Title: Agenda for DCMI Usage Board meeting, 9-10 October 2004 in Shanghai
Modified: 2004-10-02
Maintainer: Tom Baker
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Previous meeting: dublincore.org/usage/meetings/2004/03/ISSUES/
Description: This is the agenda of the Usage Board meeting to be held in Shanghai. All of the links listed in this page have been compiled into a one-file meeting packet in PDF.

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Venue: DC2004, Shanghai Library, Shanghai
Seminar Room 5207, 2nd Floor
Date: Saturday-Sunday, 9-10 October 2004

| | | | |
|---|---|---|---|
| Participants: | Tom Baker, chair | Andy Powell | Stuart Sutton |
| | Akira Miyazawa | Diane Hillmann | Traugott Koch |
| | Andrew Wilson | Rebecca Guenther | |
| Guests: | Pete Johnston | Eva Mendez | Liddy Nevile |

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I. Principles and process

| | | | | |
|---|---|---|---|---|
| 10:00-12:00 | 4 | 10" | 01: Follow-up to Bath meeting, 14-15 March 2004 | [Tom] |
| | 6 | 20" | 02: Revisions to Usage Board Process document | [Stuart] |
| | 26 | 15" | 03: Status of Proposals to the Usage Board | [Tom] |
| | 27 | 30" | 04: Abstract Model and Guidelines for Identifiers | [Andy] |
| | 52 | 15" | 05: Dublin Core Structured Values | [Andy] |
| | 53 | 15" | 06: Identifiers for DCMI Metadata Term Versions | [Tom] |
| | 64 | 15" | 07: Attributes of DCMI Terms ("Usage Board profile") | [Tom] |

II. Proposals to Review

| | | | | |
|---|---|---|---|---|
| 13:00-15:00 | 70 | 120" | 08: Terms proposed by Collection Description WG | [Andrew] |
| 15:30-17:30 | 91 | 120" | 09: MARC Relator terms and dc:contributor | [Rebecca] |
| 10:00-12:00 | 127 | 45" | 10: Term proposed by Accessibility Working Group | [Stuart] |
| | 136 | 45" | 11: Term proposed by Education WG | [Akira] |

III. Encoding schemes

| | | | | |
|---|---|---|---|---|
| 13:00-15:00 | 140 | 40" | 12: Approval of Encoding Schemes | [Traugott] |
| | 141 | 15" | 13: Encoding Scheme "ISO8601" | [Rebecca] |
| | 154 | 05" | 14: Encoding Scheme "NLM" | [Rebecca] |

IIII. Other

| | | | | |
|---|---|---|---|---|
| | 158 | 20" | 15: Type Vocabulary definitions and comments | [Stuart] |
| | 163 | 20" | 16: Problems with the definition of dc:date | [none] |
| | 169 | 20" | 17: Review of Application Profiles | [Tom] |
| 15:30-17:30 | 170 | 45" | 18: Frequently Asked Questions and AskDCMI | [Diane] |
| | 171 | 15" | 19: Preservation policy for Usage Board documentation | [Tom] |
| | 172 | 10" | 20: "DCX" - DCMI as a Namespace Host | [none] |
| | 175 | 10" | 21: What is "Simple Dublin Core"? | [Tom] |
| | 178 | 10" | 22: Other (mostly old) issues | [Tom] |
| | | 15" | 23: Wrap-up - summary of actions and next UB meeting | [Tom] |

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I. Principles and Process

10" SHANGHAI TOPIC 01: Follow-up to Bath meeting, 14-15 March 2004 [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/bath/

20" SHANGHAI TOPIC 02: Revisions to Usage Board Process document [Stuart]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/process/
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-08-27.process.html
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-09-01.email-digest.txt
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-09-16.amending-definitions.txt

15" SHANGHAI TOPIC 03: Status of Proposals to the Usage Board [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/proposal-status/

30" SHANGHAI TOPIC 04: Abstract Model and Guidelines for Identