. VMT-Registry API

Important: this section awaits comment by Usage Board

5.1 To provide output of authoritative description of all current DCMI terms in format suitable for import to Registry (currently this would be by means of schemas in RDFS).

5.2 To ensure RDFS schemas expressing the DCMI vocabulary indicate the structure and relationship between terms (reflecting the DC 'grammar' of elements, element refinements, controlled vocabularies and schemes). The schemas will also need to include all information required by people seeking information about terms i.e. Name, Label, Registration Authority, Language, Definition, Comment.

5.3 To provide regular updates of the schemas.

6. DCMI Registry

Overall aim: The DCMI registry is designed to provide an added value 'information service' about DCMI vocabulary over and above a simple text description of terms or a human readable text schema. The intention is to assist humans and software to obtain reliable trusted information about DCMI terms.

Users: We have identified four categories of users of the registry

- information seekers : those looking for up to date information on the semantics of DCMI terms. these might typically be metadata creators, information specialists implementing new systems and looking for appropriate terms for their schemas, librarians, etc. There will be novice and expert users.
- software using the regsitry to obtain information about DCMI terms
- contributors: those who are authorised to import schemas
- system administrator

User Interface requirements

6.1 To provide a user-friendly interface for novice and expert users. For the novice user all RDF jargon needs to be replaced with more accessible terminology.

6.2 To provide comprehensive information about DC terms, the relationship between those terms, and their usage. This information should be available to all individuals (implementors of resource discovery systems, information professionals, DC Usage Board, etc.) seeking information about the DCMI.

6.3 To provide complete listings of particular categories of terms e.g. element refinements, elements, schemes, schemes associated with particular elements, controlled vocabularies; as well as human readable version of DCMI schemas:

- http://purl.org/dc/elements/1.1/
- http://purl.org/dc/terms/
- http://purl.org/dc/dcmitype/

- To provide a multilingual interface (user interface dialogue, drop down boxes etc to be translated).
- To provide multilingual descriptions of DCMI terms.
- To provide links to annotations, guidelines and other relevant documents.
- To provide access to authoritative mappings and crosswalks between DCMI and other vocabularies.

7. Registry-Application API Functional Requirements

This API is intended to enable applications to gather information about DCMI schemas to support their functionality. It is intended to reduce the need for individual appliccations to store locally information about schemas. This will assist applications to stay up-to-date regarding the schemas they use, and will enable generic applications to infuse schemas in order to provide functionality customised by the user's choice of schema. An example of such an application might be metadata creation tool, query tool, user profiling tool.

7.1 To provide a machine-readable interface for navigating and searching terms.

7.2 Support for an application to query the registry, select or contruct a schema and import the resulting schema. The resulting imported schema might be an existing DCMI schema, a sub-set or super-set of an existing DCMI schema, or an expression of a DCMI application profile e.g. DC-Education profile, DC-Government profile.

7.3 To provide access to authoritative mappings and crosswalks between DC and other vocabularies.

8. Registry to Registry API

In future it is expected that the DCMI registry will interact with other registries in order to enable

a distributed registry service model. Details of the relationsships between registries is not developed here, but might be expected to enable exchange of schemas between registries and querying between registries.

9. Definitions of terms in this document

DCMI term: A DCMI term is a DCMI element, a DCMI qualifier or term from a DCMI-maintained controlled vocabulary. Each DCMI term is defined in a DCMI recommendation and is identified by a Uniform Resource Identifier (URI) within a DCMI namespace

DCMI namespace: A DCMI namespace is a collection of DCMI terms. Each DCMI namespace is identified by a URI.

DCMI recommendation: A DCMI recommendation is a human-readable document that may define one or more DCMI terms.

Term declaration: A term declaration is the machine-processable representation of one or more terms, expressed in a schema language.

Application profile : An application profile is a term declaration describing a set of terms used by a particular application, implementation or 'sector'. These terms will have already been identified by a unique namespace which may or may not be a DCMI namespace. These terms will be selected from already existing schema as optimal for use within a particular implementaion or sector e.g. educational applications, library applications or even a particular project application.

10. Relevant documents:

Dublin Core Metadata Element Set, Version 1.1: Reference Description
http://www.dublincore.org/documents/dces/

Dublin Core Qualifiers
http://www.dublincore.org/documents/dcmes-qualifiers/

Controlled vocabularies:
DCMI Box Encoding Scheme: Specification of the spatial limits of a place, and methods for encoding this in a text string.
http://dublincore.org/documents/2000/07/28/dcmi-box/

DCMI Period Encoding Scheme: specification of the limits of a time interval, and methods for encoding this in a text string.
http://dublincore.org/documents/2000/07/28/dcmi-period/%20Draft%20RDF%20schemas

DCMI Point Encoding Scheme: a point location in space, and methods for encoding this in a text string
http://dublincore.org/documents/2000/07/28/dcmi-point/

Draft DCMI schemas:

http://dublincore.org/2001/08/14/dces#

http://dublincore.org/2001/08/14/dcq#

http://dublincore.org/2001/08/14/dctype#

ABOUT THE INITIATIVE   DOCUMENTS   GROUPS   RESOURCES

DCMI NEWS   TOOLS AND SOFTWARE   MEETINGS AND PRESENTATIONS   PROJECTS

Dublin Core Metadata Initiative

Home > Usage > Documents > Mission >

Title:	**Misson and Principles**
Creator:	Tom Baker, thomas.baker@gmd.de
Date Issued:	2001-06-28
Identifier:	http://dublincore.org/usage/documents/2001/06/28/mission/
Replaces:	Not Applicable
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/usage/documents/mission/
Status of document:	DCMI Usage Board Recommendation
Description of document:	Abstract.

MISSION

The mission of the DCMI Usage Board is to ensure an orderly evolution of metadata vocabularies. The Usage Board evaluates proposed vocabulary terms (or changes to existing terms) in light of grammatical principle, semantic clarity, and overlap with existing terms. To proposals that are accepted it assigns a specific status. The Usage Committee strives for consensus, justifying its decisions and interpretations in terms both of principle and of empirical practice.

PUBLICATION POLICY

The Usage Board makes available its proceedings and decisions in a publicly available space on the DCMI Web site.

PROCESS

The Usage Board process is described in a separate document [1].

SCOPE

The scope of the Usage Board is the Dublin Core Metadata Element Set [2], plus additional vocabulary terms deemed useful for discovering resources across domains.

GRAMMAR

Dublin Core may be seen as a small language for making a particular class of statements about resources. Like natural languages, it has a vocabulary of word-like terms, the two classes of which -- elements and qualifiers -- function within statements like nouns and adjectives; and it has a syntax for arranging elements and qualifiers into statements according to a simple pattern. Optional qualifiers may make the meaning of a property more definite, as in "Resource has dc:date dcq:revised '2000-06-13'." This grammar is described more fully in [3].

VOCABULARY TERMS IN GENERAL

Vocabulary terms in Dublin Core refer to elements, qualifiers, or terms in controlled vocabularies maintained by DCMI. Vocabulary terms are uniquely defined in namespaces [4].

Strictly speaking, a Dublin Core element or qualifier is a unique identifier formed by a name (e.g., title) prefixed by the URI of the namespace in which it is defined, as in http://purl.org/dc/elements/1.1/title. In this context, a namespace is a vocabulary that has been formally published, usually on the Web; it describes elements and qualifiers with natural-language labels, definitions, and other relevant documentation.

ELEMENTS

An element is a property of a resource.

QUALIFIERS

Qualifiers modify the properties of Dublin Core statements by specifying, in the manner of natural-language adjectives, "what kind" of subject, date, or relation. Qualifiers currently fall into two classes:

-- Element Refinement. An element refinement is a qualifier that makes the meaning of an element narrower or more specific. A refined element shares the meaning of the unqualified element, but with a more restricted scope. A client that does not understand a

specific element refinement term should be able to ignore the qualifier and treat the metadata value as if it were an unqualified (broader) element. The definitions of element refinement terms for qualifiers must be publicly available.

-- Encoding Scheme. Encoding schemes are pointers to contextual information or parsing rules that aid in the interpretation of an element value. These schemes include controlled vocabularies and formal notations or parsing rules. A value expressed using an encoding scheme will thus be a token selected from a controlled vocabulary (e.g., a term from a classification system or set of subject headings) or a string formatted in accordance with a formal notation (e.g., "2000-01-01" as the standard expression of a date). If an encoding scheme is not understood by a client or agent, the value may still be useful to a human reader. The definitive
description of an encoding scheme for qualifiers must be clearly identified and available for public use.

DUMB-DOWN PRINCIPLE

The qualification of Dublin Core properties is guided by a rule known colloquially as the Dumb-Down Principle. According to this rule, a client should be able to ignore any qualifier and use the value as if it were unqualified. While this may result in some loss of specificity, the remaining element value (minus the qualifier) must continue to be generally correct and useful for discovery. Qualification is therefore supposed only to refine, not extend the semantic scope of a property.

APPROPRIATE VALUES

Best practice for a particular element or qualifier may vary by context. Definitions may provide some guidance; other information may be found in the User's Guide [5].

REFERENCES

[1] http://dublincore.org/usage/documents/2001/06/27/process/
[2] http://dublincore.org/documents/dces/
[3] http://dublincore.org/usage/meetings/2001/05/grammar.htm
[4] http://dublincore.org/documents/dcmi-namespace/
[5] http://dublincore.org/documents/usageguide/

Metadata associated with this resource:
http://dublincore.org/usage/documents/mission/index.shtml.rdf

Title:	# Dublin Core Usage Board Administrative Processes
Creator:	Diane I. Hillmann, dih1@cornell.edu
Date Issued:	2002-03-20
Identifier:	http://dublincore.org/usage/documents/2002/03/20/process/
Replaces:	http://dublincore.org/usage/documents/2001/06/27/process/
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/usage/documents/process/
Description of document:	This document describes the rules and regulations of the DCMI Usage Board.

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- 1. Usage Board Membership
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- 4. Communication and Documentation

Part 2: Proposals for Recommendations and Registrations: Form and Process

- 5. Proposals for Recommendations
- 6. Proposals for Registration of Encoding Schemes and Vocabularies
- 7. Proposals for Registration of Application Profiles [Under development]

Part 3: Revision of UB Administrative Processes

- 8. [Process for Revision of UB Administrative Processes](#) [Under development]

Usage Board: Overview, Meetings, Documentation

1. Usage Board Membership [top]

- 1.1. The UB will consist of at least seven and no more than eleven people (nine is ideal) appointed by the DCMI Directorate.
- 1.2. Usage Board member terms shall be for two years, renewable once. Initial appointments will be made so as to stagger terms.
- 1.3. Members should be selected based on the following criteria:
    - 1.3.1. Knowledgeable concerning the development history and purpose of the DC element set and its relationship to the metadata world at large;
    - 1.3.2. Related to a metadata community relevant to DCMI;
    - 1.3.3. Willing and able to commit time and energy to the functions of the UB;
    - 1.3.4. Able to communicate verbally and in writing in English well enough to prepare documents and discuss complex issues in a group setting;
    - 1.3.5. Geographic and domain distribution of members is relevant but will not override other criteria.
- 1.4. The UB Chair will be appointed from one of the membership by the DCMI Directorate. The term of the chair shall be for two years, renewable once.
- 1.5. For internal communication the UB uses the closed mailing list dc-usage@jiscmail.ac.uk. The messages are archived and publicly available at http://www.jiscmail.ac.uk/lists/dc-usage.html.

2. Meetings [top]

- 2.1. Scheduling
    - 2.1.1. Meetings should be at least twice a year.
        - 2.1.1.1. One meeting should be scheduled during the annual DC general workshop/conference.
        - 2.1.1.2. The second should be scheduled at a different time of the year, preferably close to other conferences, so as to make attendance convenient for as many members as possible.
        - 2.1.1.3. Scheduling should be done far enough in advance so that as many members as possible may be present.
- 2.2. Funding for meetings should be supported as much as possible by DCMI.

- 2.3. Attendance by members
    - 2.3.1. Members must attend at least one meeting in a given year to maintain membership in good standing.
    - 2.3.2. Members who miss two meetings in succession may be replaced by the DC Directorate.
- 2.4. Attendance by others
    - 2.4.1. Attendance at UB meetings by other than the UB is by invitation.
        - 2.4.1.1. Interested attendees should request an invitation via the UB Chair or the Managing Director.
    - 2.4.2. Participation in discussion of proposals by any interested parties is encouraged.
- 2.5. Agenda preparation and distribution
    - 2.5.1. The UB chair is responsible for preparing the meeting agendas and assigning shepherds to proposals.
    - 2.5.2. Agenda items shall include the name and email address of the UB member responsible for shepherding the proposal through the UB process.
    - 2.5.3. Agendas shall be available on the UB page of the DCMI website.
- 2.6. Meeting minutes and decisions
    - 2.6.1. Minutes of discussion points and decisions shall be drafted by a note-taker and posted to the DCMI website.
    - 2.6.2. Important decisions will be assigned a number for citation purposes and documented on the DCMI website.

3. Categories of Usage Board Decisions [top]

- 3.1. Recommended
    - 3.1.1. CROSS-DOMAIN. Terms of general use and broad interest across domains.
    - 3.1.2. DOMAIN-SPECIFIC. Terms of interest to a limited domain or set of domains.
    - 3.1.3. OBSOLETE. For terms that have been superseded, deprecated, or rendered obsolete. Such terms will remain in the registry for use in interpreting legacy metadata.
- 3.2. Registered
    - 3.2.1. Used for schemes, application profiles, and translations for which the DCMI provides information but not necessarily specific recommendation.

4. Documentation [top]

- 4.2. Documentation
    - 4.2.1. Important documents like UB membership, meeting agendas, meeting minutes, proposals to the UB, voting or decision documents and results (if not part of minutes) and similar are archived as separate documents in an area of the DCMI web site devoted to the UB.
    - 4.2.2. Structure of the UB website is similar to a working group page with an issues, forums and resources section. If necessary, an UB internal

section can be password protected.

- ❍ 4.2.3. Historic documents relevant to the UB work, like voting proposals and results from the first DC Qualifier voting will be archived at the same page.
- ❍ 4.2.4. Results of the UB work which take the form of official DCMI documents (working drafts, proposed recommendations and recommendations) are made available and archived at: http://dublincore.org/documents/ as all the other similar documents.
- ❍ 4.2.5. The UB page maintains links to all XML/RDF schemas of UB-maintained namespaces held on the DCMI Web site.

Proposals for Recommendations and Registrations: Form and Process

5. Proposals for Recommendations [top]

- 5.1. Sources of proposals
  - ❍ 5.1.1. DCMI working groups
    - 5.1.1.1. Existing working groups
    - 5.1.1.2. Working groups established for the purpose of developing proposals
  - ❍ 5.1.2. Metadata implementors
  - ❍ 5.1.3. UB itself
- 5.2. Requirements for proposals for "Recommended" status
  - ❍ 5.2.1. To be supplied by the proposers (see table below):

Proposal Requirements Table

Name	A suggested unique token for use in encodings
Label	A suggested human-readable label for the proposed term
Definition	The definition of the term
Comment	Information concerning the possible application of the proposed term
Examples	Examples of use of the proposed term, making clear what type of literal values are expected
Type of term	Is the proposed term an "element," or an "element refinement" (as defined in http://dublincore.org/usage/documents/mission.shtml) [NOTE: Encoding schemes will be registered using a separate process]

Term qualified	If the proposed term is a element refinemen, which term does it qualify?
Why needed	A justification of the need for the proposed term
Proposed status	Is the term proposed as Domain-Specific or Cross-Domain?
Related DCMI terms	A discussion of possible overlap with existing terms
Related non-DCMI terms	An annotated listing of related terms in non-DCMI metadata vocabularies
Impact on applications	An annotated listing of existing applications that could be affected by recognition of this term
About the proposers	A pointer to a description, in standard form (to be specified) of the working group or organization putting forward the proposal: its scope, aims, a brief history, current status, and a pointer to archives

- 5.2.2. To be supplied by the UB shepherd:
  - 5.2.2.1. A summary history of the post-announcement discussion
- 5.3. Guidelines for proposal developers
  The following criteria are offered as guidelines for working groups that are developing a proposal -- they reflect criteria that the Usage Board will use in its decision-making. They do not constitute further requirements for the formal documentation of a proposal.
  - 5.3.1. Criteria for evaluating a term proposal
    - 5.3.1.1. Clarity
      - 5.3.1.1.1. Can the term be clearly defined?
      - 5.3.1.1.2. Can the semantics of the proposed element or element qualifier be expressed precisely, unambiguously, and briefly?
    - 5.3.2. Practicality
      - 5.3.2.1. Is the term practical?
      - 5.3.2.2. How difficult would it be for people creating metadata to comprehend the semantics of the proposed element or element qualifier and to apply it reasonably in the description of resources?
    - 5.3.3. Placement
      - 5.3.3.1. Does the term refine an existing element?
      - 5.3.3.2. If the proposed term is an element, can it reasonably

> > be handled as effectively as an element or value qualifier for an existing element?
> >
> > - 5.3.3.3. Are there alternative ways of implementing the term? Within the conceptual framework of the Dublin Core Element Set (i.e., element/element qualifiers and value/value qualifiers), are there alternative ways to achieve the ends sought?
>
> - 5.3.4. Needs
>   - 5.3.4.1. Is there a clear requirement in existing implementations for the term in support of resource discovery?
>   - 5.3.4.2. Is there a demonstrated need for the proposed element, element qualifier, or value qualifier?
>   - 5.3.4.3. Are there existing implementations or controlled vocabularies, etc., supporting the term?
> - 5.3.5. Fit with other elements/qualifiers
>   - 5.3.5.1. Follows existing principles of qualification
>   - 5.3.5.2. Is well-formed
>   - 5.3.5.3. Does not conflict with or create ambiguity with regard to existing elements, or qualifiers
>   - 5.3.5.4. Does not create problems for existing legacy implementations if those implementations have followed recommended practice
>
> ○ 5.5. Decision tree for assessing the need for a new term

Decision Tree Table

Condition 1:	Can the community of practice's need be solved with a value qualifier (i.e., through a domain-specific vocabulary) for an existing DCMI element or element qualifier?	If so, do that; else …
Condition 2:	Can the community of practice's need be solved through an application profile that references an element or element qualifier from an existing and recognized non-DCMI namespace?	If so, do that; else …
Condition 3:	Can the community of practice's need be solved with a new domain-specific qualifier for an existing DCMI element?	If so, do that; else …

		Create a new domain-specific DCMI element (and, if necessary, element and value qualifiers) to meet community of practice's need.	
Condition 4:			

- 5.6. Process for Moving Proposals
  - 5.6.1. Pre-announcement process
    - 5.6.1.1. Proposal is received by DCMI Managing Director or UB Chair.
    - 5.6.1.2. Proposal is given preliminary review for completeness by DCMI Managing Director and UB Chair.
    - 5.6.1.3. If complete and no revisions needed, proposal is circulated to UB members and announced for public comment. by the Managing Director.
    - 5.6.1.4. If incomplete or revisions needed, proposal is returned to originator, with request for revision or additional information.
  - 5.6.2. Announcements
    - 5.6.2.1. Announcements of comment period for proposals to be discussed by the UB shall be made on the DC-general list and other relevant lists.
    - 5.6.2.2. Announcements of proposals shall be made by the DCMI Managing Director.
    - 5.6.2.3. Announcements will include:
      - 5.6.2.3.1. Links to relevant information to be considered with the proposal
      - 5.6.2.3.2. Relevant deadlines for comments
      - 5.6.2.3.3. Addresses for comment submission
      - 5.6.2.3.4. Information about UB meeting at which the proposal will be discussed, including how to request an invitation to participate
      - 5.6.2.3.5. Name and contact information for the assigned shepherd
  - 5.6.3. Draft Proposal for "Recommended status"--Communication Responsibility Table

What	Where	Who	Comment
Proposal draft posted	WG list, DC-General	WG Chair	
Proposal added to DC-UB agenda	DC-UB Website, DC-UB list	DC-UB Chair	Should this also be announced to WG?

Proposal announced for public comment	DC-General	DCMI Managing Director	
Usage Board Outcome	DC-General	DCMI Managing Director	
Scheme submission	DC-UB List	[Web Team Submission Tool]	
Scheme registration	DC-UB List	[Web Team Submission Tool]	Shepherd may announce to WG list
Digest of scheme registrations	DC-General	DC-UB chair	Possibly instead by Makx?

- ❍ 5.6.3. Shepherds
    - ■ 5.6.3.1. Each proposal shall be assigned a shepherd by the UB chair from among the UB membership.
    - ■ 5.6.3.2. Shepherds should have knowledge of the proposal issues or be connected to the WG originating the proposal.
    - ■ 5.6.3.3. Responsibilities
        - ■ 5.6.3.3.1. Monitor discussion on relevant lists (shepherds should be members of the relevant DC WG list during the time of consideration of a proposal).
        - ■ 5.6.3.3.2. Summarize the comment period discussion and points of contention of the proposal for the UB, either verbally at the meeting or in writing prior to the meeting (preferred).
        - ■ 5.6.3.3.3. Serve as liaison to the relevant WG or community during the time the proposal is under discussion and after a decision has been made.
        - ■ 5.6.3.3.4. Recommend to the UB any further action after a decision has been made on the proposal.
        - ■ 5.6.3.3.5. Prepare registration information for the DCMI Web Team.
        - ■ 5.6.3.3.6. Prepare draft of UB official decision on the proposal for review and approval by the UB.
- ❍ 5.6.4. Comment period
    - ■ 5.6.4.1. Comment period on proposals should be managed on the DC-General list.
    - ■ 5.6.4.2. Comment periods should be at least one month.
    - ■ 5.6.4.3. Public discussions of UB related issues during public comment periods should take place on DC-GENERAL or other working group mailing lists as specified in the announcement.

- ❍ 5.6.5. Voting
  - ■ 5.6.5.1. Voting shall be limited to scheduled meetings and conference calls.
  - ■ 5.6.5.2. Voting shall be limited to UB members present at the meeting or conference call and able to participate in the discussion.
  - ■ 5.6.5.3. UB members who cannot be present may present their arguments for or against a proposal in writing prior to a meeting (this shall not constitute a vote).
  - ■ 5.6.5.4. UB members who cannot be present may explore other options with the chair, if they cannot be present for an important vote. In all cases, a vote may not be cast by a member who is not present, either actually or virtually, for the relevant discussion.
  - ■ 5.6.5.5. Consensus is achieved if no more than one UB member objects to a proposal.

- 5.7. Registration of UB Decisions on Proposals

  - 5.7.1. A document explaining the UB decision regarding a proposal will be written in a timely fashion by the shepherd and approved by the UB.
    - ❍ 5.7.1.1. The decision will include brief statements of recommendations being issued and detailed explanations of UB decisions not to issue recommendations.
    - ❍ 5.7.1.2. UB decisions will be in a form determined by the UB and numbered consecutively for the purpose of citation.
    - ❍ 5.7.1.3. The DCMI Web Team will publish UB decisions in the Documents section of the DCMI Web site in a category named DCMI Usage Board Decisions.
  - 5.7.2. Recommended terms will be registered by the shepherd who was responsible for moving the proposal through the UB process.
    - ❍ 5.7.2.1. The shepherd will complete a web form transferring the relevant information to the DCMI Web Team for inclusion into the Registry.
    - ❍ 5.7.2.2. The DCMI Web Team will report to the UB list when registration has been completed.

6. Proposals for Registration of Encoding Schemes and Vocabularies [top]

- 6.1 Submissions of new encoding schemes and vocabularies will be received on the DC-UB list via a web form
- 6.2. DC UB members will "claim" responsibility to shepherd submissions based on:
  - ❍ 6.2.1. Their knowledge of a particular scheme or vocabulary
  - ❍ 6.2.2. Their knowledge of the language used in the scheme or vocabulary
  - ❍ 6.2.3. Their interest or knowledge of a particular subject or topical area covered by the scheme or vocabulary
  - ❍ 6.2.4. The time they have available for such tasks
- 6.3. Submissions unclaimed after one week will be assigned to a DC-UB member

by the chair.
- 6.4. The DC-UB chair will not shepherd individual submissions, but will keep track of submissions and ensure that all are resolved in some manner.
- 6.5. The shepherd will be responsible for verifying the submitted information:
  - 6.5.1. Name of the scheme or vocabulary
  - 6.5.2. Availability and maintenance status
  - 6.5.3. Appropriateness of the maintenance agency
  - 6.5.4. Uniqueness and appropriateness of the proposed token
  - 6.5.5. Possible use with elements not specified in the proposal
- 6.6. If necessary, the shepherd will initiate contact with the maintenance agency in the case of questions or concerns about the status of the scheme, the proposed token, or to clarify the submission.
- 6.7. The shepherd will edit the submission and complete the registration process by submitting the information to the DCMI Web Team.
- 6.8. The DCMI Web Team will report to the UB list when registration has been completed.
- 6.9. The DC-UB chair will prepare a monthly report of all new schemes.

7. Proposals for Registration of Application Profiles [top]

- [Under development]

8. Process for Revision of UB Administrative Processes [top]

- [Under development]

rev. dih 03/20/02

Valid XHTML 1.0! W3C CSS ✓

Metadata associated with this resource:
http://dublincore.org/usage/documents/process/index.shtml.rdf

Date: Mon, 15 Apr 2002 22:15:35 +0100
Reply-To: A mailing list for the Dublin Core Metadata Initiative's Usage
                     Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender: A mailing list for the Dublin Core Metadata Initiative's Usage
                     Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Agenda for 12-13 May - first draft
In-Reply-To: <20020415164250.A692@LEPIDUS>
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 15 Apr 2002, Thomas Baker wrote:

> 7. Structured Values (Andy)
>
>   -- Journal Article Bibliographic Citation (DCSV proposal from the
>   Citation Working Group)

I plan to send a more complete version of this message to dc-architecture
to initiate some discussion related to structured values and DCSV. For
info, this is my take on the current situation...

1) The current DCSV specification is confusing in associating the DCSV
label with two different syntaxes - one based on text strings, one based
on XML.

2) This confusion is carried over into the other specs built on DCSV -
DC-Point, DC-Box, and DC-Period.

3) My feeling is that the DCSV label should only be associated with the
text encoding and that references to the XML encoding should be removed
from the relevant specs.

4) My feeling is that we need to develop some rules for the content of
structured values. I have suggested rules in the past along the lines of

 the structured value, taken as a whole, should fall within the semantics
 of the containing element

The current specs for DC-Point, DC-Box and DC-Period fall cleanly within
this rule. I suspect that the DC-citation spec does also. I'm less
convinced that the recent DC-Agent structured value proposal does.

So... various actions fall out of this (IMHO).

```
a) Update the DCSV spec
b) Update the DC-Point, DC-Box and DC-Period specs
c) Develop new guidelines/spec for rules about structured values (possibly
   as part of DC-usage documentation?)


I don't know who can take these actions on!


(Note: none of this suggests that you can't use XML to encode structured
values... just that if you do, then you shouldn't label it as being DCSV).


Andy
--
Distributed Systems, UKOLN, University of Bath, Bath, BA2 7AY, UK
http://www.ukoln.ac.uk/ukoln/staff/a.powell        +44 1225 383933
Resource Discovery Network http://www.rdn.ac.uk/
```

Back to: Top of message | Previous page | Main DC-USAGE page

JISCmail _powered by Listserv_

A Journal Article Bibliographic Citation Dublin Core Structured Value

Dublin Core Metadata Initiative - Citation Working Group

28 March 2002

This version: <http://epub.mimas.ac.uk/DC/citdcsv-20020328.html>
Previous version: This is the first version for review
Latest version: <http://epub.mimas.ac.uk/DC/citdcsv.html>

Author: Ann Apps <ann.apps@man.ac.uk>
MIMAS, University of Manchester, UK

Status of this document: *Under Review*

Description: This document contains a proposal by the DCMI Citation Working Group [1] to the Dublin Core Usage Board for a method of encoding a Dublin Core compliant set of metadata properties for recording bibliographic citation information about journal articles within a string value. This proposed new encoding scheme, which employs a Dublin Core Structured Value, would become an alternative encoding scheme for *dc:identifier* and the proposed new element refinement *dcterms:citation* [2].

Summary

Elements	**dc:identifier** and **dcterms:citation** [2]
Qualifier	New encoding scheme: **DCMI Cite**, a DCSV as defined in section 3.2
Source of Proposal	DCMI Citation Working Group [1]
Justification	See sections 2 and 5
Overlap with other terms	None

Impact and Interoperability	There will be existing DC applications which have used differing methods for solving this problem, but there is no existing best practice
Best practice recommendations	See section 3.3
Examples	See section 4

---

1. Introduction and Objective

This document describes a proposal to the Dublin Core Usage Board for a recommendation to:

- Provide a Dublin Core compliant set of metadata properties for recording bibliographic citation information about journal articles
- Suggest an encoding mechanism for this set of properties within a string value

The suggested encoding scheme is a Dublin Core Structured Value (DCSV) [3] called *DCMI Cite*. This encoding scheme could be used as a qualifier for *dc:identifier* and for the proposed new element refinement *dcterms:citation* [2].

The purpose of these bibliographic citation properties is primarily to support resource discovery. They would assist with discovering the location of a resource and thus could support citation linking. In addition they could be used for resource description to support capture of the complete bibliographic record for a journal article.

One objective of this proposal is to provide a mechanism for encoding journal article bibliographic citation information within a single text string. This encoding method will be suitable for capturing this information within a *meta* tag in the *head* section of an HTML or xhtml document.

This proposal is a companion to the proposal for "A *citation* Element Refinement for *dc:identifier*" [2], but neither proposal depends on the other.

2. Bibliographic Citations

It should be noted that the bibliographic information described here is the complete bibliographic record for the resource itself. This proposal is not concerned with capturing citation linking data for a related resource.

2.1 Journal Article Bibliographic Citation Properties

The properties generally used to capture the bibliographic citation of a journal article may be identified at three distinct levels: the **Journal** level; the journal **Issue** level (which may also include a journal Volume level); and the individual **Article** level. The following table indicates these properties according to this hierarchical level, and where appropriate which Dublin Core element is already available to record the information.

Level	Property	DC Element
Journal	Journal Title	
	Journal Abbreviated Title	
	Journal Identifier	
Issue	Volume	
	Number	
	Chronology	
Article	Article Title	dc:title
	Author	dc:creator
	Publisher	dc:publisher
	Publication Year	dc:date
	Publication Date	dc:date
	Identifier	dc:identifier
	Pagination	

Notes:

- Journal Abbreviated Title may adhere to a published scheme, eg. ISO4, Chemical Abstracts, Index Medicus, Vancouver, World List. Often it is an abbreviated journal title which is included in a reference to an article rather than the full title of the journal.
- A journal identifier would usually be an ISSN.
- Issue Numbers are denoted differently in different journals, eg. `part'. Some journals are arranged by year, eg. 12/1999, in which case the year is effectively the volume.
- Chronology is the `cover date' as it appears on the cover of a printed journal. This may be different from the actual date of publication of the issue, which would be encoded in *dc:date/dct:issued*.
- Chronology could be denoted by a season or quarter.
- An article identifier could be: a URL to the actual article; a DOI; an article-level SICI; etc. Note that the only scheme for *dc:identifier* ratified by Dublin Core is URI, but that global standard identifiers such as ISSN and DOI can be encoded as URIs.
- Other information about an article may be recorded within other elements of the DC record. For instance, its abstract could be captured in *dc:description*, its

language in *dc:language* and keywords or classification information in *dc:subject*.
- Only the most common bibliographic information about an article has been included here. A Journal Issue could also have an identifier, such as an issue-level SICI, but this is less commonly used.

It is apparent from this table that there is currently no method within Dublin Core to capture the bibliographic citation of a journal article, except by recording the information in an ad hoc way within a *dc:description* element, or by capturing the metadata in a hierarchical manner.

3. The Proposal

3.1 Proposed Encoding for Journal Articles

The proposed recommended method for capturing bibliographic citation information about journal articles in Dublin Core is as follows:

- The bibliographic citation information for a journal article should be captured within a *dc:identifier* element or within a proposed *dcterms:citation* element refinement, encoded using a **DCMI Cite** DCSV.
- This information may include:
  - ○ Journal Title, Journal Abbreviated Title, Journal Identifier
  - ○ Volume, Issue Number, Chronology
  - ○ Pagination
- In addition a Journal Identifier or a Journal Issue Identifier may be included in a *dcterms:isPartOf dc:relation* element refinement
- All other information about an article, such as its title and authors, should be included as appropriate within the 15 elements of the basic Dublin Core Metadata Element Set

The proposed *DCMI Cite* DCSV would be suitable for encoding bibliographic citation information within a *meta* tag in the *head* section of an HTML or xhtml document, as well in XML/RDF values.

3.2 Proposed *DCMI Cite* Encoding Scheme

The proposed recommendation requires a new encoding scheme, *DCMI Cite* which follows the recommended Dublin Core Structured Value (DCSV) [3] syntax for encoding a list of labelled values within a text string:

DCMI Cite
    Name: DCMICite
    Label: DCMI Cite
    Definition: DCMI Cite identifies a journal article by its bibliographic citation

information.

The proposed labels which may be encoded within *DCMI Cite* are:

Journal Title
> **Label:** journalTitle
> **Definition** The title of a journal, ie. a serial publication. This may include the sub-title, but not extra information such as its affiliation with a society.

Abbreviated Journal Title
> **Label:** journalAbbreviatedTitle
> **Definition:** The abbreviated title of a journal, such as it may appear in a reference list It may follow some recommended scheme such as ISO4, Chemical Abstracts, Index Medicus, Vancouver, World, but the scheme would not be encoded within *DCMI Cite*. List.

Journal Identifier
> **Label:** journalIdentifier
> **Definition:** A global standard identifier of a journal. This would usually be an ISSN, but may follow some other standard such as CODEN.

Volume
> **Label:** journalVolume
> **Definition:** A number of a journal volume, in roman or arabic form, as it appears on the cover.

Issue Number
> **Label:** journalIssueNumber
> **Definition:** The issue, part or number which denotes a particular issue of a journal, as it appears on the cover. In many cases this indicates a part of a journal volume.

Chronology
> **Label:** journalIssueDate
> **Definition:** The formal date of a particular issue of a journal, as it appears on the cover.

Pagination
> **Label:** pagination
> **Definition:** The inclusive page range of an article within a particular journal issue, from first to last page. (For an electronic-only journal article, this property could record an article number.)

Note that this recommendation is based on the print model of journal publishing. At the present time, recording the position of an article within a printed journal is the generally used model and a requirement for reference linking. Most journals are still published according to this model, and many cited articles appear in older journals which were originally published in print. Where articles published in electronic-only journals are cited the pagination and possible the issue numbering information is irrelevant, though it would by necessity be replaced by some other numbering. This issue will be considered in the future by the DCMI Citation Working Group.

The DCSV syntax, to be used for *DCMI Cite* defines a list of 'label=value' pairs embedded within a text string. This syntax is a DCMI recommendation.

- equals-signs (=) separate plain-text labels of structured value-components from the values themselves
- semi-colons (;) separate value-components within a list
- equals-signs (=) and semi-colons (;) required within a value should be backslash (\) escaped

3.3 Best Practice Encoding

In the spirit of Dublin Core all the introduced properties are optional and repeatable with no prescribed order. However, common sense indicates that a bibliographic citation must contain sufficient information to identify a resource, and that the citation should not include conflicting details. This is generally understood to be a minimum of journal identification, journal volume and article start page, although this may vary depending on the organisation of the journal, eg. some journal issues always number from page one making the issue number significant. In order to satisfy the `dumb-down' principle it is recommended that a `DCMI Cite' contain sufficient details to identify the resource. Taking these considerations into account, it is recommended that:

- A citation should contain at least the minimum information to identify the article
- A citation should contain at least one of: journalTitle; journalAbbreviatedTitle; or journalIdentifier
- The only properties which may be repeated are: journalAbbreviatedTitle; journalIssueNumber; and journalIssueDate

It is further suggested that:

- journalIdentifier should be used within a citation only when journalTitle or journalAbbreviatedTitle are not known. If a journal identifier, such as ISSN, is required in addition to the journal title it should be included in a *dcterms:isPartOf* element.
- Repeated journalIssueDate or journalAbbreviatedTitle should not specify conflicting information. It would be sensible to repeat journalIssueDate only where the information was required in different formats, eg. Spring 2001 and 2001-04.
- Repeated journalIssueNumbers could be used for `parts of parts', eg. Volume 6, Issue 9, Part 2. Note that an alternative representation of this example could be: Volume 6, Issue 9/2.

4 Examples

4.1 A Journal Article Metadata Record

This is an example of a Dublin Core record for a journal article including its bibliographic citation information. This example is independent of any syntax recommendation apart from the DCMI Cite DCSV. Any other syntax and any line breaks used in this example are for clarification purposes only.

```
dc:title = Studying E-journal User Behavior Using Log Files
dc:creator = Lu, Y
dc:creator = Apps, A
dc:subject(scheme=DDC) = 020
dc:description = Statistical methods for analysing e-journal user behaviour.
dc:publisher = Pergamon
dcterms:issued(scheme=W3CDTF) = 2000
dc:type(scheme=DCMIType) = text
dcterms:medium(scheme=IMT) = application/pdf
dc:identifier(scheme=URI) = doi:10.1060/xyz.abc
dc:identifier(scheme=URI) =
urn:sici:07408188(200010)22:3<311:SEUB>2.0.CO;2-X
dcterms:citation(scheme=DCMICite) =
  journalTitle=Library and Information Science Research;
  journalAbbreviatedTitle=LISR;
  journalVolume=22;
  journalIssueNumber=3;
  journalIssueDate=October 2000;
  pagination=311-338;
dc:language(scheme=RFC1766) = en
dcterms:isPartOf(scheme=URI) = urn:issn:0740-8188
dc:rights = © Elsevier, 2000
```

4.2 An *xhtml* Example

This is an example of two properties within an *xhtml* metadata record for the same journal article which define its bibliographic citation. The first property, *dcterms:citation*, uses the *DCMI Cite* DCSV encoding scheme. [Note that line breaks are for clarification only.]

```
<meta name="dcterms:citation" scheme="DCMICite"
content="journalTitle=Library and Information Science Research;
journalAbbreviatedTitle=LISR;
journalVolume=22;
journalIssueNumber=3;
journalIssueDate=2000;
pagination=311-338;" />
<meta name="dcterms:isPartOf" scheme="URI"
content="urn:issn:0740-8188" />
```

5. Other Possible Solutions

5.1 Using *dc:description*

The advantages of the *dc:description* solution would be to retain the essential simplicity of Dublin Core, and that the information would be presented to someone discovering the metadata in a human-readable way. The latter point is important, and any solution should provide data to a human end-user in a readily understandable form - they may wish to find the article on a library shelf. The disadvantage of using *dc:description* is that it becomes difficult to perform further machine processing on the discovered metadata, which may be required for discovery of the location of the article.

5.2 A Hierarchical Solution

It would be possible to partially record the information in a hierarchical way, using a *dc:relation* element to point from an article record to a record for its containing issue, and similarly from the issue record to that for the containing journal. There are two drawbacks to this solution:

- There is no obvious DC element in which to encode the pagination information, which pertains to the article itself, not to the containing journal issue.
- It may be that there is insufficient knowledge of the containing journal and issue to allow for discovery of the article from such hierarchical metadata. An end-user would expect to receive all the information about an article following a search in one piece.

It could be thought that including information about a journal in the metadata for an article breaks the `one-to-one' rule. However the objective here is not to provide information about the journal, but rather to provide a bibliographic citation of an article, which effectively identifies it.

5.3 An Application Profile

Another possible method for including in a metadata record information which doesn't fit obviously into one of the 15 elements of the Dublin Core element set (DCMES), or the ratified qualifiers, is to introduce application specific elements and qualifiers within an application profile[4]. Thus an option would be to define a `citation' profile and include new elements such as `journal title' within it. However, capturing bibliographic citation information seems to be a generic, cross-domain problem. The bibliographic citation of a journal article is fairly fundamental information, required within many subject areas, at least for academia and researchers. It is information which is becoming increasingly significant with the implementation of linking technologies. Therefore it would seem sensible to have a best practice convention for capturing journal article citation

information within Dublin Core metadata using existing elements, rather than a proliferation of application profiles attempting to solve the same problem in different ways with new application specific elements. However, the bibliographic citation propoerties identified within this proposal, and suggested for encoding within a *DCMI Cite* DCSV would form the basis of a Citation Profile suitable for encoding in XML or RDF.

5.4 OpenURL

The emerging OpenURL [5] standard may provide an alternative encoding scheme for capturing journal article bibliographic citation information within a single string. However, there are currently reasons for not recommending OpenURL as a citation encoding scheme:

- OpenURL is not yet a standard and so is not yet stable. Although it would be possible to make recommendations on using the original draft version of OpenURL, now "pinned down" as version 0.1, it is likely that Version 1.0 will be different. The current timescale for OpenURL is for the NISO Committee to produce a standard for voting by NISO members by Autumn 2002.
- It is possble that OpenURL Version 1.0 may not include all the properties of a journal article which have been identified in this proposal. Metadata included in an OpenURL is for linking purposes, rather than for metadata description.

When OpenURL becomes a NISO/ANSI standard, the DCMI Citation Working Group will produce guidelines for its use as a possible value for a *citation* identifier. But it would be an alternative to the proposed *DCMI Cite* DCSV rather than a replacement for it.

- The proposed *DCMI Cite* DCSV is relatively human-readable, whereas an OpenURL is more cryptic. OpenURL is suitable only for situations where the citation is for machine processing.
- In situations where bibliographic citation information is to be keyed manually, it would be difficult to use an OpenURL, whereas using *DCMI Cite* would be straightforward. It is possible that this keyed information would also be for machine processing, so a plain text citation would be unsuitable.

5.5 Previous Work

How to record a bibliographic record for a journal article has previously been discussed by an earlier Dublin Core Citation Working Group, whose recommendation made after the DC7 Workshop was 'Citation Qualifier Proposal - 2000' [6], which also includes details of a vote by the general DC community at the plenary session at DC8 Workshop.

6. References

[1] DCMI Citation Working Group. http://www.dublincore.org/groups/citation

[2] A *citation* Element Refinement for *dc:identifier*
http://epub.mimas.ac.uk/DC/citproposal.html

[3] Cox, S. and Ianella, R. (2000) DCMI DCSV: A syntax for writing a list of labelled in a text string. http://dublincore.org/documents/dcmi-dcsv/

[4] Heery, R. and Patel, M. (2000) Application profiles: mixing and matching metadata schemas. *Ariadne* **25**, September 2000. http://www.ariadne.ac.uk/issue25/app-profiles

[5]NISO Committee AX: Development of an OpenURL Standard.
http://library.caltech.edu/openurl/

[6] Citation Qualifier Proposal - 2000.
http://www.dublincore.org/groups/citation/citqualifier2000.html

Date: Fri, 5 Apr 2002 13:01:25 +0100
Reply-To: Electronic discussion list to support the efforts of the Agent
                   working grou <DC-AGENTS@JISCMAIL.AC.UK>
Sender: Electronic discussion list to support the efforts of the Agent
                   working grou <DC-AGENTS@JISCMAIL.AC.UK>
From: "Clayphan, Robina" <Robina.Clayphan@BL.UK>
Subject: Re: Qualifiers for Creator, Contributor, Publisher
Comments: To: Dublin Core Libraries Application Profile
                   <DC-LIBRARIES-AP@JISCMAIL.AC.UK>,
                   "DC-LIBRARIES@JISCMAIL. AC. UK (E-mail)" <DC-LIBRARIES@JISCMAIL.AC.UK>
Content-Type: text/plain; charset="iso-8859-1"

Dear Colleagues,

Apologies for multiple copies.

This draft document is one of two proposals answering the third milestone
defined for the Agents Working Group at the DC 2001 conference [1] and
referred to in Rebecca's earlier email.

Milestone: Develop a list of CCP (Creator / Contributor / Publisher)
qualifiers

Description: Develop a list of CCP (Creator / Contributor / Publisher)
qualifiers. This would likely use the MARC relator codes as a point of
departure, and define such things as agent refinements, classes, types and
roles

Introduction

This proposal has been discussed on the DC Libraries Application Profile
list but is not intended solely for that domain. Comment is invited from
other domains.

As a result of discussion it was decided to separate the issue of agent
Roles from other agent-related data and offer two proposals. One will
describe a means of recording a Role for an agent and another will suggest a
means to encompass other information about the resource that is also related
to the agent.   This document is the second of these and describes a Dublin
Core Structured Value (DCSV) [2] for use as an encoding scheme with the
Creator, Contributor or Publisher elements.

It should be noted that unlike previous agent proposals, this DCSV is NOT an
attempt to describe the agent - that work is being progressed elsewhere in
the Agents Working Group. This DCSV aims to enhance resource discovery in
two ways: by adding further markup and therefore specificity to CCP values
(e.g. parts of names); by including further agent-related information about
the resource (e.g. affiliation at the time the resource was created).

Previous discussion of agent information had identified four Types of Agent:
personal, corporate, instrument (variously called entity, service, automata)
and event. Although each of these was assumed to have different components,
further consideration indicated that, given some latitude in the
definitions, the same group of components could serve for all types. All
the components in the DCSV are optional and those not relevant to any
particular type of agent can be ignored.

Proposed DCMI Agent Detail Encoding Scheme

The proposal requires a new encoding scheme, DCMI Agent Detail, which
follows the Dublin Core Structured Value syntax [2] for encoding a list of
labelled values within a text string. The Dublin Core Structured Value
definition has the status of a DCMI recommendation.

All components are optional. Different domains are free to specify which
components are desirable for the types of agent identified as valuable
within that domain. For example, the Library Application Profile would
provide guidance as to which components to use for agents appropriate to
library resources. Examples are given after the description of the
components.

DCMI Agent Detail
Name: DCMIAgentDetail
Label: DCMI Agent Detail
Definition: DCMI Agent Detail contains additional information about the
agent in its capacity as Creator, Contributor or Publisher of the resource
being described. It is not intended to describe the agent.

The proposed labels which may be encoded within DCMI Agent Detail are:

Family Name
Label: familyName
Definition: The family name or surname of the agent.
Note: Components for parts of names are given to avoid dependence on
parsing the value based on punctuation and the difficulties that can arise
due to different cultural norms. Specific markup of values gives greater
flexibility to users of the data for filing uses and enhanced resource
discovery.

Given Names
Label: givenNames
Definition: The personal name or names of the agent.

Name
Label: name
Definition: The full name of the agent, personal, corporate or of another
type, expressed in the manner recommended by any particular domain.
Note: An undifferentiated name component is included to accommodate names
that do not require the family name/given name sub-elements or applications

that choose not to use the sub-elements. In the latter case different
domains are free to specify their own guidance as to how the value should
be entered.

Affiliation Location
Label: affiliationLocation
Definition: The affiliation or location of the agent at the time they made
their contribution to the described resource. This can be the name of an
institution in the case of a personal agent or an address or geographic
name in the case of a publisher or corporate agent.
Note: It is not envisaged that this would be updated, the rationale being
that e.g. the affiliation of the author at the time of the creation of the
resource is an attribute of some significance to the resource and remains
the same for the resource even if the agent subsequently moves on.

Description
Label: description
Definition: To specify the type or nature of the agent. For example to
specify an event or instrument/automata/service. (See examples)

Date Time
Label: dateTime
Definition: The date and time at which the agent executed its role in the
life of the resource.
Note: This is regarded as important for event-type agents where the date
the agent executed the given role may differ from the date the resource was
created or issued.

Identifier
Label: identifier
Definition: An identifier for the agent.
Note: This component is included to allow for the inclusion of an agent
identifier and/or to enable linking to another record describing the agent
held separately from the record for the resource.

Role was considered as a component of the DCSV. A separate proposal is
being submitted to include role values as element refinements for the Agent
elements. This approach will be re-evaluated if necessary.

Jurisdiction has been proposed as an additional component of the DCSV. The
following definition is put forward here for discussion and clarification.
Label: jurisdiction
Definition: The local, provincial, regional, national or supranational
authority to which a corporate body belongs.
Note: For example, Jurisdiction may be "Australia" when Name is "Department
of Finance and Administration".

DCSV Examples
These examples assume that Role values have been approved as CCP element
refinements. Encoding schemes for the Identifier component within the DCSV
are shown using the namespace convention which may or may not be an
acceptable usage within a component. Line breaks are for the sake of

clarity only.

Example 1 (HTML). Showing a person as creator, an organisation as sponsor
and a publisher.


```
<meta name="DC.Creator.author"
scheme="DCMIAgentDetail"
content="familyName=Clayphan;
givenName=Robina;
affiliationLocation=The British Library;
identifier=AAAA:xxxx">
<meta name="DC.Contributor.sponsor"
scheme="DCMIAgentDetail"
content="name=Some Organisation;
affiliationLocation=London, England;
identifier=BBBB:yyyy">
<meta name="DC.Publisher" scheme="DCMIAgentDetail"
content="name=Some Publisher;
affiliationLocation=London, England;
identifier=CCCC:zzzz">
```


The following examples are guesses at how other domains would use the DCSV
for the types of agent that have been mentioned in past discussions -
principally the instrument/automata/service agent and event agent, which
equates to conferences in current library usage. Role qualifiers have not
been entered in either example. Guidance and examples are sought from other
domains.


```
Example 2: showing an instrument/automata/service agent.
(This is for a sound recording of a steam engine.)
<meta name="dc:Contributor"
scheme="DCMIAgentDetail"
content="name=The Flying Scotsman;
description=Steam Engine;
identifier=GNER:4472">
```


```
Example 3: showing an event agent as contributor.
<meta name="dc:Contributor"
scheme="DCMIAgentDetail"
content="name=Glastonbury Festival 2000;
affiliationLocation=Glastonbury, UK;
description=Music and performing arts festival;
dateTime=2000-06">
```


Regards,
Robina Clayphan

1 http://dublincore.org/groups/agents/
2 http://dublincore.org/documents/2000/07/28/dcmi-dcsv/

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-------------------------
```

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Title:	**DCMI DCSV: A syntax for writing a list of labelled values in a text string**
Creator:	Simon Cox
Creator:	Renato Iannella
Date Issued:	2000-07-28
Identifier:	http://dublincore.org/documents/2000/07/28/dcmi-dcsv/
Replaces:	http://dublincore.org/documents/2000/07/11/dcmi-dcsv/
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/documents/dcmi-dcsv/
Status of document:	This is a DCMI Recommendation.
Description of document:	We describe a method for recording lists of labelled values in a text string, called Dublin Core Structured Values, with the label DCSV. The notation is intended for structured information within attribute values in markup-languages such as HTML and XML. This is likely to be useful in recording complex element values in metadata systems based on the qualified Dublin Core model.
NOTICE TO IMPLEMENTORS:	The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending coordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator is a change from earlier versions of this specification which used ":" in the same position.** This change was considered desirable because the ":" character occurs frequently within strings which are likely to be used as names and values. Using "=" as a separator reduces the need to escape characters in the data.

Table of Contents

Introduction

It is highly desirable to be able to encode or *serialise* structured values within a plain-text string. Some generic methods are in common use. Inheriting conventions from natural languages, commas (,) and semi-colons (;) are frequently used as list separators. Similarly, comma-separated-values (CSV) and tab-separated-values (TSV) are common export formats from spreadsheet and database software, with *line-feeds* separating rows or tuples. Dots (.) and dashes (-) are sometimes used to imply hierarchies, particularly in thesaurus applications. The eXtensible Markup Language [XML] provides a general solution, using tags contained within angle brackets (<, >) to indicate the structure.

A number of named encoding schemes use punctuation characters within a text string to indicate specific components. For example, a colon (:) terminates the protocol label, and slashes (/), question-marks (?), ampersands (&) and hashes (#) are used to separate other fields in identifiers coded as URI's [URI]. Colons (:) separate specified labels from values within a field, and semi-colons (;) separate fields within a personal description according to a common implementation of vCard [vCard]. Hyphens are used to separate fields in a date according with the W3C profile of ISO8601 [W3C-DTF]. For some schemes - vCard and W3C-DTF, for example - the punctuation indicates a very formal structure to the value, and is expected to be parsed automatically.

Element *attributes* in markup languages, such as HTML [HTML4] and XML [XML], provide a position for recording data. For some "empty" elements - such as the <IMG > and <META > elements in HTML - attributes are the only place to hold data. In other cases there may be good reasons to store data in element attributes rather than element content. For example, fragments of XML can be included in the <HEAD> of a HTML document, and will be safely ignored by most client software (eg browsers) *provided the elements have no content*. This syntax trick can be used to embed XML-RDF encoded data safely in current versions of HTML [RDF-in-HTML].

Future versions of HTML are expected to overcome these limitations by allowing general XML documents to be included [XHTML]. Nevertheless, there is strong interest in using

HTML <META > elements to record data with more structure than normally implied by a plain-text string, in particular to record metadata according to the qualified Dublin Core model [Q-DC-HTML].

However, the use of element attributes for storing data has some technical limitations:

1. attributes may occur no more than once
2. values are constrained to a set of types which restricts the permissible character-strings [HTML4] in some contexts. Use of XML's angle-bracket delimiters (<, >) and various other punctuation characters is only valid in certain cases (i.e. when the content type is CDATA), and is only generally reliable using escape-mechanisms (i.e. as *character entities*). In general, strings containing these characters are prone to misinterpretation by some user-agents (e.g. browsers).

Note that there is no intrinsic way to indicate structure within the values of attributes of HTML elements.

Our intention in this note is to define a compact human-readable data-structuring method for HTML attribute values of content type CDATA, avoiding certain punctuation characters which are prone to cause difficulties in some encoding environments. The notation should normally be used only when no other suitable scheme is available. It is based on methods used and found successful elsewhere, but is more generalised than the preceding standards. It may be used as the basis of profiles designed to encode particular data types [Profiles].

Structured Values - the DCSV scheme

To allow the recording of generic **Structured Values**, we introduce the Dublin Core Structured Values (**DCSV**) scheme.

We distinguish between two types of substring - *labels* and *values*, where a label is the name of the type of a value, and a value is the data itself. Furthermore, we allow a complete value to be disaggregated into set of *components*, each of which has its own label and value. A value that is comprised of components in this way is called a *structured value*.

Punctuation characters are used in recording a structured value as follows:

- equals-signs (=) separate plain-text labels of structured value-components from the values themselves
- semi-colons (;) separate (optionally labelled) value-components within a list
- dots (.) indicate hierachical structure in labels, if required.

The labels and the component values themselves each consist of a text-string. The

intention is that the label will be a word or code corresponding to the name of the value-component. Labels may be absent, in which case the entire sub-string delimited by semi-colons (;) or the end of the string comprise a component value.

The following patterns show how structured values may be recorded in strings using DCSV:

> "u1; u2; u3"
> "cA=v1"
> "cA=v1; cB.part1=v2; cB.part2=v3"
> "cA=v1; u2; u3"

where u1, u2 and u3 are unlabelled components, cA and cB are the labels of Structured Value components, part1 and part2 are sub-components of cB, and v1, v2 and v3 are values of the components.

The use of specific punctuation characters in DCSV coded values means that care must be exercised if these characters are to be used directly within strings which comprise the content (either labels or values) of the components. For DCSV, therefore, when an equals-sign (=), or a semi-colon (;) is required within the value, the characters are escaped using a backslash, appearing as \= \;. There should be no ambiguity regarding the dot, full-stop or period (.) within strings: when it is part of a label, a dot indicates some hierachy; when part of a value, it has the conventional meaning for the context. This method of escaping special characters largely preserves readability and the ability to enter DCSV coded metadata values easily using a text-editor if required. Software written to process DCSV coded values must make the necessary substitutions.

Note that in HTML the double-quote (") character can be used directly within a CDATA attribute value if the full string is delimited by single-quotes ('), but in XML the double-quote must be encoded as a character entity in element attributes.

As there is no explicit grouping mechanism, DCSV can only be used to record a list. DCSV is only intended to be used for relatively simple structured values, probably as an interim approach, pending more general support for syntaxes such as XML which allow recording of more complex hierarchical structures. However, it is more compact than the XML equivalent, and is more easily read and constructed in some common contexts, such as within HTML <meta > elements.

Parsing DCSV

A simple method can be used to parse metadata values recorded according to the DCSV scheme. For a single value recorded using the DCSV scheme:

1. split the text-string into a list of substrings on any unescaped semi-colons (;);

if no semi-colon is present, there is a single substring

2. split each substring into its (label,value) on any unescaped equals-signs (=); if no = is present, the label is empty

3. within each value replace the escaped characters with the actual character required.

A short Perl program which performs this parsing operation is included at the end of this note.

Examples

"name.given=Renato; name.family=Iannella; employer=DSTC; Contact=Level 7, Gehrmann Labs, The University of Queensland, Qld. 4072, Australia" "rows=200; cols=450"

The DCSV scheme provides useful support for the representation of complex values for metadata elements in HTML, while remaining fully compatible with all commonally used tools (browsers, editors, metadata harvesters). When used in this way "DCMIDCSV" or the name of one of its derivatives can be noted as the value of the SCHEME attribute of the HTML <META> element as shown in the following examples of qualified Dublin Core metadata:

```
<META NAME="DC.Contributor" SCHEME="DCMIDCSV"
CONTENT="name.given=Eric; name.family=Miller;
employer=OCLC; height=170 cm">
<META NAME="DC.Format" SCHEME="DCMIDCSV"
CONTENT="rows=200; cols=450">
<META NAME="DC.Coverage.spatial" SCHEME="DCMIBOX"
CONTENT="name=Western Australia; northlimit=-13.5; southlimit=-
35.5; westlimit=112.5; eastlimit=129">
<META NAME="DC.Coverage.spatial" SCHEME="DCMIPOINT"
CONTENT="name=Bridgnorth, Shropshire, U.K.; east=372000;
north=293000; units=m; projection=U.K. National Grid">
<META NAME="DC.Date" SCHEME="DCMIPERIOD"
CONTENT="name=Perth International Arts Festival, 2000;
start=2000-01-26; end=2000-02-20;">
```

Sample Code for parsing DCSV coded values

The following Perl program reads a DCSV coded string entered on stdin, and prints a formatted version of the structured result. This code is provided for demonstration purposes only and contains no error-checking.

```perl
#!/usr/local/bin/perl

use strict

print "Enter string to be parsed:\n";

my $string = join(",<STDIN>);

print "\nString to be parsed is [$string]\n";

# First escape % characters
$string =~ s/%/"%".unpack('C',"%")."%"/eg;

# Next change \ escaped characters to %d% where d is the character's ascii code
$string =~ s/\\(.)/"%".unpack('C',$1)."%"/eg;

print "\nEscaped string is [$string]\n";

# Now split the string into components
my @components = split(/;/, $string);

print "\nComponents:\n";
foreach $component (@components) {

        my ($label, $value) = split(/=/, $component, 2);

        # if there is no = copy contents of $label into $value and empty $label
        if (!$value) {
        $value = $label;
        $name = '';
        }

        # strip whitespace from name string
        $label =~ s/^\s*(\S+)\s*$/$1/;

        # convert % escaped characters back in label string
        $label =~ s/%(\d+)%/pack('C',$1)/eg;

        #convert % escaped characters back in value string
        $value =~s/%(\d+)%/pack('C',$1)/eg;

        print "Label [$label] has value [$value]\n";
```

```
    }
```

Acknowledgments

References

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Dublin Core Metadata Initiative, OCLC, Dublin Ohio.
http://dublincore.org/

[**HTML4**]
Dave Raggett, Arnaud Le Hors, Ian Jacobs, 1999, *HTML 4.01 Specification*
http://www.w3.org/TR/html40/

[Profiles]
DCMI Box - specification of the spatial limits of a place, and methods for encoding this in a text string http://dublincore.org/documents/dcmi-box/

DCMI Point - a point location in space, and methods for encoding this in a text string http://dublincore.org/documents/dcmi-point/

DCMI Period - specification of the limits of a time interval, and methods for encoding this in a text string http://dublincore.org/documents/dcmi-period/

[**Q-DC-HTML**]
S. Cox, 1999, *Recording qualified Dublin Core metadata in HTML* http://www.ned.dem.csiro.au/research/visualisation/metadata/qdchtml/NOTE-QDCHTML-19991103.html

[**Q-DC-RDF**]
E. Miller, P. Miller, D. Brickley, 1999, *Guidance on expressing the Dublin Core within the Resource Description Framework (RDF)* http://www.ukoln.ac.uk/interop-focus/activities/dc/datamodel/

[**RDF-in-HTML**]
This uses the most compact form of XML-RDF [RDF-syntax], in which all the data occurs as attribute values. In this form several important capabilities are not available, such as multiple (repeated) values. For an example, see Figure 5 in S.J.D. Cox and K.D. Covil, *"A web-based geological information system using metadata"*, Proc. 3rd IEEE META-DATA Conference, http://computer.org/conferen/proceed/meta/1999/papers/7/cox_covil.html

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[**W3C-DTF**]

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[**XHTML**]

Steven Pemberton and many others, 1999 XHTML 1.0: The Extensible HyperText Markup Language

http://www.w3.org/TR/WD-html-in-xml/

See also Dave Raggett, HyperText Markup Language Activity Statement

http://www.w3.org/MarkUp/Activity.html

[**XML**]

Extensible Markup Language

http://www.w3.org/XML/

Valid XHTML 1.0!   W3C CSS✓

Dublin Core Metadata Initiative

ABOUT THE INITIATIVE   DOCUMENTS   GROUPS   RESOURCES

DCMI NEWS   TOOLS AND SOFTWARE   MEETINGS AND PRESENTATIONS   PROJECTS

Title:	**A Syntax for Writing a List of Labelled Values in a Text String**
Creator:	Simon Cox
Creator:	Renato Iannella
Date Issued:	1999-04-30
Identifier:	http://dublincore.org/documents/1999/04/30/labelled-values-syntax/
Replaces:	Not Applicable
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/documents/labelled-values-syntax/
Status of document:	This is a DCMI Note.
Description of document:	A method for recording lists of labelled values in a text string, called Dublin Core Structured Values, with the label DCSV, is described. The notation is intended for structured information within attribute value strings in markup-languages such as HTML and XML. This is likely to be useful in recording complex element values in metadata systems based on the qualified Dublin Core model.

1. Introduction

Element *attributes* in markup languages, such as HTML [HTML4] and XML [XML], provide an alternative position to the element *content* for recording data. For some "empty" elements - such as the `<IMG >`and `<META >`elements in HTML - attributes are the only place to hold data. In other cases there may be good reasons to prefer element attributes to element content for data. For example, fragments of XML can be included in the `<HEAD>`of a HTML document, and will be safely ignored by most client software (eg browsers) provided the elements have no content. This syntax trick can be used to embed XML-RDF encoded data safely in current versions of HTML [RDF-in-HTML].

Future versions of HTML are expected to overcome these limitations by allowing general XML documents to be included [XHTML]. Nevertheless, there is strong interest in using HTML `<META >`elements to record data with more structure than normally implied by a plain-text string, in particular to record metadata according to the qualified Dublin Core model [Q-DC-HTML].

However, the use of element attributes for storing data has a number of technical limitations:

1. attributes may occur no more than once
2. the data must consist of a text-string including no double-quotes (")

These features mean that there is no built-in way to indicate the structure of the data.

Nevertheless, in certain applications, it is highly desirable to be able to encode structured values within a plain-text string. Some generic methods are in common use. Inheriting conventions from natural languages, commas (,) and semi-colons (;) are frequently used as list separators. Similarly, comma-separated-values (CSV) and tab-separated-values (TSV) are common export formats from spreadsheet and database software. Dots (.) and dashes (-) are sometimes used to imply hierarchies, particularly in thesaurus applications.

A number of specific encoding schemes use punctuation characters within the text string to indicate structure. For example, colons (:) terminate protocol labels, and double slashes (//) act as separators for identifiers coded as URIs [URI]. Colons (:) separate specified labels from values within a field, and semi-colons (;) separate fields within a personal description according to vCard [vCard]. Hyphens are one of the many characters used to separate fields in a date according with ISO8601 [ISO8601]. For some schemes - vCard and ISO8601, for example - the punctuation indicates a very formal structure to the value, and is expected to be parsed automatically.

Our intention in this note is to define a generic, self-describing data-structuring method for text-strings, to be used when no other suitable scheme is available. This is based on methods used and found successful elsewhere, vCard in particular, but is more generalised than the preceding standards.

2. Structured Values - the DCSV scheme

To allow the recording of generic **Structured Values**, we introduce the Dublin Core Structured Values (**DCSV**) scheme.

We distinguish between two types of substring - *labels* and *values*, where a label is the name of the type of a value, and a value is the data itself. Furthermore, we allow a complete value to be disaggregated into set of *components*, each of which has its own label and value. A value that is comprised of components in this way is called a *structured value*.

Punctuation characters are used in recording a structured value as follows:

- colons (:) separate plain-text labels of structured value-components from the values themselves
- semi-colons (;) separate (optionally labelled) value-components within a list
- dots (.) indicate hierachical structure in labels, if required.

The labels and the component values themselves each consist of a text-string. The intention is that the label will be a word or code corresponding to the name of the value-component. Labels may be absent, in which case the entire sub-string delimited by semi-colons (;) or the end of the string comprise the component value.

The following patterns show how structured values may be recorded in strings using DCSV:

```
"u1; u2; u3"
"cA:v1"
"cA:v1; cB.part1:v2; cB.part2:v3"
"cA:v1; u2; u3"
```

where `u1`, `u2`and `u3`are unlabelled components, `cA`and `cB`are the labels of Structured Value components, `part1`and `part2`are sub-components of `cB`, and `v1`, `v2`and `v3`are values of the components.

The use of the specific punctuation characters in DCSV coded values means that these characters cannot be used directly within strings which comprise the content (either labels or values) of the components. For DCSV, therefore, when a period, full-stop or dot (.) a colon (:), or a semi-colon (;) is required within the value, the characters are escaped using a backslash, appearing as **\. \: \;**, and the backslash itself is escaped similarly **** . This method of escaping special characters largely preserves readability and the ability to enter DCSV coded metadata values easily using a text-editor if required. Software written to process DCSV coded values must make the necessary substitutions.

Note that, the double-quote (") character is a generic case that cannot be used directly within HTML or XML element attributes.

3. Parsing DCSV

A simple method can be used to parse metadata values recorded according to the DCSV scheme. For a single value recorded using the DCSV scheme:

1. split the text-string into a list of substrings on any unescaped semi-colons (;);
   if no semi-colon is present, there is a single substring
2. split each substring into its (label,value) on any unescaped colons (:);
   if no colon is present, the label is empty
3. within each value replace the escaped characters with the actual character required.

A short Perl program which performs this parsing operation is included at the end of this note.

4. Examples

```
"name.given:Renato; name.family:Iannella; employer:DSTC;
Contact:Level 7, Gehrmann Labs, The University of Queensland,
Qld\. 4072, Australia"
"rows:200; cols:450"
```

The DCSV scheme adds most of the components required for the representation of the qualified DC model in HTML [Q-DC-HTML][Q-DC-RDF], while remaining fully compatible with the HTML-4 [HTML] standard. It thus supports a recording method for qualified Dublin Core, compatible with tools which rely on HTML (browsers, metadata harvesters), but with a clear route for migrating relatively rich information into fully structured notations when appropriate. In this context, DCSV is noted as the value of the

```
SCHEME
```

attribute of the HTML

```
<META >
```

element as shown in the foloowing examples:

```
<META NAME="DC.Creator" SCHEME="DCSV"
          CONTENT="name.given:Simon; name.family:Cox;
employer:CSIRO; height:177 cm">
<META NAME="DC.Language" SCHEME="RFC1766" CONTENT="en-AU">
<META NAME="DC.Contributor" SCHEME="vCard" CONTENT="fn:Simon
Cox; org:CSIRO">
<META NAME="DC.Date" SCHEME="ISO8601" CONTENT="1999-04-30">
<META NAME="DC.Relation" SCHEME="URL"
CONTENT="http://www.foo.bar/explication.html">
<META NAME="DC.Format.media" SCHEME="IMT" CONTENT="image/gif">
<META NAME="DC.Format.size" CONTENT="14 kB">
<META NAME="DC.Format.size" SCHEME="DCSV" CONTENT="rows:200; cols:450">
```

5. Sample Code for parsing DCSV coded values

The following Perl program reads a DCSV coded string entered on stdin, and prints a formatted version of the structured result. This code is provided for demonstration purposes only and contains no error-checking.

```perl
#!/usr/local/bin/perl

print "Enter string to be parsed:\n";

my $string = join('',<STDIN>);

print "\nString to be parsed is [$string]\n";

# First escape % characters
$string =~ s/%/"%".unpack('C',"%")."%"/eg;

# Next change \ escaped characters to %d% where d is the
character's ascii code
$string =~ s/\\(.)/"%".unpack('C',$1)."%"/eg;

print "\nEscaped string is [$string]\n";

# Now split the string into components
my @components = split(/;/, $string);

print "\nComponents:\n";
foreach $component (@components) {
    my ($name, $value) = split(/:/, $component, 2);

    # if there is no : $value is empty so copy $name
into $value and empty $name
    if (!$value) {
```

```
        $value = $name;
        $name = '';
    }

    # strip whitespace from name string
    $name =~ s/^\s*(\S+)\s*$/$1/;

    # convert % escaped characters back in value string
    $value =~ s/%(\d+)%/pack('C',$1)/eg;

    print "Name [$name] has value [$value]\n";
}
```

---

6. Acknowledgments

John Kunze encouraged us to write up this proposal formally. Kim Covil wrote the perl code.

---

7. References

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> E. Miller, P. Miller, D. Brickley, 1999. *Guidance on expressing the Dublin Core within the Resource Description Framework (RDF)* http://www.ukoln.ac.uk/interop-focus/activities/dc/datamodel/

[RDF-in-HTML]
> This uses the most compact form of XML-RDF [RDF-syntax], in which all the data occurs as attribute values. In this form several important capabilities are not available, such as multiple (repeated) values. For an example, see Figure 5 in S.J.D. Cox and K.D. Covil, "A web-based geological information system using metadata", *Proc. 3rd IEEE META-DATA Conference*, http://computer.org/conferen/proceed/meta/1999/papers/7/cox_covil.html

[URI]
> T. Berners-Lee, R. Fielding, L Masinter, 1998 *Uniform Resource Identifiers (URI): Generic Syntax* RFC2396 http://info.internet.isi.edu/in-notes/rfc/files/rfc2396.txt
> T. Berners-Lee, L. Masinter, and M. McCahill, 1994 *Uniform Resource Locators*, RFC1738 http://info.internet.isi.edu/in-notes/rfc/files/rfc1738.txt.
> T. Berners-Lee, 1994 *Universal Resource Identifiers in WWW: A Unifying Syntax for the Expression of Names and Addresses of Objects on the Network as used in the World-Wide Web*,

RFC1630 http://info.internet.isi.edu/in-notes/rfc/files/rfc1630.txt.

[vCard]

F. Dawson, T. Howes, 1998 *vCard MIME Directory Profile* RFC2426 http://info.internet.isi.edu/in-notes/rfc/files/rfc2426.txt

[XHTML]

Steven Pemberton and many others, 1999 *XHTML 1.0: The Extensible HyperText Markup Language* http://www.w3.org/TR/WD-html-in-xml/

See also Dave Raggett, *HyperText Markup Language Activity Statement* http://www.w3.org/MarkUp/Activity.html

[XML]

Extensible Markup Language http://www.w3.org/XML/

Valid XHTML 1.0! W3C css

Dublin Core Metadata Initiative

Title:	**DCMI Point Encoding Scheme: a point location in space, and methods for encoding this in a text string**
Creator:	Simon Cox
Date Issued:	2000-07-28
Identifier:	http://dublincore.org/documents/2000/07/28/dcmi-point/
Replaces:	http://dublincore.org/documents/2000/07/11/dcmi-point/
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/documents/dcmi-point/
Status of document:	This is a DCMI Recommendation.
Description of document:	We introduce DCMI Point for identifying a point in space using its geographic coordinates. Components of the value correspond to the location coordinates in north and east directions, plus optionally elevation, and also allow the coordinate system and units to be specified, and a name if desired. We describe a method for encoding DCMI Point in a text-string, as a profile of DCSV. This notation is intended for recording the value of the DCES element **Coverage**, particularly when using HTML meta elements. We also show an alternative encoding for DCMI Point using XML.
NOTICE TO IMPLEMENTORS:	The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending coordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator in the DCMI-DCSV encoding is a change from earlier versions of this specification which used ":" in the same position.**

Table of Contents

1. Introduction

Several methods are available to indicate a *place*. These include, but are not limited to:

- a **name**, normally defined in an identifiable enumeration such as a gazetteer or list of jurisdictional localities
- a unique **geocode**, such as a postal code
- the coordinates of a **point**, using geographic values or some well-defined projection and units
- a set of arcs or faces describing the **polygon** or **polyhedron** comprising the perimeter of the place

- the **limits** of a regular shaped container which encompasses the place, typically a rectangular **box** in two or three dimensions, using geographic values or some well-defined projection and units

The Dublin Core Metadata Element Set [DCMES] includes an element, **Coverage**, the value of which may contain an identifier for a place. If a name or geocode is used then the scheme from which that is selected determines valid values. However, there are no simple, commonly used, notations for the identifiers which use coordinates. Here we define DCMI Point, an identifier which specifies the coordinates of the point location of a place, and describe methods for encoding DCMI Point, as a profile of DCSV [DCSV], and using a fragment of XML [XML]. If an identifier corresponding to an extensive *region* is required, then DCMI Box [BOX] is available for rectangular regions.

2. Identifying a place - the DCMI Point scheme

We identify a place using a point location, described using coordinates in an identified cartesian system. The point may correspond to some place within an extensive region, such as the areal or volumetric centroid, but we do not specify the nature of the relationship in this document.

We define the following components to describe the point:

Component	Definition	Default[1]
east	The value of the coordinate of the location measured in the east direction[2]	+/- INF[3]
north	The value of the coordinate of the location measured in the north direction[2]	+/- INF[3]
elevation	The value of the coordinate of the location measured in the vertical direction[2]	+/- INF[3]
units	The units applying to unlabelled numeric values of north, east	signed decimal degrees
zunits	The units applying to unlabelled numeric values of elevation	metres
projection	The name of the projection used with any parameters required, such as ellipsoid parameters, datum, standard parallels and meridians, zone, etc	geographic coordinates on Earth for north, east; height above mean-sea-level for elevation.
name	A name for the place[4]	-

[1] *All components are optional.*

[2] *Values are expressed as a text-string representing a number. Units should be included using conventional (SI) notation, unless the relevant* units *or* zunits *component is present. However, if units are given as part of any value, then for this component these override those given by* units *or* zunits*.*

[3] *If this component is absent then the value is undefined. Processors performing numeric comparisons are recommended to set values corresponding to maximally inclusive matching, i.e. the location is a line if one coordinate is missing, and a plane if two are missing.*

[4] *In this context the name is non-normative. In the case of a conflict, the place identified by the coordinate values takes precedence. The name is provided for user convenience only.*

3. Encoding DCMI Point

The components of a DCMI Point identifier have no meaning when disaggregated, since in any particular instance it is the complete set which acts as the *identifier*. Thus, use of DCMI Point to identify a place requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string. Various serialisation syntaxes are available, including DCSV [DCSV] and XML [XML].

In normal usage, the unadorned token "DCMI Point" should be taken to refer to the encoding using DCSV.

3.1 DCSV encoding

Writing DCMI Point using DCSV notation is straightforward, using the component names defined above. A DCMI Point value appears as follows:

```
 east=v1; north=v2; elevation=v3; units=v4; zunits=v5; projection=v6; name=v7
```

where `v1 - v7` are values as defined in the table above.

All components are optional but may not be repeated, and the ordering is not significant.

3.2 XML encoding

DCMI Point may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
 <Point projection="v6" name="v7">

   <east units="v4a">v1</east>

   <north units="v4b">v2</north>

   <elevation zunits="v5">v3</elevation>

 </Point>


 defined by the DTD fragment:


 <!ELEMENT    Point      (east?,north?,elevation?)>

 <!ATTLIST    Point

      projection  CDATA    "geographic, height relative to mean-sea-level"

      name        CDATA    #IMPLIED >

 <!ELEMENT    east        (#PCDATA)>

 <!ATTLIST    east        units    CDATA "signed decimal degrees">

 <!ELEMENT    north       (#PCDATA)>

 <!ATTLIST    north       units    CDATA "signed decimal degrees">

 <!ELEMENT    elevation   (#PCDATA)>

 <!ATTLIST    elevation   zunits   CDATA "m">
```

The values here are equivalent to the values in the DCSV profile. Note that:

1. We have defined an XML *element* Point. Instances of this would occur within a complete XML *document*.
2. The content model for Point is a conventionally ordered (x,y,z) sequence of (optional) coordinate elements. This is a cleaner representation of the information required to specify the "point" structure than is possible in DCSV. All other components of DCMI Box occur as *attributes*
3. units and zunits are recorded in an XML *attribute*. Since these are associated directly with the local coordinate element, it is possible to express different components in different units if desired.

4. Examples

Perth, Western Australia:

```
name=Perth, W.A.; east=115.85717; north=-31.95301
```

```
<Point name="Perth, W.A.">
        <east>115.85717</east>
        <north>-31.95301</north>
</Point>
```

Bridgnorth, Shropshire, U.K.:

```
east=372000; north=293000; units=m; projection=U.K. National Grid
```

```
<Point projection="U.K. National Grid" name="Bridgnorth">
        <east units="m">372000</east>
        <north units="m">293000</north>
</Point>
```

The Greenwich Meridian:

```
east=0;
```

```
<Point>
        <east>0</east>
</Point>
```

The highest point in Australia, illustrating the use of 3-D coordinates (and how flat Australia is):

```
east=148.26218; north=-36.45746; elevation=2228; name=Mt. Kosciusko
```

```
<Point name="Mt. Kosciusko">
        <east>148.26218</east>
        <north>-36.45746</north>
        <elevation>2228</elevation>
</Point>
```

5. References

[BOX]
S. Cox, 1999. DCMI Box Encoding Scheme- specification of the spatial limits of a place, and methods for encoding this in a text string http://dublincore.org/documents/dcmi-box/
[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description
http://dublincore.org/documents/dces/
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Dublin Core Metadata Initiative, OCLC, Dublin Ohio.
http://dublincore.org/
[DCSV]
S. Cox, R. Iannella, 1999. A syntax for writing a list of labelled values in a text string
http://dublincore.org/documents/1999/04/30/labelled-values-syntax/
[XML]
Extensible Markup Language
http://www.w3.org/XML/

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Dublin Core Metadata Initiative

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Title:	## DCMI Period Encoding Scheme: specification of the limits of a time interval, and methods for encoding this in a text string
Creator:	Simon Cox
Date Issued:	2000-07-28
Identifier:	http://dublincore.org/documents/2000/07/28/dcmi-period/
Replaces:	http://dublincore.org/documents/2000/07/11/dcmi-period/
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/documents/dcmi-period/
Status of document:	This is a DCMI Recommendation.
Description of document:	We introduce DCMI Period for identifying a single time interval using its limits. Components of the value correspond to the start and end of the interval, either of which may be ommitted in the case of a single-ended interval. We describe a method for encoding DCMI Period in a text-string, as a profile of DCSV. This notation is intended for recording the value of the DCMES elements **Coverage** and **Date**, particularly when using HTML meta elements. We also show an alternative encoding for DCMI Period using XML.
NOTICE TO IMPLEMENTORS:	The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending co-ordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator in the DCMI-DCSV encoding is a change from earlier versions of this specification which used ":" in the same position.**

Table of Contents

1. Introduction

Several methods are available to indicate a time interval. These include, but are not limited to:

- a **name**, normally defined in an enumeration such as a list of artistic, cultural, historical, archaeological, geological or cosmological eras or periods, a list of ruler's names, families or dynasties, etc.
- the **limits** of the interval, using either numeric or named values, the latter optionally including qualifiers such as

start of, end of, middle of, etc.

The Dublin Core Metadata Element Set [DCMES] includes two elements, **Coverage** and **Date**, the values of which may contain an identifier for a time interval.

If a name is used then the scheme from which it is selected determines the meaning.

The W3C profile of the ISO8601 standard for dates and times [W3C-DTF] is generally useful for identifying time instants, and also includes a method for specifying complete intervals by joining two instants with a "/" character. However, there is a need for a richer model for use in some cases, for three reasons:

1. open intervals, i.e. those with only a start or an end, are not included in the specification
2. the syntax cannot be adapted for use with other spatio-temporal dimensions, which would be desirable for consistency of use with the DCMES Coverage element
3. the identification of the start and end of the interval is implicit - relying in the position within a string - and therefore error-prone, rather than explicitly labelled.

The W3C recommendation *Mathematical Markup Language* [MathML] includes an XML binding for intervals which permits quite general intervals to be described, using both numeric and non-numeric bounds. This is a syntax-specific notation which, in order to be consistent with other parts of the bigger specification of which it is a part, includes features which are relatively obscure for the simple goal here. It is also unclear how to specify this extract from a much larger standard, and since it is presented as an XML notation, other serialisations would need to be specified separately in any case.

Here we define DCMI Period, an identifier which uses a simple model to specify the limits of a time interval, and describe methods for encoding DCMI Period, as a profile of DCSV [DCSV], and using a fragment of XML [XML]. DCMI Period has been designed to be similar to DCMI Box [BOX] used for identifying a place, and thus allows consistent encoding of spatio-temporal information in the DCMES element **Coverage**, as well as consistency between **Coverage** and **Date**. The components of DCMI Period re-use the W3C-DTF syntax where possible.

DCMI Period identifies a single time *interval*. If an identifier corresponding to a time instant is required, then W3C-DTF [W3C-DTF] is available. For multiple disjoint intervals, repeated instances of DCMI Period may be used. DCMI Period is unsuited for identification of recurring and periodic time intervals.

2. Identifying a time interval - the DCMI Period scheme

We identify a time interval by specifying the start and end of the interval.

We define the following components to describe the interval:

Component	Definition	Default[1]
start	The instant corresponding to the commencement of the time interval	-INF[2]
end	The instant corresponding to the termination of the time interval	INF[2]
scheme	The encoding used for the representation of the time-instants in the start and end components[3]	W3C-DTF
name	A name for the time interval[4]	-

[1]*All components are optional.*
[2]*If either start or end is absent, then this implies an interval unbounded on that side. Thus, a DCMI Period with a single component start="2000-01-26" would identify the interval starting at the beginning of Australia Day in the year 2000 C.E. and continuing from that time.*

3_If a non-numeric encoding is used then matching is maximally inclusive: i.e. if a start component is expressed as a named era then the interval being identified starts at the beginning of the era, and conversely for an end component the interval ends at the end of the named era._

4_In this context the name is non-normative. In the case of a conflict, the interval identified by the start and end values takes precedence. The name is provided for user convenience only._

3. Encoding DCMI Period

The components of a DCMI Period identifier have no meaning when disaggregated, since in any particular instance it is the complete set which acts as the _identifier_. Thus, use of DCMI Period to identify a time interval requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string. Various serialisation syntaxes are available, including DCSV [DCSV] and XML [XML].

In normal usage, the unadorned token "DCMI Period" should be taken to refer to the encoding using DCSV.

3.1 DCSV encoding

Writing DCMI Period using DCSV notation is straightforward, using the component names defined above. A DCMI Period value appears as follows:

```
 start=v1; end=v2; scheme=v3; name=v4;


    where v1 - v4 are values as defined in the table above.
```

All components are optional but may not be repeated. The ordering is not significant.

3.2 XML encoding

DCMI Period may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
 <Period name="v4">

   <start scheme="v3a">v1</start>

   <end scheme="v3b">v2</end>

 </Period>
```

defined by the DTD fragment:

```
 <!ELEMENT    Period       (start?,end?)>

 <!ATTLIST    Period

      name         CDATA #IMPLIED >

 <!ELEMENT    start   (#PCDATA)>

 <!ATTLIST    start   scheme    CDATA "W3C-DTF">

 <!ELEMENT    end     (#PCDATA)>

 <!ATTLIST    end     scheme    CDATA "W3C-DTF">
```

The values here are equivalent to the values in the DCSV profile. Note that:

1. We have defined an XML *element* Period. Instances of this would occur within a complete XML *document*.
2. The content model for Period is an ordered pair of elements (start,end), either of which may be omitted. All other components of Period occur as *attributes*
3. The scheme used to represent the component time-instants is recorded in an XML *attribute*. Since these are associated directly with either the start or end element, it is possible to express different components using different notations if desired.

4. Examples

The Great Depression:

name=The Great Depression; start=1929; end=1939;

```
<Period name="The Great Depression">

        <start>1929</start>

        <end>1939</end>

</Period>
```

Perth International Arts Festival, 2000:

```
name=Perth International Arts Festival, 2000; start=2000-01-26; end=2000-02-20;


<Period name="Perth International Arts Festival 2000">

        <start>2000-01-26</start>

        <end>2000-02-20</end>

</Period>
```

1999 AFL Grand Final:

```
start=1999-09-25T14:20+10:00; end=1999-09-25T16:40+10:00; scheme=W3C-DTF;


<Period name="1999 AFL Grand Final">

        <start scheme="W3C-DTF">1999-09-25T14:20+10:00</start>

        <end scheme="W3C-DTF">1999-09-25T16:40+10:00</end>

</Period>
```

The Phanerozoic Eon:

```
start=Cambrian period; scheme=Geological timescale; name=Phanerozoic Eon;
```

```
<Period name="Phanerozoic Eon">

        <start scheme="Geological timescale">Cambrian period</start>

</Period>
```

5. References

[BOX]
S. Cox, 1999, DCMI Box - specification of the spatial limits of a place, and methods for encoding this in a text string
http://dublincore.org/documents/dcmi-box/
[DCMES]
1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description
http://dublincore.org/documents/dces/
[DCMI]
Dublin Core Metadata Initiative, OCLC, Dublin Ohio. http://dublincore.org/
[DCSV]
S. Cox, R. Iannella, 1999. A syntax for writing a list of labelled values in a text string
http://dublincore.org/documents/1999/04/30/labelled-values-syntax/
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[W3C-DTF]
M. Wolf, C. Wicksteed, 1997, Date and Time Formats
http://www.w3.org/TR/NOTE-datetime
[XML]
Extensible Markup Language
http://www.w3.org/XML/

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Metadata associated with this resource: http://dublincore.org/documents/dcmi-period/index.shtml.rdf

Dublin Core Metadata Initiative

ABOUT THE INITIATIVE   DOCUMENTS   GROUPS   RESOURCES
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Title:	## DCMI Box Encoding Scheme: specification of the spatial limits of a place, and methods for encoding this in a text string
Creator:	Simon Cox
Date Issued:	2000-07-28
Identifier:	http://dublincore.org/documents/2000/07/28/dcmi-box/
Replaces:	http://dublincore.org/documents/2000/07/11/dcmi-box/
Is Replaced By:	Not Applicable
Latest version:	http://dublincore.org/documents/dcmi-box/
Status of document:	This is a DCMI Recommendation.
Description of document:	The DCMI Box encoding scheme is a method for identifying a region of space using its geographic limits. Components of the value correspond to the bounding coordinates in north, south, east and west directions, plus optionally up and down, and also allow the coordinate system and units to be specified, and a name if desired. A method for encoding DCMI Box in a text-string, as a profile of DCSV is described. This notation is intended for recording the value of the DCMES element **Coverage**, particularly when using HTML meta elements. An alternative encoding for DCMI Box using XML is also shown.
NOTICE TO IMPLEMENTORS:	The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending coordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator in the DCMI-DCSV encoding is a change from earlier versions of this specification which used ":" in the same position.**

Table of Contents

1. Introduction

Several methods are available to indicate a place. These include, but are not limited to:

- a **name**, normally defined in an identifiable enumeration such as a gazetteer or list of jurisdictional localities
- a unique **geocode**, such as a postal code
- the coordinates of a **point**, using geographic values or some well-defined projection and units
- a set of arcs or faces describing the **polygon** or **polyhedron** comprising the perimeter of the place

- the **limits** of a regular shaped container which encompasses the place, typically a rectangular **box** in two or three dimensions, using geographic values or some well-defined projection and units

The Dublin Core Metadata Element Set [DCMES] includes an element, **Coverage**, the value of which may contain an identifier for a place. If a name or geocode is used then the scheme from which that is selected determines valid values. However, there are no simple, commonly used, notations for the identifiers which use coordinates. Here we define DCMI Box, an identifier which specifies the geographic limits of a place, and describe methods for encoding DCMI Box, as a profile of DCSV [DCSV], and using a fragment of XML [XML].

In the simplest usage DCMI Box approximates the extent of a place using a container with a regular shape. For a more precise representation of an irregular shape it is possible to use the approach of "tiling" the place with a set of simple regions defined using DCMI Box. Alternatively, another notation describing a polygon or polyhedron may be used. If an identifier corresponding to a *point* is required, then DCMI Point [POINT] is available.

2. Identifying a place - the DCMI Box scheme

We identify a place by considering the minimal rectangular box which fully encloses the place, whose faces are aligned parallel with the axes of an identified cartesian coordinate system [Figure].
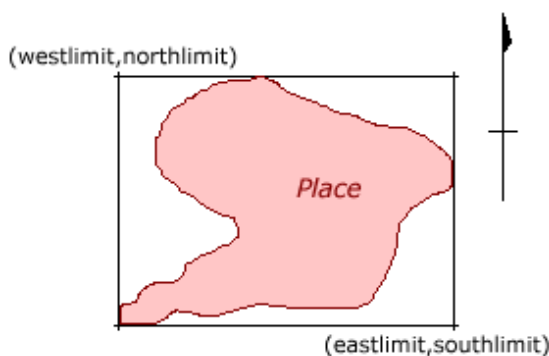
We define the following components to describe the box:

Component	Definition	Default[1]
northlimit	The value of the constant coordinate for the northernmost face or edge[2]	INF[3]
eastlimit	The value of the constant coordinate for the easternmost face or edge[2]	INF[3]
southlimit	The value of the constant coordinate for the southernmost face or edge[2]	-INF[3]
westlimit	The value of the constant coordinate for the westernmost face or edge[2]	-INF[3]
uplimit	The value of the constant coordinate for the uppermost face or edge[2]	INF[3]
downlimit	The value of the constant coordinate for the lowermost face or edge[2]	-INF[3]
units	The units applying to unlabelled numeric values of northlimit, eastlimit, southlimit, westlimit	signed decimal degrees
zunits	The units applying to unlabelled numeric values of uplimit, downlimit	metres

projection	The name of the projection used with any parameters required, such as ellipsoid parameters, datum, standard parallels and meridians, zone, etc	geographic coordinates on Earth for northlimit, eastlimit, southlimit, westlimit; height above mean-sea-level for uplimit, downlimit.
name	A name for the place[4]	-

[1]All components are optional. If any *limit component is absent, then this implies an interval unbounded on that side. Thus, a DCMI Box with a single component northlimit="0" would identify the entire southern hemisphere.

[2]Values are expressed as a text-string representing a number. Units should be included using conventional (SI) notation, unless the relevant units or zunits component is present. However, if units are given as part of any value, then for this component these override those given by units or zunits.

[3]If this component is absent then the value is undefined. Processors performing numeric comparisons are recommended to set values corresponding to maximally inclusive matching.

[4]In this context the name is non-normative. In the case of a conflict, the place identified by the coordinate values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Box

The components of a DCMI Box identifier have no meaning when disaggregated, since in any particular instance it is the complete set which acts as the *identifier*. Thus, use of DCMI Box to identify a place requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string. Various serialisation syntaxes are available, including DCSV [DCSV] and XML [XML].

In normal usage, the unadorned token "DCMI Box" should be taken to refer to the encoding using DCSV.

3.1 DCSV encoding

Writing DCMI Box using DCSV notation is straightforward, using the component names defined above. A DCMI Box value appears as follows:

```
northlimit=v1; eastlimit=v2; southlimit=v3; westlimit=v4; uplimit=v5;
downlimit=v6; units=v7; zunits=v8; projection=v9; name=v10
```

where `v1 - v10` are values as defined in the table above.

All components are optional but may not be repeated, and the ordering is not significant.

3.2 XML encoding

DCMI Box may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
<Box projection="v9" name="v10">

<northlimit units="v7a">v1</northlimit>

<eastlimit units="v7b">v2</eastlimit>

<southlimit units="v7c">v3</southlimit>

<westlimit units="v7d">v4</westlimit>

<uplimit zunits="v8a">v3</uplimit>

<downlimit zunits="v8b">v4</downlimit>

</Box>
```

defined by the DTD fragment:

```
<!ELEMENT   Box   (northlimit?,eastlimit?,southlimit?,westlimit?,uplimit?,downlimit?)>
<!ATTLIST   Box
       projection  CDATA "geographic, height relative to mean-sea-level"
       name        CDATA #IMPLIED >
<!ELEMENT   northlimit  (#PCDATA)>
<!ATTLIST   northlimit  units   CDATA "signed decimal degrees">
<!ELEMENT   eastlimit   (#PCDATA)>
<!ATTLIST   eastlimit   units   CDATA "signed decimal degrees">
<!ELEMENT   southlimit  (#PCDATA)>
<!ATTLIST   southlimit  units   CDATA "signed decimal degrees">
<!ELEMENT   westlimit   (#PCDATA)>
<!ATTLIST   westlimit   units   CDATA "signed decimal degrees">
<!ELEMENT   uplimit     (#PCDATA)>
<!ATTLIST   uplimit     zunits  CDATA "m">
<!ELEMENT   downlimit   (#PCDATA)>
<!ATTLIST   downlimit   zunits  CDATA "m">
```

The values here are equivalent to the values in the DCSV profile. Note that:

1. We have defined an XML *element* Box. Instances of this would occur within a complete XML *document*.
2. The content model for Box is a (clockwise) sequence of (optional) *limit elements. This is a cleaner representation of the information required to specify the "box" structure than is possible in DCSV. All other components of Box occur as *attributes*
3. units and zunits are recorded in an XML *attribute*. Since these are associated directly with the local *limit element, it is possible to express different components in different units if desired.

4. Examples

Western Australia:

```
name=Western Australia; northlimit=-13.5; southlimit=-35.5;
westlimit=112.5; eastlimit=129


<Box name="Western Australia">
<northlimit>-13.5</northlimit>
<eastlimit>129</eastlimit>
<southlimit>-35.5</southlimit>
<westlimit>112.5</westlimit>
</Box>
```

Lake Jindabyne:

```
northlimit=5980000; westlimit=644000; eastlimit=647000; southlimit=5966000;

units=m; projection=UTM zone 55 south

<Box projection="UTM zone 55 south" name="Lake Jindabyne">

<northlimit units="m">5980000</northlimit>

<eastlimit units="m">647000</eastlimit>

<southlimit units="m">5966000</southlimit>

<westlimit units="m">644000</westlimit>

</Box>
```

The Western Hemisphere:

```
westlimit=180; eastlimit=0


<Box>

<eastlimit>0</eastlimit>

<westlimit>180</westlimit>

</Box>
```

The Tropics:

```
northlimit=23.5; southlimit=-23.5


<Box>

<northlimit>23.5</northlimit>

<southlimit>-23.5</southlimit>

</Box>
```

A mine, illustrating the use of 3-D coordinates:

```
northlimit=-21.3; southlimit=-21.4; westlimit=139.8; eastlimit=139.9;

uplimit=400; downlimit=-100; name=Duchess copper mine


<Box name="Duchess copper mine">

<northlimit>-21.3</northlimit>

<eastlimit>139.9</eastlimit>

<southlimit>-21.4</southlimit>

<westlimit>139.8</westlimit>
```

```
<uplimit>400</uplimit>

<downlimit>-100</downlimit>

</Box>
```

5. References

[DCMES]
1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description
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S. Cox, 1999. DCMI Point - a point location in space and methods for encoding this in a text string,
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[DCSV]
S. Cox, R. Iannella, 1999. A syntax for writing a list of labelled values in a text string
http://dublincore.org/documents/1999/04/30/labelled-values-syntax/
[XML]
Extensible Markup Language http://www.w3.org/XML/

Date: Wed, 24 Apr 2002 09:40:55 +0200
Reply-To: A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender: A mailing list for the Dublin Core Metadata Initiative's Usage Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From: Thomas Baker <thomas.baker@BI.FHG.DE>
Subject: [Agenda point 8] Applica
In-Reply-To: <20020424083552.A1708@LEPIDUS>; from thomas.baker@BI.FHG.DE on Wed, Apr 24, 2002 at 08:35:53AM +0200
Content-Type: text/plain; charset=us-ascii


```
>8. Application profiles
>
>     -- Usage Board role (Tom Baker)
>     -- DC-Gov profile (Stuart Sutton)
>         http://dublincore.org/usage/decisions/2001/government-02.shtml
>     -- Libraries profile (Rebecca Guenther)
```

At least one week before the meeting I will circulate a
two-page (at most!) position paper, suitable for inclusion
in the evolving Process document almost "as is", on how the
Usage Board can review Application Profiles. In a nutshell,
I see the AP at this point as a documentary construct -- a Web
page -- that will perhaps be expressible in RDF or XML in ways
yet to be clarified. We should have minimalist requirements
for what an AP _must_ have and allow people to append all
sorts of additional information as needed.

After looking at APs as wholes, from a standpoint of
documentary form and clarify, we should then focus on those
bits that are related to Dublin Core elements and review them
as we did with the DC-Gov proposal in Tokyo.

The status we assign, whatever we call it, should not be
"recommendation" but something like "favorably reviewed by
DCMI Usage Board". My apologies for not already having that
two-pager, but we have all been thinking about and discussing
these issues for a long time and I have hopes that a consensus
will emerge that we can capture formally in our Process
documentation within a few iterations after the Bath meeting.

I would then like to turn the floor over to Stuart to walk
through the latest version of the DC-Gov AP, just submitted to
us yesterday, and see how we might turn our Tokyo comments,
revised or expanded in light of work on the AP since then,
into a formal review. Rebecca can then lead discussion of
the Libraries AP. Preparation should include studying the
two APs and the Tokyo comments in the meeting packet.

After reviewing these two profiles, I would like to discuss
in what form we should make our review comments available.
Would we want to start a Web page pointing to Application
Profiles and to the texts of our formal reviews? How big
do we think the demand might be for such reviews, and can we
extrapolate from our experience with these two APs to estimate
how much time and effort we should reasonably dedicate to
this task as opposed to other priorities of the Usage Board.

Because of their size and the newness of our process, I would
ideally like to take 60 for each AP, plus 60 minutes for the
process-related discussion before and after -- ideally, one
morning session of three hours. Or could we do it in less?

--
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DCMI Usage Board Review of Application Profiles
Tom Baker
Version: Tue Apr 30 21:08:00 EDT 2002

1. "Application Profile" defined

An Application Profile (here, "Profile") is a document
that declares which metadata terms an organization,
information resource, application, or user community
uses in its metadata.

For the purposes of DCMI Usage Board review:

-- By definition, a profile cannot "declare" new metadata
   terms and definitions; it only "reuses" terms from existing
   namespaces [HEERY].

-- A namespace is "a formal collection of terms managed
   according to a policy or algorithm" [DUVAL]. The ideal
   namespace will use URIs to uniquely identify its terms
   within XML namespaces [DCMI-NAMESPACE]. As of 2002,
   however, "good practice" for declaring namespaces in XML
   is so unclear that this cannot be required.

-- By definition, any new term coined for use in the profile
   must first be declared in a namespace citable in
   the Profile. DCMI may act as a neutral host for such
   namespaces.

-- A Profile may also provide additional documentation
   on how the terms used are adapted, constrained, encoded,
   or interpreted for particular purposes.

As of 2002, Profiles are seen primarily as a form of
documentation, the purpose of which is to help implementor
communities harmonize their metadata practice. It is hoped that
in the longer term, machine-processable versions of such
profiles based on data models such as RDF will provide a basis
for automating metadata interoperability functions such as
semantic crosswalks and format conversions.

2. Documentation requirements for Profiles

For the purposes of review by the Usage Board:

-- Profiles must provide, for each term, an identifier
   of the namespace where it is defined, ideally in
   the form of URIs for individual terms.

-- If the terms in a profile describe anything other
   than generic "resources" (the typical domain of
   Dublin Core), the profile must make this clear. This is

particularly important if a Profile is based on a data
model that describes multiple classes of resources or
specific classes such as agents or collections.

-- It is recommended that profiles be prepared with reference
to previously reviewed profiles as models for their layout,
appearance, and content. Aside from the required namespace
identifier, there are no particular constraints on the
types of documentation -- local definitions, comments,
constraints, or technical notes -- that may be associated
with a term.

-- Each profile must describe, or point to documentation that
describes:

-- The context and purposes in which the Profile is used
or is likely to be used.

-- The organizations or individuals involved in its
development and a capsule history thereof.

-- Any arrangements, policies, or intentions regarding the
future development and maintenance of the Profile.

3. Review of Profiles by the Usage Board

-- A Profile is "well-formed" if it is presented in accordance
with the broad and flexible requirements outlined above.
These presentation requirements may become more specific as
"good practice" emerges over time.

-- Usage Board review focuses on the use of terms related to
Dublin Core terms and on any data models that provide a
context for those terms. The Usage Board is agnostic about
the use of terms unrelated to Dublin Core; strictly speaking
such terms are outside the scope of Usage Board review.

-- The use of terms related to Dublin Core (such as qualifiers
of Dublin Core elements, or Dublin Core elements that have
been adapted or constrained for particular contexts) will be
evaluated from the standpoint of grammatical principle (eg,
"dumb-down"), scope (eg, "resource discovery"), and good
practice.

4. Publication and use of Usage Board reviews

-- For profiles that "pass" review, the Usage Board
will publish a Review on a Web page for Profiles.

-- Each Review will include, at a minimum:

-- Any comments from the Usage Board on the Profile.

        -- Pointers to locally archived copies of the profile
           as originally submitted and (if necessary) as
           subsequently amended in light of Usage Board
           comments.
        -- A pointer to the "latest version" of a Profile
           held by its maintainers.

    -- Review represents a form of recognition, and its
       URL will be persistent for purposes of citation.

References

[HEERY] Rachel Heery and Manjula Patel, Application profiles:
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[DUVAL] Erik Duval, Wayne Hodgins, Stuart Sutton, Stuart Weibel,
Metadata Principles and Practicalities, D-Lib Magazine 8(4),
April 2002, http://www.dlib.org/dlib/april02/weibel/04weibel.html.

[DCMI-NAMESPACE] Andy Powell, Harry Wagner, Stuart Weibel, Tom
Baker, Tod Matola, Eric Miller, Namespace policy for the Dublin
Core Metadata Initiative,
http://dublincore.org/documents/2001/09/17/dcmi-namespace/.

DCMI-Government Working Group

Title:	**DC-GOV APPLICATION PROFILE**
Creator:	Maewyn Cumming
Creator:	Andrew Wilson
Creator:	Palle Aagaard
Date Issued:	2001-03-14
Identifier:	http://www.dublincore….
Replaces:	none
Is Replaced By:	Not Applicable
Latest version:	http://www.dublincore.org/groups/government/profile-200111.shtml
Status of document:	This is a Dublin Core Metadata Initiative Government Working Group final proposal for submitting to the DCMI Usage Board after agreement in DC Government WG.
Description of document:	Dublin Core is already being used by practically all governments that are attempting to improve access to their information. However, though seen as the ideal starting point, it is not sufficient for varied and specialised needs. This proposal propose new qualifiers to the Dublin Core recommendation for making the Dublin Core Government Application Profile. This proposal also suggest some encoding schemes connected to certain elements. This proposal assumes that the element "Audience" is functioning as the 16th Dublin Core element. This "DC-DOV Application Profile" is intended to be used by governments who will set up their own national metadata Application Profile using Dublin Core.

Element Qualifier Proposal: Date Acquired

Qualified element Namespace	http://purl.org/dc/elements/1.1/
Qualified element Name	date
Element Qualifier Namespace	http://purl.org/dc/terms
Element Qualifier Name	acquired
Element Qualifier Label	Acquired
Element Qualifier Status	Domain-specific: Dublin Core Government Application Profile
Element Qualifier Definition	Date on which the resource was received into the organisation
Element Qualifier Comment	This qualifier is important for resource discovery as well as ERM
Element Qualifier Encoding Schemes	W3CDTF
Element Qualifier Examples	In a resource discovery process (Search & Retrieval) for resources in a specific agency, users (e.g. journalist) can have a need for knowing exactly when the agency was aware of the content of a specific resource. The status of a resource can change when it is submitted by one authority to another (e.g. in legislative procedures) without necessarily any change being made to the content of that resource.

Element Qualifier Proposal: Rights SecurityClassification

Qualified element Namespace	http://purl.org/dc/elements/1.1/
Qualified element Name	rights
Element Qualifier Namespace	http://purl.org/dc/terms
Element Qualifier Name	securityClassification
Element Qualifier Label	Security Classification
Element Qualifier Status	Domain-specific: Dublin Core Government Application Profile
Element Qualifier Definition	The classification allocated to the resource indicating its official security status
Element Qualifier Comment	This classification is part of the description of the resource. In a resource discovery context it is vital information for the user about the possibility for access to the resource.
Element Qualifier Encoding Schemes	Local (e.g. national or agency) encoding schemes can be used. Free text can be used. No DCMI value qualifier is proposed.
Element Qualifier Examples	Will be needed e.g. on intranets where resources with a variety of classifications will be stored but also on metadata databases designed to indicate that an information resource exists even if it is not actually available to the public. This can be needed to meet access to information legislation requirements. A citizen-user finds by search a reference to a classified resource. The classification status tells the user why access is not possible A non-citizen-user, e.g. employed in an agency, finds by search a reference to a security classified resource. This user can have a need to see how the resource is security classified.

Element Qualifier Proposal: Rights Access Rights

Qualified element Namespace	http://purl.org/dc/elements/1.1/
Qualified element Name	rights
Element Qualifier Namespace	http://purl.org/dc/terms
Element Qualifier Name	accessRights
Element Qualifier Label	Access Rights
Element Qualifier Status	Domain-specific: Dublin Core Government Application Profile
Element Qualifier Definition	Defining which user-groups can access the resource
Element Qualifier Comment	For describing which user-groups have access to the resource, e.g. public, e.g. internal, e.g. department. Can contain information on the resource's status regarding access for users under any information access or privacy laws or regulation. Note that this differs from the official security marking given in the 'security classification' refinement. But 'Access Rights' can be related to 'Security Classification'.
Element Qualifier Encoding Schemes	Local (e.g. national or agency) encoding schemes can be used. Free text can be used. No DCMI value qualifier is proposed.
Element Qualifier Examples	A user finds by search a reference to a resource. If the user can not access the resource, the user can see who can. A user, particularly in a government information situation, may be looking specifically for items only available to a particular user group, or denied to a user group.

Element Qualifier Proposal: Subject Classification

Qualified element Namespace	http://purl.org/dc/elements/1.1/
Qualified element Name	subject
Element Qualifier Namespace	http://purl.org/dc/terms
Element Qualifier Name	classification
Element Qualifier Label	Classification
Element Qualifier Status	Domain-specific: Dublin Core Government Application Profile
Element Qualifier Definition	Term or code from a controlled vocabulary or scheme designed to aid browsing and search by subject matter
Element Qualifier Comment	Typically taken from a high-level subject scheme or encoded classification system. Differs from Subject Keyword in that it requires a broad heading not a specific subject descriptor. It should be possible to use Keyword and Classification in conjunction. Data in this refinement can also be used as the basis of a 'push' system, to classify documents for current awareness services.
Element Qualifier Encoding Schemes	Local (e.g. national or agency) encoding schemes – e.g. category lists or classification schemes - can be used. No DCMI value qualifier is proposed for eGovernment.
Element Qualifier Examples	A user want to perform a 'broader search'. This user is not familiar with proper names of classification schemes. It is possible to make a specific search input field – based on Subject Classification - at search engines, which then facilitates 'broader search'. This means the mentioned user can use such a field for 'broader search' without knowing anything about the names and nature of the schemes. Classification can be used to create dynamic browsing menus, of the type popularised by Yahoo. Electronic systems can identify the correct resources for each subject heading by locating it in this space. Combining a search on Classification values and other subject terms (metadata or free text) can give much more accurate search results.

Element Qualifier Proposal: Subject Keyword

Qualified element Namespace	http://purl.org/dc/elements/1.1/
Qualified element Name	subject
Element Qualifier Namespace	http://purl.org/dc/terms
Element Qualifier Name	keyword
Element Qualifier Label	Keyword
Element Qualifier Status	Domain-specific: Dublin Core Government Application Profile
Element Qualifier Definition	Terms describing the specific subjects of the resource
Element Qualifier Comment	Will be used, in conjunction with subject classification. Will be terms or phrases. Can be used for coordinated indexing of resources.
Element Qualifier Encoding Schemes	Local (e.g. national or agency) encoding schemes – e.g. thesauri or controlled vocabularies - can be used. Uncontrolled terms can also be used. No DCMI value qualifier is proposed for eGovernment.
Element Qualifier Examples	A user wants to perform a narrow or 'specific search'. It is possible to make a specific search input field – based on Subject Keyword - at search engines, which then facilitates 'narrow search'. This means the mentioned user can use such a field for 'narrow search' without knowing anything about the names and nature of the schemes.

Scheme Proposal for: Element Audience

Element Namespace	http://purl.org/dc/terms
Element Name	Audience
Element Label	Audience
Scheme Name	Life-cycle
Scheme Definition	A category of user for whom the resource is intended
Scheme Status	Domain-specific: Dublin Core Government Application Profile
Scheme Comment	Creators and publishers of government resources can explicitly state the category of user for whom the resource is intended. Can also be used for automatic linking into a menu at a public information web-site. These web-sites can be arranged according to a 'life-situation' ("what to do when I have a child?", "what to do when I will get married?" etc.). The 'life-situation' or 'life-cycle' perspective is often used in connection with public information
Values of Encoding Scheme	Local (e.g. national or agency) encoding schemes for the 'Life-cycle' can be used. Only a DCMI Scheme name is proposed for eGovernment at the moment.
Examples **Scheme Example**	A citizen wants to find public information about rules for schools. A citizen's parent is dead. What to do then? Business has to be closed. What to do then? Web-related public information is by some government agencies arranged according to a 'life-cycle' approach. Below is examples of some life-situations for citizens and for business. These life-situations are arranged in a scheme called 'Life-cycle': Citizen situation • For those who are going to have a child • For those who shall use kindergarten • For those who will know about schools • For those who will take an education • For those who are moving from home • For those who need work-related information • For those who need information about marriage and

	related
	• For those who need information about elderly people and related
	• For those who need information connected to death in the family and related
	Business situation
	• For those who starts business
	• For those who need information about relations with government
	• For those who are closing down

DCMI Type Vocabulary

Scheme Proposal for: Element Type

Element Namespace	http://purl.org/dc/elements/1.1/
Element Name	type
Element Label	Type
Scheme Name	Aggregation-level
Scheme Definition	The resource's level or position in a hierarchy. Shows the extent to which the resource is part of a larger resource or collection
Scheme Status	Domain-specific: Dublin Core Government Application Profile
Scheme Comment	Used for describing the resources. If it is e.g. a single document or e.g. the access to a complete library. The definition of the value 'collection' is similar to same value in the original "DCMI Type Vocabulary".
Values of Encoding Scheme	- Document (a single document, e.g. a letter) - Folder (a 'case'-file) - Volume (a subdivision of a file or folder - MoReq definition) - Bibliographic item - Collection (e.g. an archive, a library)
Examples	When the user by search finds references to resources, the user will get information about if it is e.g. the reference to a single page (e.g. web-page) or the homepage of a complete library

[Home](#) > [Usage](#) > [Decisions](#) > [2001](#) >

TO:	Palle Aagaard, Co-chair, DC-Government Working Group Andrew Wilson, Co-chair, DC-Government Working Group
FROM:	DCMI Usage Board
DATE:	23 November 2001
RE:	[UB Decision No. 2] Usage Board decisions on DC-Government proposal

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The DCMI Usage Board reviewed the DC-Government proposal and application profile at a meeting in Tokyo on Monday, 22 October 2001. Members present were Tom Baker (chair), Diane Hillmann, Traugott Koch, Haruki Nagata, Andy Powell, Roland Schwaenzl, and Stuart Sutton (designated shepherd of the DC-Government proposal). This memo holds our official response to the DC-Government Working Group. It includes both comments on the DC-Government application profile as a whole and a response on proposals contained therein for new DCMI metadata terms.

As discussed below, the Board is asking the DC-Government Working Group to resubmit a number of its DCMI term proposals for re-consideration. In preparing such proposals, please refer to the appropriate sections of the Usage Board Administrative Process document at http://www.dublincore.org/usage/documents/process/ (especially sections 3.2 and 3.3).

As this was just the second proposal of an application profile to come before the Usage Board, we were obliged to clarify our processes and evaluation criteria in this regard. This proposal reached us just four days before the meeting, so we could not prepare as well as we would have liked. As discussed below, more explicit guidelines for evaluating application profile proposals are under development. We ask you to please bear with us as we work this out together.

1. Proposals for new DCMI metadata terms

Proposed Qualifier	Usage Board Decision

acquired (for Date)	No recommendation issued
isBasedOn (for Relation)	Request to clarify and resubmit
isBasisFor (for Relation)	Request to clarify and resubmit
accessRights (for Rights)	Request to clarify and resubmit
accessMarking (for Rights)	Request to clarify and resubmit
copyright (for Rights)	Request to clarify and resubmit
previousAccessMarking (for Rights)	No recommendation issued
previousAccessMarkingChangeDate (for Rights)	No recommendation issued
category (for Subject)	No recommendation issued
keyword (for Subject)	Request to clarify and resubmit
aggregationLevel (for Type)	No recommendation issued
dossierType (for Type)	No recommendation issued
itemType (for Type)	No recommendation issued

As the Digest of Usage Board DCMI Namespace Decisions above indicates, the Board's decisions fall into two categories: (1) requests for clarification and resubmission, and (2) instances where no DCMI recommendation was issued.

1.1. Requests to clarify and resubmit

The profile submitted by the DC-Government Working Group followed the model provided by the draft profile of the DC-Libraries Working Group; the guidelines for application profiles under development will be roughly consistent with this. As

presented, however, the proposal did not provide enough documentation to support a full review of metadata term proposals. For the following proposed terms, therefore, additional information (as outlined in Parts 3.2 and 3.3 of http://www.dublincore.org/usage/documents/process/) has been requested. In several instances, the Board has requested information beyond that required by the Process document.

1.1.1. isBasedOn and isBasisFor (for Relation)

The Board recognizes both "isBasedOn" and "isBasisFor" as valid refinements of "Relation". However, it finds the definition to be imprecise and inconsistent with the examples provided. The Board believes there is likelihood of confusion between the proposed pair of qualifiers and the existing pair "hasVersion" and "isVersionOf". The Board therefore asks the Working Group to provide a new and clearer definition of the "isBasedOn" set or perhaps to propose changes in the wording of "isVersionOf" and "hasVersion" to better convey the distinction that the Working Group intends. Such an exploration should engage the broader DCMI community -- perhaps through discussions on DC-General.

Finally, as noted by the Working Group in its best practice statement, the Board has some concerns over potential confusion of these proposed "Relation" qualifiers and the "Source" element. In its resubmission, the Working Group may wish to expand its best practice statement that these proposed "Relation" qualifiers are preferred over the use of "Source."

1.1.2. accessRights, accessMarking, and copyright (for Rights)

All three appear to be acceptable qualifiers of the "Rights" element. However, the information provided was insufficient to support a DCMI recommendation -- hence the request for clarification and resubmission with close attention to Parts 3.2 and 3.3 of http://dublincore.org/usage/documents/process/. The proposed DC-Libraries profile may contain a "copyright" qualifier for "Date", so DC-Government Working Group should perhaps liaise with this other Working Group on possible overlap. The resubmission should make very clear the appropriate sorts of literal values expected for "copyright."

1.1.3. keyword (for Subject)

The Board finds the proposal a bit confusing as presented. First, DDC is listed as an example but does not embody keywords as defined in the proposal. The Board felt that a new definition was needed. An additional and perhaps larger concern for the Board is the need for the Working Group to clarify the differences between an unqualified use of "Subject" and the proposed keyword refinement.

1.2. No DCMI Recommendation issued

Under Part 4.6 (Categories of recommendation) of http://dublincore.org/usage/documents/process/, the Board may issue a recommendation for a metadata term with one of three statuses: Cross-Domain, Domain-Specific, or Obsolete. There is no status for terms that are not recommended -- in essence, the Board either issues a recommendation or it does not. Where the Board does not issue a recommendation, an explanation of its decision is provided.

1.2.1. acquired (for Date)

The Board sees "acquired" as a valid refinement of the concept "Date". However, it sees this refinement as administrative in nature as opposed to discovery-oriented, and (as such) as outside the current scope of DCMI. The Board sees several alternatives available to the DC-Government Working Group: (1) to use a term for "acquired" from a different existing (non-DCMI) namespace; (2) to create a new (non-DCMI) namespace to be referenced in the DC-Government application profile; and/or (3) to liaise with the DCMI Administration Working Group as it addresses the issue of administrative metadata within the mission of DCMI.

1.2.3. previousAccessMarking (for Rights)

The Board sees "previousAccessMarking" as administrative in nature and not intended for resource discovery. As such, it is beyond the mission of DCMI. The Board suggests that the DC-Government Working Group liaise with the DCMI Administration Working Group, as above.

1.2.4. previousAccessMarkingChangeDate (for Rights)

While a case might be made that "previousAccessMarkingChangeDate" could function as a refinement of the "Date" element, the Board does not see it as a valid refinement of the "Rights" element.

1.2.5. category (for Subject)

The Board sees "category" as potentially a valid refinement of the "Subject" element. However, the Usage Board generally prefers to see such needs met by using encoding schemes, e.g., qualfiers for domain-specific vocabularies (see Appendix A below).

1.2.6. aggregationLevel, dossierType, and itemType (for Type)

The Board sees these as valid refinements to "Type". Given the examples provided, however, it appears to the Board that the need could be handled through using one or more domain-specific value encoding schemes.

2. The DC-Government Application Profile

As noted above, the Usage Board does not yet have formal guidelines for evaluating application profiles, but the DC-Government proposal has provided useful input towards their formulation. Since the Board assumes that the DC-Government Working Group will be submitting a revised application profile in the near future, it offers the following words as informal advice. The discussion begins with several general observations applicable to most of the element and qualifiers cited in the proposal and concludes with brief comments on each term individually. Attached in Appendix B are further discussion notes from our meeting in Tokyo.

2.1. Element and qualifier definitions

The formal guidelines for application profiles will detail the ways in which a term used from a vocabulary may be annotated with application-specific comments that specify how a term is used in a particular application or domain. At present, there is ongoing discussion about whether it is helpful or misleading to call these annotations "definitions"; in principle, an application profile should at any rate not re-"define" metadata terms in ways that violate the scope or intention of the terms as defined originally.

2.2. Element and qualifier comments

"Comments" are taken to be statements regarding the application of the element or qualifier as defined. Where an application profile does not narrow the original definition of an element or qualifier, there is no need for a domain-specific comment. Where domain-specific comments were provided in the DC-Government application profile in the absence of a domain-specific narrowing of the definition, the text would be best put into the Best Practices section of the table.

2.3. Permissible values

Many of the encoding schemes of use to DCMI-based applications will be registered with DCMI using the processes outlined in the draft Guidelines for Vocabulary and Encoding Scheme Qualifiers at http://www.dublincore.org/usage/documents/vocabulary-guidelines/. Practice communities registering an application profile with DCMI should promote schemes that are formally registered in order to promote consistent use of scheme names across DCMI-based applications.

2.4. Comments on elements and qualifiers cited in the profile

Element Element Qualifier	Comment

Audience	The application profile puts forward an "Audience" element as a new DCMI element. There is no need to do so since the Board approved an "Audience" element for the http://purl.org/dc/terms/ namespace.
Contributor	Satisfactory (subject to the general comments)
Spatial	Satisfactory (subject to the general comments)
Temporal	Satisfactory (subject to the general comments)
Creator	Satisfactory (subject to the general comments) While the comments suggest administrative goals well beyond discovery, it appears that any possible literals would not be inappropriate.
Date	Satisfactory (subject to the general comments)
Description	Satisfactory (subject to the general comments)
Format	Satisfactory (subject to the general comments)
Identifier	Satisfactory (subject to the general comments) Note: ISBN and ISSN should be registered.
Language	Satisfactory (subject to the general comments)
Publisher	Publisher Satisfactory (subject to the general comments) Note: Move the DC-Government definition to "Best Practice" and possibly change 'is' to 'may be'
Relation	Satisfactory (subject to the general comments) Note: Remove reference to "aggregationLevel" in DC-Government definition since no recommendation has been issued.
isPartOf	Satisfactory (subject to the general comments) Note: Remove reference to"aggregationLevel" since no recommendation issued.
Rights	Satisfactory (subject to the general comments)
Source	Satisfactory (subject to the general comments)
Subject	Satisfactory (subject to the general comments)
Title	Satisfactory (subject to the general comments) Note: Liaise with DC-Libraries Working Group regarding the dropping of initial articles in titles since their proposal is conflicting with yours.
Type	Satisfactory (subject to the general comments)

APPENDIX A:
A DRAFT DECISION TREE FOR ASSESSING THE NEED FOR NEW METADATA TERMS

In addition to the criteria for evaluation of DCMI namespace proposals as set out in the Usage Board Administrative Processes document, the Usage Board is considering the following Action Chart (or decision tree) in assessing alternative ways for a practice community to meet a clearly defined metadata resource discovery need. The Chart sets out a series of conditions starting from the least disruptive condition for metadata interoperability and ending with the most disruptive. Thus, Condition 1 is to be preferred over Condition 2 and Condition 2 over Condition 3, etc. Only when the need cannot be solved through one of Conditions 1 through 3 should a community of practice propose a new domain-specific element and element qualifiers.

ACTION CHART (DECISION TREE)

Condition 1: Can the community of practice's need be solved with a value qualifier (i.e., through a domain-specific vocabulary) for an existing DCMI element or element qualifier?

If so, do that; else...

Condition 2: Can the community of practice's need be solved through an application profile that references an element or element qualifier from an existing and recognized non-DCMI namespace?

If so, do that; else ...

Condition 3: Can the community of practice's need be solved with a new domain-specific qualifier for an existing DCMI element?

If so, do that; else ...

Condition 4: Create a new domain-specific DCMI element (and, if necessary, element and value qualifiers) to meet community of practice's need.

APPENDIX B:
SOME DRAFT THOUGHTS ON USAGE BOARD REVIEW OF APPLICATION PROFILES, BASED ON DISCUSSION IN TOKYO

Review of an application profile will be limited to two aspects:

1. whether the application profile as a whole is "well-formed" according to a formal definition (yet to be finalized);
2. whether any new terms put forward for inclusion under the DCMI namespace adhere to DCMI principles and criteria. Beyond these two matters, the Usage Board will generally defer to the expertise of the practice community. An application profile that meets the criteria of such a limited review will be formally "registered" with DCMI (not "recommended").

This process suggests that a community of practice wishing to put forward an application profile must distinguish between a new DCMI namespace proposal and a proposed application profile that uses those terms. Therefore, an application profile proposal that includes proposals for new DCMI terms will need to present these proposals separately. These could be presented at the same time so long as the supporting documentation for the two different types of proposals were complete.

As of 23 November, the latest draft Usage Board Process, which details the information needed for a DCMI term proposal, can be found at http://128.253.121.110/DC-UB/DC-UBprocess4.html. This document is currently undergoing extensive revision and expansion and will eventually include guidelines for application profiles -- a more detailed presentation of the ideas outlined here.

In general, application profiles may reference elements from established non-DCMI vocabularies. The Board encourages the reuse of established non-DCMI elements where this meets the needs of a practice community. However, the Usage Board considers recommendation of non-DCMI terms as beyond its jurisdiction per se. Rather, it will generally defer in such cases to the expertise of the practice community.

Valid XHTML 1.0! W3C CSS

Metadata associated with this resource: http://dublincore.org/usage/decisions/2001/government-02.shtml.rdf

DC-Government Application Profile

Title   Government Application Profile
Creator   Maewyn Cumming
                        Contributor   Palle Aargaard; Makx Dekkers; Paul Murphy; Peter Pappamikail, John Borras, DC-Gov
Date Issued   2001-09-17
Identifier
Replaces   Not applicable
IsReplacedBy   Not applicable
Status of document   This is a DCMI Working draft
                        Description   This proposal is for an application profile that clarifies the use of Dublin Core in a public administration context. It was prepared by the Managing Information for e-Government (MIReG) group in conjunction with the DC-Gov Working Group.

Contents
1. Introduction
2. Namespaces and Format of entries
3 DC-Extensions and additions
4. DC-Government Application Profile

1. Introduction

This document proposes a possible application profile to clarify the use of the Dublin Core Metadata Element set by public administrations and in public sector-related applications and projects. The proposal is submitted by the Dublin Core Government Working Group to the Dublin Core Usage Board. The content of this document is intended to reflect the consensus reached within DCGov for a minimal extension set.

Metadata in the public sector

Dublin Core is already being used by practically all public administrations that want to use metadata to improve access to their information.

However, though seen as the ideal starting point, Dublin Core is not sufficient for our varied and specialised needs. It doesn't cater for data security, or the requirements of data protection or freedom of information legislation, nor the need for information audit trails, or the complex legislative processes.

It is therefore necessary to advance on two inter-connected fronts:
- the development of an extension to DC to create an element set comprehensive enough to cope with the job in hand;
- the development of an appropriate metadata framework , including application profiles,

encoding schemes and indications of best practice, that administrations can subsequently use to support the proposed extended metadata set.

The DC-Gov working group has therefore joined forces with the MIReG Advisory Board to advance the extension; MIReG is part of the European Union IDA Programme (Interchange of Data between Administrations) for 2001, charged with producing an EC metadata framework. The MIReG Advisory Board consists of
*   John Borras - UK Office of the e-Envoy
*   Peter Pappamikail, European Parliament, ParlML project
*   Palle Aagaard, Danish State Information Service
*   Makx Dekkers, Luxembourg, Managing Director, DCMI
*   Paul Murphy, European Commission, IDA Programme
*   Maewyn Cumming, UK Office of the e-Envoy.

MIReG also works with CEN (European Standards Organisation) to help its Metadata for MultiMedia Information - Dublin Core (MMI-DC) Workshop. The Dublin Core Government working group will likewise continue to work over the next year with other interested parties to clarify and quantify the various issues and develop further proposals as necessary.

The extension to DC is the subject of the present submission; The metadata framework is exclusively the concern and remit of MIReG and will develop in consequence of the first.

2. Namespaces and Format of entries

The DC-Government Application Profile consists of several namespaces:

- Dublin Core Metadata Element Set, Version 1.1 [DCMES version 1.1]
- Dublin Core Qualifiers [DCMES Qualifiers (2000-07-11)]
- DC-Gov Metadata Element Set (DC-GOVMES)
- DC-Gov Metadata Element Set Qualifiers (DC-GOVMES Qualifiers)

Format of entries:

Name	The unique token assigned to the qualifier
Label	The human-readable label assigned to the qualifier.
Choice of Namespace	DCMES version 1.1, or DCMES Qualifiers (2000-07-11)
DC Refinement(s)	DC Element Refinements: These qualifiers make the meaning of an element narrower or more specific. A refined element shares the meaning of the unqualified element, but with a more restricted scope.
DC-Gov Refinement(s)	These are domain-specific refinements for DC-Gov.

DC Encoding Scheme(s)	These qualifiers identify schemes that aid in the interpretation of an element value. These schemes include controlled vocabularies and formal notations or parsing rules. A value expressed using an encoding scheme will thus be a token selected from a controlled vocabulary (e.g., a term from a classification system or set of subject headings) or a string formatted in accordance with a formal notation (e.g., "2000-01-01" as the standard expression of a date). If an encoding scheme is not understood by a client or agent, the value may still be useful to a human reader.
DC-Gov Encoding Scheme(s)	These are domain-specific encoding schemes for DC-Gov.
Form of Obligation	In the DC-Gov data model the obligation can be: Mandatory, Mandatory if applicable, Recommended or Optional. "Mandatory" ensures that some of the elements are always supported and "Mandatory if applicable" means that this element must be supported if the information is available. An element with a Mandatory obligation must have a value. The "Recommended" and "Optional" elements should be filled with a value if the information is appropriate to the given resource but if not, they can be left blank.
DC Definition	Dublin Core definition of this metadata field
DC Comment	Dublin Core comments on this metadata field
DC-Gov Definition	DC-Gov definition of this metadata field, if different from the DC definition
DC-Gov Comment	DC-Gov comments on this metadata field
Best practice	Recommendations of best use of this element for DC-Gov
Open questions	Problems, notes, open questions regarding this field

3 DC-Extensions and additions

A summary of the extensions, additions and other changes proposed to the Dublin Core Elements Set

A.   Additional Element

1.   Audience
A class of entity for whom the resource is intended or useful

B. Additional refinements to existing DC elements

1. Date

acquired	Date on which the resource was received into the organisation

2. Relation

isBasedOn	The described resource is a translation, derivation or interpretation of another resource
isBasisFor	The described resource is translated, derived or interpreted by another resource

3. Rights

access marking	Item or notation regulating access to the resource.
previousAccessMarking	Item or notation of immediately preceding marking, if any, at time of change.
accessMarkingChangeDate	Date that the access marking allocated previously to the current accessMarking was changed.
accessRights	Constraints or obligation governing the release of the resource.
copyright	Identifier or statement indicating the legal ownership and rights regarding use of the resource

4. Subject

category	A broad or top level subject categorisation or classification of subject areas.
keyword	Term describing the specific subject of the resource.

5. Type

aggregationLevel	A resource type may be an aggregation of instances of another resource type:
dossierType	Classification of the dossier or collection of items
itemType	Classification of the item, file or document

4. DC-Government Application Profile
Audience

Name	**audience**
Label	Audience
Choice of Namespace:	?
DC-Gov Refinement(s)	-
Form of Obligation	Optional
DC-Gov Definition	A class of entity for whom the resource is intended or useful.
DC-Gov Comment	This element describes the people for whom the resource is aimed, e.g. the educational level, profession etc. It does not indicate rights of access.
Best practice	This element should be left blank unless a specific audience is intended; i.e. there is little to be gained in terms of retrieval by putting 'general public' or 'everyone'.

Open questions	An encoding scheme is needed and will be developed as part of the MIReG project

Contributor

Name	**contributor**
Label	Contributor
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinement(s)	-
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Mandatory if applicable
DC Definition	An entity responsible for making contributions to the content of the resource.
DC Comment	Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.
DC-Gov Definition	-
DC-Gov Comment	Examples of a Contributor include a person or organisation. Typically, the name of a Contributor should be used to indicate the entity.
Best practice	-
Open questions	-

Coverage

Name	**coverage ¦ spatial**
Label	Coverage ¦ Spatial
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	DCMI Point, ISO 3166, DCMI Box, TGN
DC-Gov Encoding Scheme(s)	ISO 191115 Other schemes as appropriate
Form of Obligation	Recommended or Mandatory if applicable
DC Definition	Spatial characteristics of the intellectual content of the resource.
DC Comment	Coverage will typically include spatial location. Recommended best practice is to select a value from a controlled vocabulary.
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	Use Coverage with qualifier Spatial or Temporal.

Open questions	Is there a suitable encoding scheme that meets the level of detail and variety of regions that government information resources cover? Should there be a separate Jurisdiction refinement? Is this really a sub-refinement of Coverage.spatial? Can we have Jurisdiction as a refinement of Creator and Coverage?

Name	**coverage ¦ temporal**
Label	Coverage | Temporal
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	DCMI Period, W3C-DTF
DC-Gov Encoding Scheme(s)	DCMI Period, W3C-DTF
Form of Obligation	Recommended or Mandatory if applicable
DC Definition	Temporal characteristics of the intellectual content of the resource.
DC Comment	Coverage will typically include temporal period.
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	Level of obligation

Creator

Name	**creator**
Label	Creator
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinement(s)	-
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Mandatory
DC Definition	An entity primarily responsible for making the content of the resource.
DC Comment	Examples of a Creator include a person, an organisation, or a service. Typically, the name of a Creator should be used to indicate the entity.
DC-Gov Definition	-

DC-Gov Comment	Examples of a Creator include a person or organisation. Typically, the name of a Creator should be used to indicate the entity. This Agent often has legal responsibilities and obligations, and personal names may be needed for audit trails.
Best practice	Indicate the Creator as specifically as possible, e.g. include not only the organisation but also the section, department or team and individual as applicable.
Open questions	Do we need qualifiers for the Jurisdiction and Function of the Creator?

Date

Name	**date**
Label	Date
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	Created, Valid, Available, Issued, Modified
DC-Gov Refinement(s)	Acquired, Created, Valid, Available, Issued, Modified,
DC Encoding Scheme(s)	W3CDTF, DCMI Period
DC-Gov Encoding Scheme(s)	W3CDTF, DCMI Period
Form of Obligation	Mandatory if applicable
DC Definition	A date associated with an event in the life cycle of the resource.
DC Comment	Typically, date will be associated with the creation or availability of the resource. Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and follows the YYYY-MM-DD format.
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	A refinement should always be used.
Open questions	Do we accept the Date element without refinement? How to deal with inadequacies of the possible encoding schemes? There are limitations in conveying: 1) BCE dates; 2) non-Gregorian calendar dates; 3) ambiguity, approximation (e.g., about, near, flourished, assumed); 4) partially known dates (e.g., 19??); 5) date is unknown/unavailable; 6) open-ended intervals (e.g., 1999-); 7) complex, multi-instance/period intervals. Are there conventions (e.g. bracket, slash, etc.) or other encoding schemes we want to specify to allow for these limitations?

Date

Name	**date ┆ acquired**

Label	Date ⦙ Acquired
Choice of Namespace:	?
DC Refinement(s)	-
DC-Gov Encoding Scheme(s)	W3CDTF
DC Definition	Date on which the resource was received into the organisation.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	The nature of a resource can change when it is submitted by one authority to another, (e.g. in legislative procedures) without necessarily any change being made to the content of that resource. EXAMPLE: The date that a legislative text is tabled for consideration (=date of acquisition by the House) is not the same as the date the resource is adopted (by the submitting or receiving authority).
Best practice	-
Open questions	-

Date

Name	**date ⦙ created**
Label	Date | Created
Choice of Namespace	DCMES Qualifiers (2000-07-11)
DC Encoding Scheme(s)	W3CDTF
DC-Gov Encoding Scheme(s)	W3CDTF
DC Definition	Date of creation of the resource.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Date

Name	**date ⦙ valid**
Label	Date | Valid
Choice of Namespace	DCMES Qualifiers (2000-07-11)
DC Encoding Scheme(s)	W3CDTF, DCMI Period
DC-Gov Encoding Scheme(s)	W3CDTF, DCMI Period
DC Definition	Date (often a range) of validity of the resource.
DC Comment	-

DC-Gov Definition	-
DC-Gov Comment	-
Best practice	?
Open questions	-

Date

Name	**date ¦ available**
Label	Date | Available
Choice of Namespace	DCMES Qualifiers (2000-07-11)
DC Encoding Scheme(s)	W3CDTF, DCMI Period
DC-Gov Encoding Scheme(s)	W3CDTF, DCMI Period
DC Definition	Date (often a range) that the resource will be or did become available.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Date

Name	**date ¦ issued**
Label	Date | Issued
Choice of Namespace	DCMES Qualifiers (2000-07-11)
DC Encoding Scheme(s)	W3CDTF
DC-Gov Encoding Scheme(s)	W3CDTF
DC Definition	Date of formal issuance (e.g. publication) of the resource.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	A unique date, rather than a range, on which a resource was published or otherwise made available. Includes date resource was put onto a web site. The Time of issue may also be needed e.g. where the item was subject to a press embargo.
Best practice	
Open questions	

Date

Name	**date ¦ modified**
Label	Date | Modified

Choice of Namespace	DCMES Qualifiers (2000-07-11)
DC Encoding Scheme(s)	W3CDTF
DC-Gov Encoding Scheme(s)	W3CDTF
DC Definition	Date on which the resource was changed.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Description

Name	**description**
Label	Description
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	Table of contents ; Abstract
DC-Gov Refinement(s)	Table of contents ; Abstract
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Recommended
DC Definition	An account of the content of the resource.
DC Comment	Description may include but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.
DC-Gov Definition	-
DC-Gov Comment	The description could cover approach to subject (e.g. critique, explanation, beginners guide), reason for production of resource, (e.g. to inform, invite discussion, record events), groups and organisations referred to, events covered, list of key fields (database) or chapters, any other useful information
Best practice	-
Open questions	-

Format

Name	**format**
Label	Format
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	Extent; Medium
DC-Gov Refinement(s)	Extent; Medium

DC Encoding Scheme(s)	IMT
DC-Gov Encoding Scheme(s)	IMT Other schemes as appropriate
Form of Obligation	Recommended
DC Definition	The physical or digital manifestation of the resource.
DC Comment	Typically, Format may include the media-type or dimensions of the resource. Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Identifier

Name	**identifier**
Label	Identifier
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinement(s)	-
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI, ISBN, ISSN Other schemes as appropriate
Form of Obligation	Mandatory
DC Definition	An unambiguous reference to the resource within a given context.
DC Comment	Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Example formal identification systems include the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI) and the International Standard Book Number (ISBN).
DC-Gov Definition	-
DC-Gov Comment	Other possible identifiers are the ISO 8879 FPI (Formal Public Identifier) -
Best practice	Use best practice statement as above.

Open questions	Should ISBN, ISSN be used as encoding schemes? How to deal with internal identifiers – we could build on EC work developing a hierarchical scheme for identifiers, adding identifiers for country/organisation/item to create a unique identifier. How to indicate sub-sections of documents and serials, e.g. specific chapters or clauses of Acts?

Language

Name	**language**
Label	Language
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	
DC-Gov Refinement(s)	
DC Encoding Scheme(s)	ISO 639-2/B, RFC3066
DC-Gov Encoding Scheme(s)	ISO 639-2/T, ISO 639-2/B
Form of Obligation	Mandatory if applicable
DC Definition	A language of the intellectual content of the resource.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	Use codes rather than text. Use ISO 639-2/T for preference.
Open questions	-

Publisher

Name	**publisher**
Label	Publisher
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinement(s)	-
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Recommended
DC Definition	An entity responsible for making the resource available.
DC Comment	Examples of a Publisher include a person, an organisation, or a service. Typically, the name of a Publisher should be used to indicate the entity.

DC-Gov Definition	The publisher is the entity to whom one should go to obtain copies of a resource, be they printed versions of an on-line resource or printed copies of an off-line resource. The publisher is also the entity one should approach for permission to reuse or republish the resource.
DC-Gov Comment	-
Best practice	A publisher has certain legal responsibilities regarding the information, so should always be named.
Open questions	-

Relation

NOTE – qualifiers appear here in pairs, to save space

Name	**relation**
Label	Relation
Choice of Namespace	DCMES version 1.1
DC Refinements	Is Version Of, Has Version, Is Replaced By, Replaces, Is Required By, Requires, Is Part Of, Has Part, Is Referenced By, References, Is Format Of, Has Format
DC-Gov Refinements	Is Version Of, Has Version, Is Basis for, Is Based On, Is Replaced By, Replaces, Is Required By, Requires, Is Part Of, Has Part, Is Referenced By, References, Is Format Of, Has Format,
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
Form of Obligation	Optional
DC Definition	A reference to a related resource.
DC Comment	Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.
DC-Gov Definition	-
DC-Gov Comment	If using qualifiers, use the most specific one that is applicable. Relation can be used to allow cascading retrieval of interrelated objects, especially if used in conjunction with the Type.aggregationLevel element.
Best practice	-
Open questions	-

Relation

Name	**relation ¦ isVersionOf / hasVersion**
Label	Relation	Is Version Of / Has Version
Choice of Namespace	DCMES Qualifiers

DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	The described resource is a version, edition, or adaptation of the referenced resource. Changes in version implies substantive changes in content rather than differences in format.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Name	**relation ¦ isBasedOn / isBasisFor**
Label	Relation ¦ Is Based On / Is Basis For
Choice of Namespace:	?
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	
DC Comment	
DC-Gov Definition	The described resource is a translation, derivation or interpretation of another resource.
DC-Gov Comment	Whereas isVersionOf indicates a 'linear' evolution of a content from one stage to another, isBasedOn indicates a 'transversal' relationship with another resource, either of a similar or same nature in another language or of a completely separate resource that nonetheless has inspired or been used in the creation or evolution of the resource. EXAMPLES. A legal act that 'isBasedOn' a draft legislative proposal and a European Union directive. A press release that IsBasedOn the published research paper.
Best practice	Some confusion has been known between isBasedOn and Source. isBasedOn/isBasisFor allows two-way resource linking, and should be used for preference.
Open questions	Need some good examples here, and perhaps a better definition.

Name	**relation ¦ isFormatOf / hasFormat**

Label	Relation | Is Format Of / Has Format
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	The described resource is the same intellectual content of the referenced resource, but presented in another format.
DC Comment	-
DC-Gov Definition	The described resource is the same intellectual content of the referenced resource, but presented in different physical or digital format.
DC-Gov Comment	-
Best practice	-
Open questions	-

Name	**relation ⁞ isReplacedBy / replaces**
Label	Relation | Is Replaced By / Replaces
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	The described resource is supplanted, displaced, or superseded by the referenced resource.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Name	**relation ⁞ isPartOf / hasPart**
Label	Relation | Is Part Of / Has Part
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	The described resource is a physical or logical part of the referenced resource.
DC Comment	-
DC-Gov Definition	-

DC-Gov Comment	Can be used in conjunction with Type¦Aggregation level to give a clear description of dossiers and collections.
Best practice	-
Open questions	-

Name	**relation ¦ isRequiredBy / requires**
Label	Relation | Is Required By / Requires
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	The described resource requires the referenced resource to support its function, delivery, or coherence of content.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Name	**relation ¦ isReferencedBy / references**
Label	Relation | Is Referenced By / References
Choice of Namespace	DCMES Qualifiers
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
DC Definition	The described resource is referenced, cited, or otherwise pointed to by the referenced resource.
DC Comment	-
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	-
Open questions	-

Rights

Name	**rights**
Label	Rights
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinement(s)	Access Marking, Previous Access Marking, Previous Access Marking Change Date, Access Rights, Copyright

DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Mandatory if applicable
DC Definition	Information about rights held in and over the resource.
DC Comment	Typically, a Rights element will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights.
DC-Gov Definition	-
DC-Gov Comment	The rights element is used to indicate security markings, as well as legal and other obligations and restrictions on access to the resource.
Best practice	-
Open questions	-

Rights

Name	**rights ¦ accessMarking**
Label	Rights ¦ Access Marking
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
DC Definition	-
DC Comment	-
DC-Gov Definition	Item or notation regulating access to the resource.
DC-Gov Comment	The security or access classification of the resource EXAMPLES: Secret, Confidential-within-administration, Public
Best practice	-
Open questions	-

Name	**rights ¦ previousAccessMarking**
Label	Rights ¦ Previous Access Marking
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
DC Definition	-

DC Comment	-
DC-Gov Definition	Item or notation of immediately preceding marking, if any, at time of change.
DC-Gov Comment	Repeated us of this refinement and the Previous Access Marking Change Date provide an access status history of the resource.
Best practice	-
Open questions	-

Rights

Name	**rights ¦ previousAccessMarkingChangeDate**
Label	Rights ¦ Previous Access Marking Change Date
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	W3CDTF
DC Definition	-
DC Comment	-
DC-Gov Definition	Date that the access marking allocated previously to the current AccessMarking was changed .
DC-Gov Comment	Date of the change indicated in the preceding refinement.
Best practice	-
Open questions	-

Rights

Name	**rights ¦ accessRights**
Label	Rights ¦ Access Rights
Choice of Namespace:	?
DC-Gov Encoding Scheme(s)	-
DC Definition	-
DC Comment	-
DC-Gov Definition	Constraints or obligation governing the release of the resource.
DC-Gov Comment	Indicates the legal or other basis which governs public access to the resource. EXAMPLE: Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (http://europa.eu.int/eur-lex/en/lif/dat/2001/en_301R1049.html)
Best practice	-
Open questions	Do we need an encoding scheme?

Name	**rights ¦ copyright**
Label	Rights ¦ Copyright
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
DC Definition	-
DC Comment	-
DC-Gov Definition	Identifier or statement indicating the legal ownership and rights regarding use of the resource.
DC-Gov Comment	-
Best practice	Link to a standard description of rights such as the Crown copyright notice at www.hmso.gov.uk/docs/copynote.htm
Open questions	Does this clash with the DC-Lib proposal to have a Date¦Copyright refinement? Would it be better to put the Copyright statement *and* date together in this refinement?

Source

Name	**source**
Label	Source
Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinement(s)	-
DC Encoding Scheme(s)	URI
DC-Gov Encoding Scheme(s)	URI Other schemes as appropriate
Form of Obligation	O
DC Definition	A reference to a resource from which the present resource is derived.
DC Comment	The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.
DC-Gov Definition	-
DC-Gov Comment	Use Relation for preference
Best practice	Reference by means of an identifier
Open questions	

Subject

Name	**subject**
Label	Subject

Choice of Namespace	DCMES version 1.1
DC Refinement(s)	-
DC-Gov Refinements	Category, Keyword
DC Encoding Schemes	LCSH ; MeSH ; DDC ; LCC ; UDC
DC-Gov Encoding Schemes	
Form of Obligation	Mandatory if applicable
DC Definition	The topic of the content of the resource.
DC Comment	Typically, a Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	Use Subject if no encoding scheme is used. An encoding scheme should always be used for either of the refinements.
Open questions	-

Subject

Name	**subject ¦ category**
Label	Subject ¦ Category
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	UK Government Category List Other schemes as appropriate
DC Definition	-
DC Comment	-
DC-Gov Definition	A broad or top level subject categorisation or classification of subject areas.
DC-Gov Comment	Differs from Subject¦Keyword in that it requires a broad heading not a specific subject descriptor. This will be used for browsing systems (Yahoo-type categories) and other circumstances where only a broad heading is needed. It should be possible to use Keyword and Category in conjunction, e.g. to search all items in a given category with given keywords.
Best practice	Value to be taken from either framework-specific or organisation specific taxonomy.
Open questions	Coincides with the proposed DC-Lib Subject¦Classification refinement. Prefer 'Category' as 'Classification' implies an alphanumeric code.

Subject

Name	**subject ¦ keyword**
Label	Subject ¦ Keyword
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	LCSH ; MeSH ; DDC ; LCC ; UDC Other schemes as appropriate
DC Definition	-
DC Comment	-
DC-Gov Definition	Term describing the specific subject of the resource
DC-Gov Comment	Entry would contain the subject to be found at the lowest level of granularity available in a controlled vocabulary or thesaurus and descriptive of the subject matter of the resource.
Best practice	Term from a thesaurus or similar controlled vocabulary.
Open questions	Coincides with the proposed DC-Lib Subject¦Keyword. Requires a specific subject descriptor rather than broad heading. Will be used to aid the mapping of multiple thesauri.

Title

Name	**title**
Label	Title
Choice of Namespace:	DCMES version 1.1
DC Refinement(s)	Alternative
DC-Gov Refinement(s)	Alternative
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Mandatory
DC Definition	A name given to the resource.
DC Comment	Typically, a title will be a name by which the resource is formally known.
DC-Gov Definition	-
DC-Gov Comment	For alternative title add any form of the title used as a substitute or alternative to the formal title of the resource, including abbreviations.
Best practice	Drop initial articles if present
Open questions	-

Type

Name	**type**
Label	Resource Type
Choice of Namespace	DCMES version 1.1

DC Refinement(s)	-
DC-Gov Refinement(s)	-
DC Encoding Scheme(s)	DCMI Type
DC-Gov Encoding Scheme(s)	DCMI Type Other schemes as appropriate
Form of Obligation	Recommended
DC Definition	The nature or genre of the content of the resource.
DC Comment	Type includes terms describing general categories, functions, genres, or aggregation levels for content. Recommended best practice is to select a value from a controlled vocabulary. To describe the physical or digital manifestation of the resource, use the Format element.
DC-Gov Definition	-
DC-Gov Comment	-
Best practice	Use a controlled list and identify the source with encoding scheme.
Open questions	Do we accept the Type element in a unqualified (unencoded) form?

Name	**type ¦ aggregationLevel**
Label	Type ¦ Aggregation Level
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	Collection; Dossier; Item
Form of Obligation	Recommended
DC Definition	-
DC Comment	-
DC-Gov Definition	A resource type may be an aggregation of instances of another resource type.
DC-Gov Comment	This element allows searches to be restricted to records at a particular level of aggregation. It also controls the management actions which may be taken on the record(s). It should be worked in conjunction with Relation¦HasPart. This refinement describes where in the collection hierarchy, if anywhere, a resource sits; the relation indicates what, if any other resources also belong in that hierarchy. Note that it is possible for a 'Folder' or 'collection' level description to exist for a resource which is empty, i.e. it contains no parts. In this instance the hasPart relation would not indicate the level. Nor is it possible to limit a search by Level by using hasPart.

	The entry indicates the level of aggregation.
Best practice	-
Open questions	-

Name	**type ¦ dossierType**
Label	Type ¦ Dossier Type
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Recommended
DC Definition	-
DC Comment	A number of items gathered together into one container or folder.
DC-Gov Definition	Classification of the dossier or collection.
DC-Gov Comment	An example encoding scheme (as used by UK) is Policy; Case; Parliamentary Question; Minister's Case.
Best practice	-
Open questions	-

Name	**type ¦ itemType**
Label	Type ¦ Item Type
Choice of Namespace:	?
DC Encoding Scheme(s)	-
DC-Gov Encoding Scheme(s)	-
Form of Obligation	Recommended
DC Definition	-
DC Comment	-
DC-Gov Definition	Classification of the item, file or document.
DC-Gov Comment	An encoding scheme for government item types will be developed by the MIReG project.
Best practice	-
Open questions	-

Title:	**Library Application Profile**
Creator:	Rebecca Guenther Senior Networking and Standards Specialist Network Development and MARC Standards Office Library of Congress, USA
Date Issued:	2002-04-16
Identifier:	http://dublincore.org/documents/2002/04/16/library-application-profile/
Replaces:	http://dublincore.org/documents/2001/10/12/library-application-profile/
Is Replaced By:	Not applicable
Latest Version:	http://dublincore.org/documents/library-application-profile/
Status of Document:	This is a DCMI Working Draft.
Description of Document:	This document proposes a possible application profile that clarifies the use of the Dublin Core Metadata Element Set in libraries and library-related applications and projects. It was prepared by the DCMI-Libraries Application Profile drafting committee, a subset of the DCMI-Libraries Working Group.

DC-Library Application Profile (DC-Lib)

I. Introduction

The concept of *application profiles* (see Application profiles: mixing and matching metadata schemas) has emerged within the Dublin Core Metadata Initiative as a way to

declare which elements from which namespaces are used in a particular application or project. Application profiles are defined as schemas which consist of data elements drawn from one or more namespaces, combined together by implementors, and optimised for a particular local application.

The DCMI-Libraries Working Group has explored various uses of the Dublin Core Metadata Element Set in library and related applications and has envisioned the following possible uses:

- to serve as an interchange format between various systems using different metadata standards/formats
- to use for harvesting metadata from data sources within and outside of the library domain
- to support simple creation of library catalog records for resources within a variety of systems
- to expose MARC data to other communities (through a conversion to DC)
- to allow for acquiring resource discovery metadata from non-library creators using DC

A *library application profile* will be a specification that defines the following:

- required elements
- permitted Dublin Core elements
- permitted Dublin Core qualifiers
- permitted schemes and values (e.g. use of a specific controlled vocabulary or encoding scheme)
- library domain elements (to be approved)
- library domain qualifiers (to beapproved)
- additional elements/qualifiers from other application profiles that may be used (e.g. DC-Education: Audience)
- refinement of standard definitions

This document proposes a possible application profile that clarifies the use of the Dublin Core Metadata Element Set in libraries and library-related applications and projects. It was prepared by the DCMI-Libraries Application Profile drafting committee, a subset of the DCMI-Libraries Working Group.

2. Namespaces and Format of entries

The DC-Library Application Profile consists of several namespaces:

- Dublin Core Metadata Element Set, Version 1.1 [http://purl.org/dc/elements/1.1/]
- Dublin Core Qualifiers [http://purl.org/dc/terms/]

- DC-Library Metadata Element Set (DC-LMES)
- DC-Library Metadata Element Set Qualifiers (DC-LMES Qualifiers)

Format of entries:

Name	The unique token assigned to the qualifier
Label	The human-readable label assigned to the qualifier.
Choice of Namespace	http://purl.org/dc/elements/1.1/, http://purl.org/dc/terms/, or http://purl.org/dc/dcmitype/ or DC-Library Metadata Element Set = DC-LMES, DC-Library Metadata Element Set Qualifiers = DC-LMES Qualifiers
DC Refinement(s)	DC Element Refinements used in DC-Lib: These qualifiers make the meaning of an element narrower or more specific. A refined element shares the meaning of the unqualified element, but with a more restricted scope.
DC-Lib Refinement(s)	DC-Library refinement, see above; these are domain-specific refinements for DC-Lib.
DC Encoding Scheme(s)	These qualifiers identify schemes that aid in the interpretation of an element value. These schemes include controlled vocabularies and formal notations or parsing rules. A value expressed using an encoding scheme will thus be a token selected from a controlled vocabulary (e.g., a term from a classification system or set of subject headings) or a string formatted in accordance with a formal notation (e.g., "2000-01-01" as the standard expression of a date). If an encoding scheme is not understood by a client or agent, the value may still be useful to a human reader. In some cases, encoding schemes not yet registered that are needed for DC-Lib are indicated. These will be registered as DC Encoding Schemes in the future.
DC-Lib Encoding Scheme(s)	DC-Library encoding scheme; these are only for domain-specific elements or qualifiers.

Form of Obligation	In this application profile the obligation can be: mandatory (**M**), mandatory if applicable (**MA**), strongly recommended (**R**) or optional (**O**). Mandatory "M" ensures that some of the elements are always supported and mandatory if applicable "MA" means that this element must be supported if the information is available. An element with a mandatory "M" obligation must have a value. The strongly recommended and the optional elements should be filled with a value if the information is appropriate to the given resource but if not, they may be omitted.
DC Definition	Dublin Core definition of metadata field
DC Comment	Dublin Core comments to this metadata field
DC-Lib Definition	DC-Library definition of metadata field
DC-Lib Comment	DC-Library comments to this metadata field
Best practice	Recommendations of best use of this element for DC-Lib
Open questions	Problems, notes, open questions regarding this field

3. Table of Contents

General notes, open questions regarding all/some elements, ...

General notes regarding all elements:

- Either a Title or Identifier are mandatory (Identifier is mandatory if applicable).
- If the record is expressed in a format (e.g., HTML) that allows each element/qualifier/scheme value to be
  assigned a language attribute (e.g., the HTML tag lang="en"), the use of the attribute is permitted for any or all DC elements as desired.
- All elements may be used as unqualified. If using qualified Dublin Core, additional guidelines are given
- Encoding schemes are indicated as DC Encoding Schemes even if not currently approved; they will be registered when the mechanism is available. In some cases only one table has been provided for several schemes to be registered.

4. DC-Library Application Profile

Title

Name	Title
Label	Title
Choice of Namespace:	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	-
Form of Obligation	M
DC Definition	A name given to the resource.
DC Comment	Typically, a title will be a name by which the resource is formally known.
DC-Lib Definition	-
DC-Lib Comment	A parallel/transliterated title is considered a main title, i.e. the Title element is repeated.

Best practice	Either a Title or an Identifier is mandatory. If no title is available, best practice is to give a constructed title, derive a title from the resource or supply *[no title]*. If using qualified Dublin Core, an element refinement for titles other than the main title(s) should be included. Retain initial articles and use local sorting algorithms based on language. A language qualifier may be used to indicate language of title if appropriate. (For example, see: Initial Definite and Indefinite Articles for a list of articles in various languages)

Name	**Title ¦ alternative**
Label	Title | Alternative
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Alternative
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	-
Form of Obligation	**R**
DC Definition	Any form of the title used as a substitute or alternative to the formal title of the resource.
DC Comment	This qualifier can include Title abbreviations as well as translations.
DC-Lib Definition	-
DC-Lib Comment	Assigned title such as uniform or key title is Title|Alternative.

Best practice	Best practice is to use this element refinement for titles other than the main title. Retain initial articles and use local sorting algorithms based on language. A language qualifier may be used to indicate language of title if appropriate. (For example, see: Initial Definite and Indefinite Articles for a list of articles in various languages)

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Creator

Name	Creator
Label	Creator
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	
Form of Obligation	O
DC Definition	An entity primarily responsible for making the content of the resource.
DC Comment	Examples of a Creator include a person, an organisation, or a service. Typically, the name of a Creator should be used to indicate the entity.
DC-Lib Definition	An entity with a primary role in the creation of the intellectual or artistic content of the resource.
DC-Lib Comment	
Best practice	Creator and Contributor may be conflated if desired by the application. In that case, Contributor.Creator may be used if desired.

Name	**Creator ¦ role**
Label	Creator | Role
Choice of Namespace	http://purl.org/dc/terms/ (Proposed)
DC Refinement(s)	Role: all values in designated scheme are element refinements for Creator (e.g. Creator|Illustrator)
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	MARC Relator Codes (a value from this scheme may be selected as an element refinement)
Form of Obligation	**MA**
DC Definition	Designation of a function that describes the relationship between a Creator and a resource.
DC Comment	"Role" above is not actually used as the element refinement; rather, a value from the specified list is used to refine this element (e.g. Creator.Illustrator).
DC-Lib Definition	
DC-Lib Comment	Creator and Contributor may be conflated if desired by the application. In that case, Contributor.Creator may be used if desired.
Best practice	
Open questions	Use of role refinements needs discussion by DC-Agents WG. Syntactical issues need to be resolved by DC-Architecture WG.

Name	**Creator¦ DCMIAgentDetail**
Label	Creator | DCMI Agent Detail
Choice of Namespace	http://purl.org/dc/terms/ (Proposed)
DC Refinement(s)	-
DC-Lib Refinement(s)	

DC Encoding Scheme(s)	**DCMIAgentDetail**
Form of Obligation	**O**
DC Definition	Contains additional information about the agent in its capacity as Creator, Contributor or Publisher of the resource being described. It is not intended to describe the agent.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	
Best practice	
Open questions	Use of these structured values needs discussion by DC-Agents WG. Syntactical issues need to be resolved by DC-Architecture WG. These have been submitted for discussion.

Contributor

Name	**Contributor**
Label	Contributor
Choice of Namespace	
DC Refinement(s)	See below
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	
Form of Obligation	**MA**
DC Definition	An entity responsible for making contributions to the content of the resource.
DC Comment	Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.

DC-Lib Definition	
DC-Lib Comment	Creator and Contributor may be conflated if desired by the application.
Best practice	

Name	**Contributor ¦ role**
Label	Contributor | Role
Choice of Namespace	http://purl.org/dc/terms/ (Proposed)
DC Refinement(s)	Role: all values in designated scheme are element refinements for Creator (e.g. Contributor|Illustrator)
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	[MARC Relator Codes](#) (a value from this scheme may be selected as an element refinement)
Form of Obligation	**MA**
DC Definition	Designation of a function that describes the relationship between a Contributor and a resource.
DC Comment	"Role" above is not actually used as the element refinement; rather, a value from the specified list is used to refine this element.
DC-Lib Definition	
DC-Lib Comment	
Best practice	
Open questions	Use of role refinements needs discussion by DC-Agents WG. Syntactical issues need to be resolved by DC-Architecture WG.

Name	**Contributor ¦ DCMIAgentDetail**
Label	Contributor | DCMI Agent Detail

Choice of Namespace	http://purl.org/dc/terms/ (Proposed)
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	**DCMIAgentDetail**
Form of Obligation	**O**
DC Definition	Contains additional information about the agent in its capacity as Creator, Contributor or Publisher of the resource being described. It is not intended to describe the agent.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	
Best practice	
Open questions	Use of these structured values needs discussion by DC-Agents WG. Syntactical issues need to be resolved by DC-Architecture WG. These have been submitted for discussion.

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Publisher

Name	**Publisher**
Label	Publisher
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	
Form of Obligation	**O**
DC Definition	An entity responsible for making the resource available.

DC Comment	Examples of a Publisher include a person, an organisation, or a service. Typically, the name of a Publisher should be used to indicate the entity.
DC-Lib Definition	
DC-Lib Comment	
Best practice	Although some applications may wish to conflate Creator, Contributor and Publisher, DC-Lib maintains the distinction between Creator and Contributor (which may be conflated) and Publisher. If the elements are conflated and Publisher used as an element refinement for Contributor or Creator, the resulting element would be mapped to DC.Publisher.
Open questions	Use of element refinement for role as indicated above for Creator and Contributor needs to be determined; possibly the value "Distributor" may be submitted for approval as a refinement (from MARC Relator codes list). This needs further discussion by DCMI Agent WG.

Name	**Publisher ¦ DCMIAgentDetail**
Label	Publisher	DCMI Agent Detail
Choice of Namespace	http://purl.org/dc/terms/ (Proposed)
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	**DCMIAgentDetail**
Form of Obligation	**O**
DC Definition	Contains additional information about the agent in its capacity as Creator, Contributor or Publisher of the resource being described. It is not intended to describe the agent.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	
Best practice	

Open questions	Use of these structured values needs discussion by DC-Agents WG. Syntactical issues need to be resolved by DC-Architecture WG. These have been submitted for discussion.

Subject

Name	**Subject**
Label	Subject
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	-
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	see below
Form of Obligation	**MA**
DC Definition	The topic of the content of the resource.
DC Comment	Typically, a Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.
DC-Lib Definition	-
DC-Lib Comment	If a geographic or temporal aspect is recorded use the element Coverage. It may also be repeated in Subject if desired. If there is a subject string with elements in addition to a geographic, include the entire string in Subject with geographic element also in Coverage.
Best practice	It is highly recommended that either freetext or controlled vocabulary be included in the metadata where appropriate and feasible. It is also recommended that a controlled vocabulary be used with encoding scheme specified. If no encoding scheme is specified, it is treated as keyword.

Name	Subject ¦ DC encoding scheme(s)
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	LCSH, MeSH, DDC, LCC, UDC
Form of Obligation	MA
DC Definition	
DC Comment	
DC-Lib Definition	
DC-Lib Comment	Note: This table is used for encoding schemes currently defined by DCMI. As additional schemes are registered, they will be included. Additional encoding schemes will be registered for those used in the library domain based on the MARC list of subject and classification schemes. Including an identifier to link to a registry where all encoding schemes are defined (e.g. based on RSLP schema) needs to be explored.
Best practice	If using qualified DC, always use the encoding scheme(s) for terms from a controlled vocabulary.

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Description

Name	Description

Label	Description
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	
Form of Obligation	**R**
DC Definition	An account of the content of the resource.
DC Comment	Description may include but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	It is permitted to link one or more external descriptions using a URI, but to facilitate keyword indexing of the content of the description, it is recommended that a text description also be included.

Name	Description | URI
Label	Description | URI
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	see below
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	Description | URI
Form of Obligation	**R**
DC Definition	
DC Comment	
DC-Lib Definition	-

DC-Lib Comment	-
Best practice	

Name	**Description ¦ abstract**
Label	Description	Abstract
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	-
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	-
Form of Obligation	**R**
DC Definition	An account of the content of the resource.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	Use text (and not only a URL) to describe the resource.

Name	**Description	tableOfContents**
Label	**Description ¦ Table Of Contents**
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	-
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	-
Form of Obligation	**R**
DC Definition	A list of subunits of the content of the resource.

DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	Use text (and not only a URL) to describe the resource.

Name	**Description ¦ version**
Label	Description | Version
Choice of Namespace	DC-LMES Qualifiers
DC Refinement(s)	
DC-Lib Refinement(s)	Version
DC Encoding Scheme(s)	-
Form of Obligation	**R**
DC Definition	-
DC Comment	-
DC-Lib Definition	Information designating the version or edition of a work.
DC-Lib Comment	Being able to specify the version or edition of a given work is often critical to successful resource discovery and identification to determine whether a resource is the same as another one. This is particularly important for resources that change frequently. This is not to be used for versions in the sense of different physical formats (e.g. the PDF version of a textual resource).
Best practice	This element refinement will generally not be repeated. Element should be included if necessary for identification.

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Date

Name	Date
Label	Date
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	see below
Form of Obligation	**MA**
DC Definition	A date associated with an event in the life cycle of the resource.
DC Comment	Typically, date will be associated with the creation or availability of the resource. Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and follows the YYYY-MM-DD format.
DC-Lib Definition	-
DC-Lib Comment	
Best practice	Recommend use of an element refinement for type of Date. Recommend that dates be encoded 1) using W3C-DTF or ISO 8601 without hyphens or 2) supplied as free text that does not take the form of a string of numerals (with or without hyphens). It is acceptable to use widely-recognized practice such as day-month-year where the day and year are represented with numerals and month with a name or standard abbreviation (e.g., "1 January 2002" or "1 Jan 2002"). Avoid the use of potentially ambiguous date representations such as DD/MM/YY or MM/DD/YY (e.g., "04/05/05")
Open issues	It may be desirable to establish a DC-Lib encoding scheme or profile of ISO 8601 to cover B.C.E. dates, questionable and approximate dates. This will require additional work.

Name	Date ¦ created
Label	Date | Created
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Created
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	**MA**
DC Definition	Date of creation of the resource.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	Use for the creation of the intellectual content.
Best practice	This qualified element should not be repeated except when giving date created using more than one encoding scheme.

Name	Date ¦ valid
Label	Date | Valid
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Valid
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	Date (often a range) of validity of the resource.
DC Comment	-
DC-Lib Definition	-

DC-Lib Comment	-
Best practice	

Name	**Date ¦ available**
Label	Date	Available
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Available
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	Date (often a range) that the resource will become or did become available.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	

Name	**Date ¦ issued**
Label	Date	Issued
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Issued
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	**MA**
DC Definition	Date of formal issurance (e.g. publication) of the resource.

DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	Use for the instantiation.

Name	**Date ¦ modified**
Label	Date	Modified
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Modified
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	Date on which the resource was changed.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	

Name	**Date ¦ copyright**
Label	Date	Copyright
Choice of Namespace	DC-LMES Qualifiers
DC Refinement(s)	
DC-Lib Refinement(s)	Copyright
DC Encoding Scheme(s)	see below

Form of Obligation	O
DC Definition	-
DC Comment	-
DC-Lib Definition	Date of copyright statement.
DC-Lib Comment	-
Best practice	Recommend use if: 1) the value is different from Date.Issued or Date.Created, or 2) the copyright date is known but no value is supplied for Date.Issued or Date.Created. If same date is used for issued and copyright date, use only Date.Issued.

Name	Date ¦ submitted
Label	Date | Submitted
Choice of Namespace	DC-LMES Qualifiers
DC Refinement(s)	
DC-Lib Refinement(s)	Submitted
DC Encoding Scheme(s)	see below
Form of Obligation	O
DC Definition	-
DC Comment	-
DC-Lib Definition	Date of submission of the resource (e.g. thesis, articles, etc.).
DC-Lib Comment	
Best practice	Recommended for theses and dissertations.

Name	Date ¦ accepted
Label	Date | Accepted

Choice of Namespace	DC-LMES Qualifiers
DC Refinement(s)	
DC-Lib Refinement(s)	Accepted
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	-
DC Comment	-
DC-Lib Definition	Date of acceptance of the resource (e.g. of thesis by university department/institution, of article by journal, etc.).
DC-Lib Comment	-
Best practice	Recommended for theses or dissertations.

Name	**Date ¦ captured**
Label	Date | Captured
Choice of Namespace	DC-LMES Qualifiers
DC Refinement(s)	
DC-Lib Refinement(s)	Captured
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	-
DC Comment	-
DC-Lib Definition	Date that the resource was captured.
DC-Lib Comment	This includes the date the resource was digitized or a subsequent snapshot was taken (particularly for dynamic resources) if different from Date.Created.
Best practice	Best practice is to use as a machine-processible date (ISO 8601 without hyphens or W3CDTF).

Name	Date ¦ ISO 8601
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	ISO 8601
Form of Obligation	**MA**
DC Definition	This encoding scheme represents the alternative provided in ISO 8601 that does not include hyphens as separators between year, month, and day.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	Rules for encoding: ISO 8601 has alternatives, with or without the hyphen (i.e. 2001-08-07 or 20010807). W3C-DTF includes hyphens and is the only encoding scheme currently approved. Alternative using no hyphen needs to be registered as an encoding scheme, since it is well established in the library community.
Best practice	DC-Lib recommends use without the hyphen. If use of hyphen is preferred use W3C-DTF as encoding scheme.

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Type

Name	Type
Label	Resource Type

Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	The nature or genre of the content of the resource.
DC Comment	Type includes terms describing general categories, functions, genres, or aggregation levels for content. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of DCMI Types). To describe the physical or digital manifestation of the resource, use the Format element.
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	Use a controlled list and identify the source with encoding scheme.

Name	**Type ¦ DCMIType**
Label	Type | DCMI Type Vocabulary
Choice of Namespace	http://purl.org/dc/dcmitype/
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	DCMIType, see http://dublincore.org/documents/dcmi-type-vocabulary/
Form of Obligation	**O**
DC Definition	A list of types used to categorize the nature or genre of the content of the resource.
DC Comment	-
DC-Lib Definition	-

DC-Lib Comment	-
Best practice	Recommended that at least one value from DCMI-Type be supplied for a high level category; Type may be repeated for a more specific type from another specified scheme.

Name	**Type ¦ DC encoding scheme(s)**
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	Values from [MARC list of sources](#) to be registered as encoding schemes
DC-Lib Encoding Scheme(s)	
Form of Obligation	**O**
DC Definition	-
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	
Best practice	Use a controlled list and identify the source with encoding scheme.
Open questions	Consider registering values defined in the [MARC list of sources](#) as encoding schemes as well as any others that are identified as useful.

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Format

Name	Format
Label	Format
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	**R**
DC Definition	The physical or digital manifestation of the resource.
DC Comment	Typically, Format may include the media-type or dimensions of the resource. Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).
DC-Lib Definition	
DC-Lib Comment	
Best practice	Use this element primarily for IMT.

Name	Format ¦ IMT
Label	Format | IMT
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	see below
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	IMT

Form of Obligation	R
DC Definition	The Internet media type of the resource.
DC Comment	See also: http://www.isi.edu/in-notes/iana/assignments/media-types/media-types
DC-Lib Definition	
DC-Lib Comment	
Best practice	Recommended for electronic resources.

Name	Format ¦ extent
Label	Format | Extent
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Extent
DC-Lib Refinement(s)	see below
DC Encoding Scheme(s)	-
Form of Obligation	O
DC Definition	The size or duration of the resource.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	

Name	Format ¦ medium
Label	Format | Medium
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Medium

DC-Lib Refinement(s)	
DC Encoding Scheme(s)	-
Form of Obligation	O
DC Definition	The material or physical carrier of the resource.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	
Best practice	Used to specify the medium of the physical carrier of a resource. Format without an element refinement qualifier should be used to specify the electronic format of the resource, using the encoding scheme IMT. Format should be repeated if both are applicable (e.g. a PDF file on CD).

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Identifier

Name	Identifier
Label	...
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	see below
Form of Obligation	MA
DC Definition	An unambiguous reference to the resource within a given context.

DC Comment	Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Example of formal identification systems include the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI) and the International Standard Book Number (ISBN).
DC-Lib Definition	-
DC-Lib Comment	
Best practice	*Standard identifier*: Provide at least one standard identifier from a standard scheme (e.g., URL, ISBN, etc.) if one or more standard identifiers have been assigned to the resource and are known to the metadata agency. *Unique-resource identifier*: Provide applicable identifiers assigned to one-of-a-kind resources (such as accession numbers assigned to items in a museum collection) if one or more of this class of identifiers have been assigned to the resource and are known to the metadata agency. If the structure of the identifier (e.g., all numerals) is potentially ambiguous it is recommended that the associated agencies' name be included as part of the identifier element. *Citation*: Provide a citation if no standard identifier is assigned and a formal citation is a common means of identifying the resource being described (e.g., a journal article). Use the element Identifier on a more abstract level; identifier for local library holdings like call number could be put into the DC-Lib element Holding Location.

Name	**Identifier ¦ URI**
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	-

DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	URI
Form of Obligation	**MA**
DC Definition	
DC Comment	
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system.

Name	**Identifier ¦ DC encoding scheme(s)**
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	SICI, ISBN, ISSN, DOI, (if not expressed as URI)
Form of Obligation	**MA**
DC Definition	SICI: Serial Item and Contribution Identifier; ISBN: International Standard Book Number; ISSN: International Standard Serial Number; DOI: Digital Object Identifier
DC Comment	To be registered as encoding schemes (these may also be expressed as URIs).
DC-Lib Definition	
DC-Lib Comment	OpenURL may be registered as an encoding scheme after completion of the standard.
Best practice	

Name	Identifier ¦ Citation
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (Proposed)
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	Citation
Form of Obligation	**O**
DC Definition	
DC Comment	
DC-Lib Definition	Bibliographic citation information for a journal article, or similar bibliographic resource
DC-Lib Comment	This element refinement is proposed by the DCMI Citation Working Group and is under review. See: A Citation Element Refinement for dc:identifier.
Best practice	

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Source

Name	Source
Label	Source
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	-
DC-Lib Refinement(s)	-

DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	A Reference to a resource from which the present resource is derived.
DC Comment	The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.
DC-Lib Definition	-
DC-Lib Comment	A constructed or derived ID of a local nature may be supplied, including a specification of the supplying organisation, in the absence of a globally unique one.
Best practice	Use only when the described resource is the result of digitization of non-digital originals. Otherwise, use Relation.

Name	**Source¦ URI**
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	URI
Form of Obligation	**O**
DC Definition	A URI uniform resource identifier.
DC Comment	-
DC-Lib Definition	-

DC-Lib Comment	In the absence of a globally unique Identifier, a constructed or derived one of a local nature can be supplied, including a specification of the supplying organisation.
Best practice	

Name	Source ¦ DC encoding scheme(s)
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	SICI, ISBN, ISSN, DOI, (if not expressed as URI)
Form of Obligation	O
DC Definition	SICI: Serial Item and Contribution Identifier; ISBN: International Standard Book Number; ISSN: International Standard Serial Number; DOI: Digital Object Identifier
DC Comment	To be registered as encoding schemes (these may also be expressed as URIs).
DC-Lib Definition	
DC-Lib Comment	In the absence of a globally unique Identifier, a constructed or derived one of a local nature can be supplied, including a specification of the supplying organisation. Consider registering OpenURL as an encoding scheme after completion of the standard.
Best practice	
Open questions	It is not clear whether DOI could be assigned to a non-digital resource, which is how DC-Lib uses this element.

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Language

Name	Language
Label	Language
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	MA
DC Definition	A language of the intellectual content of the resource.
DC Comment	Recommended best practice for the values of the Language element is defined by RFC 1766 which includes a two-letter Language Code (taken from the ISO 639 standard), followed optionally, by a two-letter Country Code (taken from the ISO 3166 standard). For example, en for English, fr for French, or en-uk for English used in the United Kingdom.
DC-Lib Definition	
DC-Lib Comment	Language code may be used as a value for the Language qualifier to any DCMES element.
Best practice	Recommend codes rather than text, taken from ISO 639-2 bibliographic codes. Mandatory if applicable means if there is any spoken or written text, supply.

Name	Language ¦ ISO639-2
Label	Language | ISO 639-2
Choice of Namespace	http://purl.org/dc/terms/

DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	ISO 639-2
Form of Obligation	**MA**
DC Definition	A language of the intellectual content of the resource.
DC Comment	Recommended best practice for the values of the Language element is defined by RFC 1766 which includes a two-letter Language Code (taken from the ISO 639 standard), followed optionally, by a two-letter Country Code (taken from the ISO 3166 standard). For example, en for English, fr for French, or en-uk for English used in the United Kingdom.
DC-Lib Definition	Use the bibliographic codes from ISO 639-2. ISO 639-2 is a DCMI approved encoding scheme.
DC-Lib Comment	The language code may be used as a value for the Language qualifier to any DCMES element.
Best practice	Use codes rather than text. Mandatory if applicable means if there is any spoken or written text, supply.

Name	**Language ¦ RFC 1766**
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	RFC 1766
Form of Obligation	**O**
DC Definition	A language of the intellectual content of the resource.

DC Comment	Recommended best practice for the values of the Language element is defined by RFC 1766 which includes a two-letter Language Code (taken from the ISO 639 standard), followed optionally, by a two-letter Country Code (taken from the ISO 3166 standard). For example, en for English, fr for French, or en-gb for English used in Great Britain.
DC-Lib Definition	
DC-Lib Comment	-
Best practice	Use of the ISO 639-2 bibliographic code is preferred. A mapping between both codes is available at http://lcweb.loc.gov/standards/iso 639-2/englangn.html.
Open questions	Note that RFC 1766 has been replaced by RFC 3066, which allows for a code from ISO 639-2 when there is no corresponding ISO 639-1 code. RFC 3066 is being registered as a DCMI approved scheme.

Name	**Language ¦ RFC 3066**
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	-
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	RFC 3066
Form of Obligation	**O**
DC Definition	A language of the intellectual content of the resource.
DC Comment	Recommended best practice for the values of the Language element is defined by RFC 1766 which includes a two-letter Language Code (taken from the ISO 639 standard), followed optionally, by a two-letter Country Code (taken from the ISO 3166 standard). For example, en for English, fr for French, or en-gb for English used in Great Britain.
DC-Lib Definition	
DC-Lib Comment	-

Best practice	Use of the ISO 639-2 bibliographic code is preferred. A mapping between both codes is available at http://lcweb.loc.gov/standards/iso 639-2/englangn.html.
Open questions	RFC 3066 replaces RFC 1766, which allows for a code from ISO 639-2 when there is no corresponding ISO 639-1 code. RFC 3066 is being registered as a DCMI approved scheme.

Relation

Name	**Relation**
Label	Relation
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	A reference to a related resource.
DC Comment	Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.
DC-Lib Definition	-

DC-Lib Comment	Relation without qualifier is optional; where it is qualified the recommendation for the qualifier should be followed. If using qualifiers, use the most specific one that is applicable. When no Identifier is available, a bibliographic description may be constructed. Future work will involve developing guidelines.
Best practice	Recommended use with qualifiers in certain situations: - When documents in hand are parts of "host documents" (e.g. journal, monographic series) and when there is no citation information in DC identifier (if used by Citation WG). - When documents in hand are revisions or reformatted issues of earlier publications and information on these are readily available.

Name	**Relation ¦ isVersionOf**
Label	Relation | Is Version Of
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	IsVersionOf
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**R**
DC Definition	The described resource is a version, edition, or adaptation of the referenced resource. Changes in version implies substantive changes in content rather than differences in format.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	Do not include qualifier HasVersion, since this implies that it is clear which came first.

Best practice	
Open questions	Future work includes possibly identifying a need for HasVersion.

Name	**Relation ¦ isFormatOf**
Label	Relation | Is Format Of
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	IsFormatOf
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**R**
DC Definition	The described resource is the same intellectual content of the referenced resource, but presented in another format.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	Use when there are alternative formats and it is not clear which preceded the other.
Best practice	

Name	**Relation ¦ hasFormat**
Label	Relation | Has Format
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	HasFormat
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below

Form of Obligation	R
DC Definition	The described resource pre-existed the referenced resource, which is essentially the same intellectual content presented in another format.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	Use only when the described resource references alternative physical formats. Example is the metadata for a home page for a dissertation that references that dissertation in various alternative formats (e.g. PDF, Postscript, etc.)
Best practice	

Name	Relation ¦ isReplacedBy
Label	Relation | Is Replaced By
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	IsReplacedBy
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	O
DC Definition	The described resource is supplanted, displaced, or superceded by the referenced resource.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	Used for succeeding version.
Best practice	

Name	Relation ¦ Replaces
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Replaces, further refinements see below and above
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	O
DC Definition	The described resource supplants, displaces, or supersedes the referenced resource.
DC Comment	-
DC-Lib Definition	
DC-Lib Comment	Used for preceding version.
Best practice	

Name	Relation ¦ IsPartOf
Label	Relation	Is Part Of
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	IsPartOf
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	R
DC Definition	The described resource is a physical or logical part of the referenced resource.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-

Best practice	Recommended use when documents in hand are parts of "host documents" (e.g. journal, monographic series) and when there is no citation information in DC identifier (if used by Citation WG).

Name	**Relation ¦ hasPart**
Label	Relation | Has Part
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	HasPart
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	The described resource includes the referenced resource either physically or logically.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	

Name	**Relation ¦ requires**
Label	Relation | Requires
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Requires
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**R**

DC Definition	The described resource requires the referenced resource to support its function, delivery, or coherence of content.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	-
Best practice	

Name	**Relation ¦ isReferencedBy**
Label	Relation | Is Referenced By
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	IsReferencedBy
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	The described resource is referenced, cited, or otherwise pointed to by the referenced resource.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	May be of limited use in terms of later resources referencing the initial resource, but may be useful to link to a major review or assessing essay.

Name	**Relation ¦ References**
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	References

DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	The described resource references, cites, or otherwise points to the referenced resource.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	May be of limited use except for other resources that are far reaching or thorough criticisms. Not appropriate, for example, to include all references from the bibliography of the described resource in repeated Relation.References tags
Best practice	

Name	Relation ¦ URI
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	see above
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	URI
Form of Obligation	**O**
DC Definition	A URI uniform resource identifier.
DC Comment	-
DC-Lib Definition	-
DC-Lib Comment	In the absence of a globally unique Identifier, a constructed or derived one of a local nature can be supplied, including a specification of the supplying organisation.
Best practice	

Name	Relation ¦ DC encoding scheme(s)
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	SICI, ISBN, ISSN, DOI, (if not expressed as URI)
DC-Lib Encoding Scheme(s)	
Form of Obligation	O
DC Definition	SICI: Serial Item and Contribution Identifier; ISBN: International Standard Book Number; ISSN: International Standard Serial Number; DOI: Digital Object Identifier
DC Comment	To be registered as encoding schemes (these may also be expressed as URIs).
DC-Lib Definition	
DC-Lib Comment	OpenURL may be registered as an encoding scheme after completion of the standard.
Best practice	

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Coverage

Name	Coverage
Label	Coverage

Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	see below
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	see below
Form of Obligation	**O**
DC Definition	The extent or scope of the content of the resource
DC Comment	Coverage will typically include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and that, where appropriate, named places or time periods be used in preference to numeric identifiers such as sets of coordinates or date ranges.
DC-Lib Definition	-
DC-Lib Comment	
Best practice	Use Coverage with qualifier Spatial or Temporal; use of unqualified Coverage is discouraged.

Name	Coverage ¦ Spatial
Label	...
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Spatial
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	DCMI Point, ISO 3166, DCMI Box, TGN MARC Geographic Area Codes, MARC Country Codes
Form of Obligation	**MA**

DC Definition	Spatial characteristics of the intellectual content of the resource.
DC Comment	Coverage will typically include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and that, where appropriate, named places or time periods be used in preference to numeric identifiers such as sets of coordinates or date ranges.
DC-Lib Definition	-
DC-Lib Comment	Use this element for geographic coverage. The value of this element may also be included in Subject if desired. There is a need to evaluate DCMI Box and DCMI Point as for their usefulness for libraries and how they relate to current library practices for recording cartographic data.
Best practice	Use Coverage with qualifier Spatial or Temporal.

Name	Coverage ¦ temporal
Label	Coverage | Temporal
Choice of Namespace	http://purl.org/dc/terms/
DC Refinement(s)	Temporal
DC-Lib Refinement(s)	-
DC Encoding Scheme(s)	DCMI Period, W3C-DTF
Form of Obligation	MA
DC Definition	Temporal characteristics of the intellectual content of the resource.

DC Comment	Coverage will typically include temporal period ... Recommended best practice is to select a value from a controlled vocabulary ...
DC-Lib Definition	-
DC-Lib Comment	The value of this element may also be included in Subject if desired.
Best practice	Prefer standard representation of date/time values in DC.Date and dc.coverage.temporal, although textual descriptions may also be used.

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Rights

Name	Rights
Label	Rights
Choice of Namespace	http://purl.org/dc/elements/1.1/
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	-
Form of Obligation	**R** if applicable (if there are encumbrances)
DC Definition	Information about rights held in and over the resource.
DC Comment	Typically, a Rights element will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions can be made about the status of these and other rights with respect to the resource.
DC-Lib Definition	-

DC-Lib Comment	
Best practice	
Open questions	Need to determine how to use for library applications; there is ongoing discussion on rights metadata in various applications.

Name	Rights ¦ URI
Label	...
Choice of Namespace	http://purl.org/dc/terms/ (to be registered)
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	URI
DC-Lib Encoding Scheme(s)	
Form of Obligation	**R** if applicable (if there are encumbrances)
DC Definition	A URI uniform resource identifier.
DC Comment	...
DC-Lib Definition	
DC-Lib Comment	
Best practice	

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Audience

Name	audience

Label	Audience
Choice of Namespace	http://purl.org/dc/terms/ (domain-specific for DC-Ed)
DC Refinement(s)	
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	
DC-Lib Encoding Scheme(s)	
Form of Obligation	O
DC Definition	DC-Ed definition: A class of entity for whom the resource is intended or useful.
DC Comment	DC-Ed comment: A class of entity may be determined by the creator or the publisher or by a third party.
DC-Lib Definition	-
DC-Lib Comment	
Best practice	
Open questions	Need to evaluate whether any refinements or encoding scheme(s) are appropriate for DC-Lib use. MARC target audience codes may be considered. Suggest elevating this element to cross domain status.

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Holding Location

Name	holdingLocation
Label	Holding Location

Choice of Namespace	DC-LMES
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	-
DC-Lib Encoding Scheme(s)	see below
Form of Obligation	**MA**
DC Definition	-
DC Comment	-
DC-Lib Definition	Identifies ownership of and/or the organization responsible for access to the resource.
DC-Lib Comment	Use for a physical location that allows the user to retrieve the item when a URI is not appropriate (e.g. for physical items not available electronically). This also facilitates access if the URI doesn't retrieve anything or only a poor substitute.
Best practice	

Name	**holdingLocation | DC-Lib encoding scheme(s)**
Label	Holding Location
Choice of Namespace	DC-LMES Qualifiers
DC Refinement(s)	-
DC-Lib Refinement(s)	
DC Encoding Scheme(s)	-
DC-Lib Encoding Scheme(s)	MARC Code list for Organizations
Form of Obligation	**MA**
DC Definition	-

DC Comment	-
DC-Lib Definition	Identifies ownership of and/or the organization responsible for access to the resource.
DC-Lib Comment	Use for a physical location that allows the user to retrieve the item when a URI is not appropriate (e.g. for physical items not available electronically). This also facilitates access if the URI doesn't retrieve anything or only a poor substitute.
Best practice	
Open questions	Need to evaluate other encoding schemes, possibly a URI to an entry in an authority file.

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5. Acknowledgements

Thanks to all members of the DC-Libraries Application Profile drafting committee who participated and to the individuals at the Staats- und Universitaetsbibliothek Goettingen for their assistance in the presentation format.

Members of the working group:

Ann Apps (University of Manchester)
Olga Barysheva (National Library of Russia)
Diane Boehr (National Library of Medicine)
Priscilla Caplan (Florida Center for Library Automation
Warwick Cathro (National Library of Australia)
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Stuart Weibel (DCMI)
Robin Wendler (Harvard University)
Mary Woodley (California State University, Northridge)

6. Major changes since last update

This list includes major changes.

- **General**
    - DC-Lib encoding scheme deleted in tables except for Holding Location (domain-specific element); all other encoding schemes listed under DC encoding scheme
    - Most open questions deleted or changed to recommendations
    - Specification of mandatory element(s) added
    - Use of encoding schemes explained
    - Changed namespace references to reflect recommended [Namespace Policy for the Dublin Core Metadata Initiative](#)
- **Title**
    - Best practice statements added
    - Title|Alternative made recommended
- **Creator and Contributor**
    - Creator made optional; allows using separate CCP elements or conflating if desired
    - Best practice statement changed
    - DC-Lib definition added for Creator
    - Method for using role values as element refinements specified
    - DCMIAgentDetail added as encoding scheme
    - Type removed (part of DCMIAgentDetail proposal)
- **Publisher**

- ❍ Made optional
- ❍ Best practice statement changes
- ❍ Open questions added
- ❍ Publisher|DCMIAgentDetail added
- **Subject**
  - ❍ Allows geographics in Subject if desired (and also in Coverage)
  - ❍ Best practice note changed
- **Description**
  - ❍ Description|Version changed to Recommended
- **Date**
  - ❍ Best practice statement revised
  - ❍ Date|Created: best practice statement added
  - ❍ Date|Captured added
- **Format:**
  - ❍ Format|Medium: Best practice added
- **Identifier**
  - ❍ Changed to Mandatory if applicable
  - ❍ Best practice statements added
  - ❍ Identifier|DC encoding scheme(s): added DC-Lib comment about OpenURL
  - ❍ Identifier|Citation added
- **Source**
  - ❍ Added DC-Lib Comment
  - ❍ Source|URI added
  - ❍ Source|DC encoding scheme(s) added
- **Language:**
  - ❍ Added unqualified Language table
  - ❍ Added RFC 3066 table
- **Relation**
  - ❍ Added DC-Lib comments
  - ❍ Added Relation|Has Format with DC-Lib comment
  - ❍ Relation|isReferencedBy: added DC-Lib comment
  - ❍ Relation|References: added DC-Lib comment
  - ❍ Relation|DC encoding scheme(s) added
- **Coverage**
  - ❍ Added unqualified Coverage table
  - ❍ Coverage|Spatial obligation changed to mandatory if applicable; comment changed
  - ❍ Coverage|Temporal: added DC-Lib comment and Best practice statement
- **Audience**: Namespace, definition, comment revised based on DCMI Usage Board decisions for DC-Ed.
- **Holding Location:** holdingLocation|DC-Lib encoding scheme(s) added

back to DC-Lib Application Profile: Introduction

Last update: April 27, 2002
Rebecca S. Guenther

Valid XHTML 1.0! W3C CSS

Metadata associated with this resource: http://dublincore.org/documents/library-application-profile/index.shtml.rdf

Proposal: Agent roles in DCMES

5 April 2002

This proposal is submitted by Rebecca Guenther for review by the DC-Agents and DC-Libraries Working Groups. It proposes establishing element refinements for the Dublin Core elements Creator and Contributor to express a role in relation to the resource. A second proposal has been submitted by Robina Clayphan for a proposed DCMI Agent Detail Encoding Scheme.

---

1. Background.

The need to express a role for the "Agent" elements (Creator, Contributor, and, to a lesser extent, Publisher) in the Dublin Core element Set has been expressed for many years. There have been a number of proposals for how to handle this, but currently there are no approved element refinements for these three Dublin Core elements. A role is a term that further refines the contribution of the agent to the resource described; an example is "illustrator" as a refinement to the element Contributor when that person provided, for example, illustrations to the resource rather than being entirely responsible for all aspects of the intellectual content.

Over the years suggestions have been made to add a "role" qualifier for the Agent elements which would contain a value, preferably from a controlled list. A proposal was presented in December 1999 which suggested that "role" be what was then called a "value component" of the elements. Subsequent to this, before the voting commenced, the proposal was revised to include a short list of roles (a subset of the MARC relator list) that were put forward as element refinements to the three elements (see below). However, when the Dublin Core Usage Committee conducted its vote on Dublin Core qualifiers, this proposal was rejected and no qualifiers were approved for Creator, Contributor, and Publisher because of the feeling by some members that all qualifiers (including "value components") be approved as a package.

The DCMI Usage Board discussed the issue further in Sept. and Oct. 2001 and agreed (again) that the role values are properly element refinements. The group also generally agreed that deprecating Creator and Publisher in favor of Contributor should be considered; the role values Creator and Publisher could be used to refine Contributor if needed. This consensus is what is reflected in the October 2001 version of the DC-Libraries Application Profile. However, it was recognized that the idea needed further discussion particularly by the Agent Working Group.

Meetings of the DCMI-Agents Working Group over the last few years have continued to

discuss the need for roles, although more attention has been given to an Agent element set. After the October 2001 meeting, the group included a deliverable in its work plan to develop a proposal for CCP qualifiers. This proposal is a result of that deliverable (assigned to Rebecca Guenther and Robina Clayphan).

The DC-Libraries Application Profile is in the process of revision. The need for expressing the relation between the contributor and the resource is clear and will be included in the profile. It is important that the Agent Working Group discuss the issue so that a formal proposal can be submitted to the Usage Board to finally approve qualifiers for Creator, Contributor, and Publisher.

In a meeting of the DC-Libraries Application Profile drafting committee held in January 2002 consensus was reached that rather than specify a subset of the LC Relators list terms, that any term be available for expressing the relation of the agent to the work. There are about 175 terms on the list, so it would be difficult to submit proposals for each term as an element refinement. The feeling was that users not be constrained to a small list when their applications may require more specificity, and a fuller list is readily available and a well-accepted standard. Additional terms could be added as needed by submitting requests to the Library of Congress.

2. Proposal for a small set of relator terms as element refinements.

The following was submitted to the DCMI Usage Board in October 2002:

Proposal for including Roles for Creator/Contributor/Publisher in Dublin Core

The Agent Working Group has discussed the elements Creator, Contributor and Publisher and how to allow for expressing attributes of agents associated with a resource. In addition it has in its charge looking at element refinements for these elements. It seems unlikely that this group will make substantial progress both on the Agent Core (the main topic of their agenda at DC-9) and element refinements, particularly for roles.

There is general consensus (particularly among members of the Usage Board as well as in previous discussions within the DCMI) that agent roles are attributes of the agent in relation to the resource described, so thus they should be expressed as element refinements of the agent elements. In addition, the Usage Board has discussed the possible deprecation of Creator and Publisher in favor of using Contributor for all agents associated with a resource.

This proposal suggests that element refinements be approved for Contributor to indicate the role of the contributor in relation to the resource. The following roles and definitions come from the MARC Code List for Relators (with some minor revisions to make the definitions more generally applicable). Role terms would be approved for use with the

element, although applications could use the appropriate code if preferred (some, such as Open Ebook are already using relator codes with DCMES). Note that Creator and Publisher are already defined as roles; these would be used with Contributor and would be equivalent to using the element Creator or Publisher, respectively.

The following is essentially what was proposed to DCMI as element refinements in early 2000 (with a few changes), but was not approved because of the perceived need to consider all aspects of CCP element refinements and structured values separately. Other element refinements indicating roles could be approved if needed; they should be taken from the MARC list with the official semantics.

It is proposed that the Library of Congress maintain this list in conjunction with the larger MARC Code List of Relators. Thus, LC would define a subset of the larger list and maintain that documentation on the Web. These role terms would also be registered as element refinements of Contributor in the DCMI registry. This would enable LC to be able to maintain consistency with the complete list. If users require a role not on the LC list, they can apply for a new code/term; if approved, it would be included both on the officially maintained list at LC and in the DCMI registry.

An alternative is to allow for any of the role terms on the list to be used, but that would require all to be defined as element refinement for Contributor. Since the list includes many codes designed for use with very specific types of applications, this does not seem appropriate for a cross domain element set such as Dublin Core.

Proposed Relators list for general applications (Dublin Core)

Principles for inclusion:

- The term is not specific to a material type.
- Only general creator/author terms are used, rather than specific ones.
- Usage is for general application only; the broadest terms are included.

Term	Code	Comment
Adapter	adp	
Contributor	ctb	Probably not necessary to use
Creator	cre	Used with Contributor
Distributor	dst	
Editor	edt	
Illustrator	ill	
Performer	prf	
Publisher	pbl	Used with Contributor

Sponsor	spn	
Translator	trl	

Terms with definitions:

Adapter [adp] Use for a person who 1) reworks a musical composition, usually for a different medium, or 2) rewrites novels or stories for motion pictures or other audiovisual medium.

Contributor [ctb] Use for one whose work has been contributed to a larger work, such as an anthology, serial publication, or other compilation of individual works.

Creator [cre] Use for a person or corporate body responsible for the intellectual or artistic content of a work.

Distributor [dst] Use for an agent or agency that has exclusive or shared marketing rights for an item.

Editor [edt] Use for a person who prepares for publication a work not primarily his/her own, such as by elucidating text, adding introductory or other critical matter, or technically directing an editorial staff.

Illustrator [ill] Use for the person who conceives, and perhaps also implements, a design or illustration.

Performer [prf] Use for a person who exhibits musical or acting skills in a musical or dramatic presentation or entertainment.

Publisher [pbl] Use for an entity responsible for making the resource available (Note: the definition of publisher is not given in MARC Relators list)

Sponsor [spn] Use for the person or agency that issued a contract or under the auspices of which a work has been written, printed, published, etc.

Translator [trl] Use for a person who renders a text from one language into another, or from an older form of a language into the modern form.

See also the full MARC Relator list.

3. Proposal for use of the full list of terms for relators.

As mentioned above, the DC-Libraries Application Profile drafting committee meeting resulted in consensus that users not be constrained by a small list of elements and that the entire list of relator terms be available. In addition, the group recommended retaining the three CCP elements and leaving it to the application as to whether it wishes to combine Creator and Contributor (or all three).

The following are notes from that meeting (full notes are available).

Creator/Contributor/Publisher.

Elements. DC-Lib AP currently suggests combining these three elements and using only Contributor. This possibility had been discussed by the DCMI Usage Board recently. However, this approach has not been officially approved by either the DCMI-Agents Working Group or the Usage Board. Thus, the group preferred to retain the three elements and allow for an institution to collapse them if desired. (For instance, NLM prefers to use only Contributor for both Creator and Contributor but retain Publisher.) It was recognized that for many uses it was necessary in library applications to distinguish publisher separately. Stu Weibel thought that it made implementations more complicated to throw out some elements, and that there may be little payoff to doing that. In any case there is an expectation that at least Creator and Contributor (perhaps also Publisher) would be indexed together anyhow, and there may be no benefit to throwing some of them out. Roles can be used for an application that desires to conflate all or some of the elements, such as Contributor.Creator.

Decision: Allow for using all three elements, but applications can conflate them if desired.
Reason: This allows more flexibility with existing records and there is not a big payoff in conflating them. Systems can still index them together if desired.

Roles. It is desirable to define a vocabulary to be used with a role qualifier. DC-Lib AP will specify the use of the MARC relator code list; other lists could also be used if defined. If a subset of that list is desired it may be necessary to define what that subset is (either through DCMI-Agents WG or the AP). If the subset is found to be constraining, any value on the list should be possible. Robina Clayphan will contact Andy Powell to discuss the question of syntax and element refinement versus structured value.

Decision: Use MARC relator list and allow for any value from that list; explore how to do this syntactically.
Reason: Users should not be constrained by a subset list since applications may vary.

The remaining issue was how to express this syntactically. An exchange with Andy Powell concerning possible syntax is available at in the archives of the DC-Libraries-AP

list.

This brought up the issue of namespaces if a DC term from another namespace was being used as an element refinement. However, it is possible that an agreement could be reached between DCMI and the Library of Congress on how to work out these issues so that the relator terms could be reference as part of a DC namespace while the list could be maintained by the Library of Congress.

4. Current Proposal

The following is proposed for establishing qualifiers for Creator and Contributor.

1. Allow for the use of any term on the [MARC relator list](#) to be used with Creator or Contributor.
   - ❍ Note that Publisher is being excluded; the only term that is appropriate for use with that element is perhaps Distributor, which could be considered as a refinement itself.
   - ❍ This approach would probably involve establishing a token and URI for each relator term. The token could be the code already defined in the list, while the human readable label could be the term itself.
   - ❍ It is possible that other controlled lists of relator terms could be used; this would require submission of such to the DCMI-Usage Board.
2. Ask the DCMI-Architecture working group to develop recommendations for appropriate syntax for expressing these element refinements.
3. Resolve the namespace issues of using terms from an externally maintained scheme in a DCMI namespace.

 Library of Congress
[Library of Congress Help Desk](#) (mm/dd/yy)

◀	▶	◀ 💡	▶ 💡	◀ ▮	▶ ▮	I◀◀	⬆	👥🔄	✉	✉	🔍	jkl	jkl

Date: Mon, 30 Jul 2001 17:03:40 -0400
Reply-To: A mailing list for the Dublin Core Metadata Initiative's Usage
                   Working Grou <DC-USAGE@JISCMAIL.AC.UK>
Sender: A mailing list for the Dublin Core Metadata Initiative's Usage
                   Working Grou <DC-USAGE@JISCMAIL.AC.UK>
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: Proposal for Encoding Scheme
Content-Type: MULTIPART/MIXED;

To DC-Usage Board:

Since noone answered my question about a standard form for our proposals,
I made one up. I had agreed to sending forward a "fast-track" proposal for
the addition of an encoding scheme for Language. See attached.

I did not think there was a need for further justification, since this one
is fairly straightforward. I have included what I thought should be in the
definition on the Web site. We do detail what we expect in proposals in
our process document, but we don't specifically deal with what is needed
for the fast track proposal. If it is the same as what's in the process
document, I would need to add examples (didn't think that would be
helpful for an encoding scheme), discussion of overlap, summary history of
discussion, analysis of impact, analysis of interoperability,
justification of the need. I thought for an encoding scheme proposal none
of that would be necessary, although it isn't clearly stated in the
process document (maybe we need to do that).

Please let me know if you think anything further is needed. I guess this
will be our first test case for a fast track proposal.

I'm also not sure we need to vote on this kind of proposal. We're not
really specific about that either (although we say that "fast
track" proposals may bypass a portion of the normal process).

Rebecca

---

rfc3066_proposal.doc [application/msword]

Back to: Top of message | Previous page | Main DC-USAGE page

Qualifier Proposal

Element: Language
Type of proposal: Fast-track
Type of qualifier: Encoding scheme
Shepherd: Rebecca Guenther
Originator: Usage Board
Date of Submission: 31 July 2001

Encoding Scheme: RFC 3066
Name: RFC3066
Label: RFC 3066
Definition: Internet RFC 3066 'Tags for the Identification of Languages' specifies a primary subtag which is a two-letter code taken from ISO 639 part 1 or a three-letter code taken from ISO 639 part 2, followed optionally by a two-letter country code taken from ISO **3166.** When a language in ISO 639 has both a two-letter and three-letter code, use the two-letter code; when it has only a three-letter code, use the three-letter code. This RFC replaces RFC 1766.
See Also: http://www.ietf.org/rfc/rfc3066.txt

```
                      DCMI Usage Board:
            One-stop worksheet of issues and links
```

Thomas Baker (thomas.baker@bi.fhg.de)
Version: Fri May 3 17:15:01 EDT 2002

UB Web pages I maintain at http://www.gmd.de/People/Thomas.Baker
UB Web pages I maintain at http://dublincore.org/usage
UB documentation
DC-General and working groups
DCMI Metadata Terms
UB-related Web pages to monitor
Issues related to the registry
Issues related to encoding schemes
Issues related to naming
Issues for the Web team
Issues of process and Usage Board role/jurisdiction
DCSV - Structured values
Other

UB Web pages I maintain at http://www.gmd.de/People/Thomas.Baker
----

1) Issues and links (this page):   [issues.txt]
   Source: file://localhost/e:/u/folders/_usage/issues.txt
   HTML: file://localhost/e:/u/folders/_usage/_html/issues.html
   Recent version at: http://www.gmd.de/People/Thomas.Baker/issues.html

2) DCMI Usage Board meeting agenda [for upcoming meeting]   [agenda.txt]
   Source: file://localhost/e:/u/folders/_usage/agenda.txt
   HTML: file://localhost/e:/u/folders/_usage/_html/agenda.html
   Available from: http://dublincore.org/usage/meetings/index.shtml
   Available from: http://www.gmd.de/People/Thomas.Baker/agenda.html
   On completion of a meeting, the file will be frozen and archived as
   http://dublincore.org/usage/meetings/2002/05/agenda.html (for example)
   and linked to http://dublincore.org/usage/meetings/.

UB Web pages I maintain at http://dublincore.org/usage/
----

1) DCMI Usage Board documentation   [index-documents.txt]
   Source: file://localhost/e:/u/folders/_usage/index-documents.txt
   HTML: file://localhost/e:/u/folders/_usage/_html/index-documents.shtml
   Installed as: http://dublincore.org/usage/documents/index.shtml

2) DCMI Usage Board Meetings - a chronology   [index-meetings.txt]
   Source: file://localhost/e:/u/folders/_usage/index-meetings.txt
   HTML: file://localhost/e:/u/folders/_usage/_html/index-meetings.shtml
   Installed as: http://dublincore.org/usage/meetings/index.shtml

3) DCMI Usage Board decisions   [index-decisions.txt]
   Source: file://localhost/e:/u/folders/_usage/index-decisions.txt
   HTML: file://localhost/e:/u/folders/_usage/_html/index-decisions.shtml
   Installed as: http://dublincore.org/usage/decisions/index.shtml
   Example: http://dublincore.org/usage/decisions/index.shtml#2001.01

4) DCMI Metadata Terms - an Overview   [index-terms.txt]
```

```
    Source:        file://localhost/e:/u/folders/_usage/index-terms.txt
    HTML:          file://localhost/e:/u/folders/_usage/_html/index-terms.html
    Installed as:  http://dublincore.org/usage/terms/index.shtml

 5) DCMI Elements and Qualifiers                [index-elements-qualifiers.txt]
    Source:        file://localhost/e:/u/folders/_usage/index-elements-qualifiers.txt
    HTML:          file://localhost/e:/u/folders/_usage/_html/index-elements-
qualifiers.html
    Installed as:  http://dublincore.org/usage/terms/elements-qualifiers/index.shtml
    Archived at:   http://dublincore.org/usage/terms/2002/04/22/elements-qualifiers/


    ---------------------------------------------------------------------------
    DC-General and working groups
    ---------------------------------------------------------------------------

    http://dublincore.org/groups/architecture.htm
    http://dublincore.org/groups/languages/
    http://dublincore.org/groups/registry/
    http://dublincore.org/usage
    http://www.jiscmail.ac.uk/lists/dc-architecture.html
    http://www.jiscmail.ac.uk/lists/dc-general.html
    http://www.jiscmail.ac.uk/lists/dc-international.html
    http://www.jiscmail.ac.uk/lists/dc-registry.html
    http://www.jiscmail.ac.uk/lists/dc-usage.html


    ---------------------------------------------------------------------------
    http://dublincore.org/usage/terms/elements-qualifiers/
    ---------------------------------------------------------------------------

 ==  Several of the documents on the DCMI Recommendations page
     at http://dublincore.org/documents/#recommendations describe
     "semantics" and, as such, are now under the jurisdiction
     of the Usage Board.  These should be moved or linked to
     http://dublincore.org/usage.    These are:

     http://dublincore.org/documents/2000/07/11/dcmi-type-vocabulary/
     http://dublincore.org/documents/2000/07/11/dcmes-qualifiers/
     http://dublincore.org/documents/1999/07/02/dces
     http://dublincore.org/documents/1998/09/dces
     http://www.ietf.org/rfc/rfc2413.txt

 == What about:

     http://dublincore.org/documents/dcmes-qualifiers/ (a redirect)
     http://dublincore.org/documents/dces (a redirect)
     http://dublincore.org/resources/translations
     http://dublincore.org/qdcmes/1.0/

 -- Database attributes: Does the attribute set presented in
     http://dublincore.org/usage/terms/elements-qualifiers/ capture
     the information we will need to record about metadata terms
     in the Vocabulary Management System?  Is the implicit
     attribute set in decisions.html appropriate and adequate?

 -- References (footnotes) embedded in term definitions: Note
     that http://dublincore.org/usage/terms/elements-qualifiers/
     has a "references cited" section, following the
     recommendation Web page for DCMES 1.1.  As we move towards a
     database environment do we need to make element definitions
     more "self-contained" by including all such citations in
```

       individual term definitions?

   -- The case of term names: Andy has argued that we should
      uniformly put "name" tokens into lowercase to follow emerging
      practice in XML and RDF communities. User guides could
      recommend that applications tolerate mixed-case term names
      for legacy reasons. If we are going to do this, there is no
      better time than now. (In this case, a sentence of
      explanation would need to be added to the Introduction of
      http://dublincore.org/usage/terms/elements-qualifiers/.)

   -- If Andy and Pete's XML guidelines are now in line with the
      RDF style of tagging -- the flat {dcterms:alternative}{/...}
      as opposed to the nested
      {dc:title}{dcterms:alternative}{/...}{/...} -- then our
      grammar will need to be reworded accordingly. Anticipating
      the desirability of doing this, I have tried to describe DCMI
      grammar in the overview terms.html page in a way that does
      not preclude this.

   -- Do we want to give the
      http://dublincore.org/usage/terms/elements-qualifiers/
      document a catchy name, such as "DCMI Dictionary"??

   UB-related Web pages to monitor

   == http://dublincore.org/documents/2001/04/12/usageguide/glossary.shtml (Apr 2002)
      Definitions of things like "DC-Simple", discussed on the dc-architecture
      list in April 2002.

   == http://dublincore.org/documents/usageguide/
      Diane's "Using Dublin Core" - version was 2001-04-12 as of 2002-04-18

   == http://dublincore.org/resources/faq
      Questions dealing with Simple versus Qualified Dublin
      Core, Dumb-Down Principle, etc.

   == Usage Board should be described here:
      http://dublincore.org/about/
      http://dublincore.org/about/organization
      http://dublincore.org/resources/
      http://dublincore.org/resources/faq

   == Usage Board in the news...
      http://dublincore.org/news/communications/ - DCMI Update

   == Documents available for public comment
      http://dublincore.org/news/communications/public-comment.shtml
      http://dublincore.org/groups/public-comment.shtml

   == http://dublincore.org/documents/dcq-rdf-xml/
      http://dublincore.org/documents/dcmes-xml/
      http://www.ukoln.ac.uk/metadata/resources/dc/dc-xml-guidelines/

   Issues related to the registry
   ----

   http://wip.dublincore.org:8080/registry/Registry - three prototypes (Apr 2002)

http://www.jiscmail.ac.uk/lists/dc-registry.html
http://dublincore.org/groups/registry/
http://dublincore.org/groups/registry/VMT-Registry-Roadmap-v1.2.ppt
http://dublincore.org/groups/registry/DCMI-reg-roadmapv4.html (Feb 18 2002)
http://wip.dublincore.org:8080/schemes/index.html
-- Vocabulary and Encoding Scheme Registration (prototype)

== DCMI Roadmap for development of Vocabulary Management and
   Schema Registry Systems, version Feb 18 2002 (as of Apr 18), at
      http://dublincore.org/groups/registry/DCMI-reg-roadmapv4.html:
   "sections 3 and 4 await comment from Usage Board".

== Registry requirements: link from terms to UB decisions?

== Eric Miller prototype
      http://www.w3.org/2001/10/navigate/ - successor to potlach.org (Nov 02 2001)

Issues related to encoding schemes

== Candidates for approval:
      http://www.lub.lu.se/~traugott/drafts/DC-Vocabulary-Qualifiers.html
      (Apr 2002)

== Guidelines,
      http://www.lub.lu.se/~traugott/drafts/vocab-guide3.html
      (Mar 2002) must go onto Web at
      http://dublincore.org/usage/documents/vocabulary-guidelines/
      (Apr 18 2002)

== Vocabulary and Encoding Scheme Registration (prototype)
      http://wip.dublincore.org:8080/schemes/index.html (Apr 2002)

== Is Unicode needed? User interface in several languages?
      (Traugott, Mar 2002)

== Make all subject vocabulary qualifiers available from DCMI
      Registry? (Traugott, Mar 2002)

== "Do all the vocabularies need to be represented in an RDF
      schema eg for validation purposes?" (Traugott, Mar 2002)

== Should the five "recommended" subject schemes (DDC, UCD,
      LCC, LCSH, MeSH) voted in to the terms namespace remain
      there? (Traugott, Mar 2002)

== Should DCMI register encoding schemes for Identifier, or
      force people to register schemes externally to DCMI, either
      as new URI schemes or as URN NIDs or both? URI, DOI, IDBN,
      ISSN, SICI, and OpenURL have been proposed at various times
      (Andy, Sep 17 2001). ISSN and ISBN have been formally
      registered as URN Namespaces
      http://www.iana.org/assignments/urn-namespaces. That is
      they are already covered by URI - no further action will be
      needed on our side other than to point this out to working
      groups. (Roland, Dec 2001)

== Distinguish between cross-domain and domain-specific for Type
      and Subject encoding schemes?

== How should DCMI register encoding schemes for elements other than
      Subject -- via Web form or via formal UB review?

== Encoding scheme "URI" for Description and Rights (Rebecca, Oct 12 2001)

== Articulate guidelines on using URIs as values, for example: In Identifier, Relation and Source, the use of 'URI' as an encoding scheme means "here is the value and it is a URI". In Rights and Description, the use of 'URI' as an encoding scheme would mean "the value can be found at the following URI". These two things are not the same and therefore shouldn't be encoded using the same mechanism. (Andy, Oct 14 2001)

== Who can register an encoding scheme for their subject vocabulary? Anyone ("my vocabulary")? A project? Or only "publicly recognized schemas"? Some sentiment towards tight requirements on maintenance bodies. (Stuart, Diane, Roland, Dec 09 2001)

== Do we need to document registrations of encoding schemes as "decisions" in a way analogous to term proposals (assign numbers, Web pages, etc)? Probably not. (Stuart, Dec 12 2001)

== Registration of schemes for Type.

== Should all encoding schemes for Identifier hold also for Relation and Source? Do we need to capture this in our documentation?

== Backlog of subject encoding scheme proposals: SWB (Berthold Weiss), mathematical subject headings (Hans Becker)

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-----------------------------------------------------------------------------
Issues related to naming
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== "Adjective-like" versus "stand-alone" names for element refinements. There seems to be a consensus that names should now be "stand-alone" (eg, "alternativeTitle" versus just "Alternative"). Do we need to capture this in our documentation? And if we henceforth follow this style, what to do with the legacy recommended qualifiers Alternative, Created, Valid, Available, Issued, Modified, Spatial, and Temporal? (see Andy posting, June 2001)

== If we agree henceforth use only stand-alone names, then we have following options:
   1) We leave dcq:alternative alone (along with Created, Valid, Available, Issued, Modified, Spatial, and Temporal) and switch to using stand-alone names in the future.
   2) We change their names in both the Recommendation document and in the RDF schema thereof.
   3) We create a redundant set of names (e.g., dcq:alternativeTitle) with equivalency relationships to the existing names.
   Andy -- doubts if option 2) is possible.
        -- likes 3) but doesn't know if it is technically possible - investigate?
        -- could live with 1) though I don't think it is ideal.
   Diane: option 1 is the most practical.
   Andy: should we see
   meta name="DCQ.created" scheme="W3CDTF" content="2001-06-15"
   in HTML meta tags?

== Case of element names 'title' vs. 'Title' (Andy, Jan 2002)

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-----------------------------------------------------------------------------
Issues for the Web team
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== We see a requirement to be able to annotate specific
    documents with time-stamped comments -- instead of reissuing
    a document with "errata" attached, simply annotate?

== For Web Team: we need a simple Web form to submit edited
    documents.

== Perhaps there needs to be a "see also" reference from the term
   declaration to the Usage Guide and to documentation prepared by
   working groups in support of the terms at the proposal stage.

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-----------------------------------------------------------------------------
Issues of process and Usage Board role/jurisdiction
-----------------------------------------------------------------------------
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== Need two extra weeks before one-month comment period in order to
    get stuff up on Web, etc.!!!

== http://128.253.121.110/DC-UB/DC-UBprocess8.html not yet
    posted on Web site.

== DCMI has indicated an intention to get into namespace
    hosting; said to be out of scope for UB. To what extent are
    the policies governing NSes outside the UB jurisdiction
    (naming, persistence, quality control)? (Apr 2002)

== Potential role of UB in oversight of schemas (RDF and XML
    encodings) used in the DCMI registry or published on the Web
    for use in Semantic Web applications.

== In approving new term proposals, what weight should UB give
    to working-group process, buy-in, and proven implementation
    experience. To what extent is UB in job of a
    priori/posteriori. How strict? If nobody complains, is
    that sufficient proof to the UB that there are no adverse
    effects?

== On whose judgement and with whose approval can the UB revise
    and evolve its own process? Currently, there is a
    placeholder in the process document (Stuart Dec 12 2001)

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-----------------------------------------------------------------------------
DCSV - Structured values
-----------------------------------------------------------------------------
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http://www.mailbase.ac.uk/lists/dc-ac/2000-08/0018.html
http://www.mailbase.ac.uk/lists/dc-ac/2000-08/0025.html
http://dublincore.org/documents/2000/07/28/dcmi-dcsv
http://dublincore.org/documents/labelled-values-syntax
http://dublincore.org/documents/dcmi-point
http://dublincore.org/documents/dcmi-period
http://dublincore.org/documents/dcmi-box
http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0204&L=dc-usage&O=A&P=2547 (Andy)

== The status of the DCSV "recommendation" itself needs to
    be clarified. It was never voted on as an approved encoding
    scheme and is not part of the dcterms namespace; rather, it
    was "silently" (and at the time controversially) given
    "recommended" status in circa August 2000 by the Directorate

on the grounds that its recommendation was implied by our
approval DCMI Point, Box, and Period.

Other

== Definition of "title" should be reworded to eliminate an
    inherent assumption that a resource must have a
    well-defined, unique, formal title. (Roland, Oct 2 2001)

== CEN/CWA is defining a mapping between DC and ISO 19115. Do
    we need to look at this?

== As proposed in 1999, the Format qualifier "medium" is only
    applicable to physical resources and "IMT" is only applicable
    to virtual resources. Do we need to revise the official
    definitions? (Andy, Feb 25 2002)

== RDDL in effect defines its own core element set for resource
    discovery -- one that overlaps in awkward ways with Dublin
    Core. See http://www.openhealth.org/RDDL/ and
    http://www.openhealth.org/RDDL/rddl.rdfs

== Is it acceptable to use DC metadata to describe non-DLOs
    (such as people, organisations, museum artefacts, events,
    hurricanes, species)? Or: does DCMI want to say that it is
    not acceptable to describe these kinds of things using DC
    metadata? If not, do we need to indicate somehwere that the
    current DCMI Type list is _not_ intended to be an exhaustive
    list of the kinds of resources that DC can be used to
    describe? (Andy, Jan 2002)

== To what extent is the current list of types in the DCMIType
    list an exhaustive list of the kinds of resources that can
    be described using DC metadata? (Andy, Jan 2002)

== If it is acceptable to describe non-DLOs using DC metadata,
    does DCMI want to provide any best-practice guidelines for
    how to do it in specific instances, such as for people? If
    so, what DCMI WGs would do this? (Andy, Jan 2002)

== 2002-04-24: Andrew Wilson circulated, with John Roberts,
    a paper on records management/recordkeeping metadata.
    file://localhost/e:/u/attach/2002-04-24.DCMIResourceManagement-final.doc

== 2002-04-24 Deane Zeeman, deane.zeeman@nlc-bnc.ca
    The Treasury Board Secretariat Canada Interdepartmental Metadata
    Working Group (the body directing and coordinating metadata
    efforts in the Govt. of Canada) is assuming - always a
    dangerous practice - that scheme registration will be
    de-centralized; that we will be able to register schemes in our
    domain and count on DCMI to register schemes with broader
    coverage = (e.g. LCSH, DDC, etc). We are hoping that DCMI
    would refuse to register schemes in our domain and refer such
    attempts to our registry. Is this decentralized model in line
    with Usage Board thinking on the subject? Is it likely that
    such an issue would be discussing at the upcoming Usage Board
    meeting at UKOLN? I'd appreciate your take on this issue. I
    would certainly also appreciate any comments/suggestions you
    might have regarding the attachment.
    e:/u/attach/2002-04-24.Canada.registration_process.doc

==   Should DCMI use the term 'application profile' to describe
     sub-sets of its vocabulary? Arguments "contra": An application
     profile 'uses' standard terms in an optimised way for a
     particular application; there are an infinite variety of
     application profiles that could be constructed. DCMI has said
     it is not in the business of 'approving' an unlimited number of
     application profiles DCMI recommendations needs to advise on
     'generic' use of DCMI terms. Should we 'approve' particular
     application profiles which may well emerge in a fairly arbitrary
     way? How will DCMI distinguish between application profiles it
     wants to consider in the approval process and those it does
     not??

Andy on identifiers, Jan 2002

     I don't think there was any follow-up to my last posting
     on this subject? In any case, I've tried to write up
     some guidelines about encoding various commonly used
     identifiers as URIs in DC metadata. This issue pops up
     on the lists every now ang again, so it would be good to
     have something to refer to. See

     http://www.ukoln.ac.uk/metadata/dcmi/dc-identifiers/

     for my first draft. I'd like to send this to
     dc-architecture for comment - does that sound
     reasonable? Would anyone on this list like to disagree
     with my recommendations?

New Web pages

CHANGE REFERENCE TO DCT1 to dcmi-type-vocabulary!!!

Rachel:
     In particular, it is on the agenda in Bath to clarify whether
     a database of "decision" events is a good way to structure
     things. Perhaps the addition of a "decision" link to a term
     description could trigger a change of internal version of an
     individual term within the VMS. Instead of linking all of the
     supporting documentation for individual decisions directly to
     the term database, the decision database would be the thing
     that pulls together all supporting documentation and meeting
     notes that contextualize a change. In the term database,
     then, a new version of the term would be generated, edited
     in accordance with the decision, and the previous version
     would be flagged as obsolete.

     _ Also info on domains in case of domain-specific terms?

     The recent exchange of postings has raised to me some more
     fundamental issues with how we handle status. I want to post
     about this soon and hope we will have time to discuss in Bath.

     _ We also need to be clear who are the end-users of the VMS. As I see it the
     _ Usage Board is the user of the VMS, whereas other 'users' both human and
     _ machine interact with the registry.

     I agree.

     _ Another issue is where does the scheme registration take place.... in the
     _ Registry or the VMS.

In the VMS, I should think. There will be a need for internal
change tracking there as well -- might as well use the same model??

Improvements needed in Web documentation:
-- "accessibility" (Liddy), though I'm not sure what this means
   specifically for these documents...?
-- layout: wider spacing on Decisions (Liddy), others...?
-- font: not courier - which ones are "normal"...?
-- URI identifiers for terms should, ideally, not be "clickable"
-- Stuart wants different "view"

Issues related to elements-qualifiers:

== Should all encoding schemes for Identifier hold also for
    Relation and Source? Do we need to capture this in our
    documentation?

== Encoding scheme "URI" for Description and Rights (Rebecca,
    Oct 12 2001)

== Articulate guidelines on using URIs as values, for example:
    In Identifier, Relation and Source, the use of 'URI' as an
    encoding scheme means "here is the value and it is a URI".
    In Rights and Description, the use of 'URI' as an encoding
    scheme would mean "the value can be found at the following
    URI". These two things are not the same and therefore
    shouldn't be encoded using the same mechanism. (Andy, Oct
    14 2001)

Tom proposes:

-- The chair maintains the Agenda, which cites links to
   all supporting documentation, including JISCMAIL postings,
   that are relevant to the Usage Board agenda points.
   The shepherd or discussion leader for each agenda point
   will choose the relevant materials.

-- Unless IP issues are involved, all of the materials pointed
   to in the agenda should be archived at http://dublincore.org
   after the final pre-meeting version of the agenda has been
   distributed. [Alternatively, proposals could be archived
   before the public comment period?]

-- A meeting packet of these materials will be distributed as
   a PDF file.

-- After the meeting, the archival version of the Agenda
   should be edited to point to the archival copies of the
   materials cited.

If we agree in Bath that this is a good method, we could use
them to flesh out Section 4.2 of Process.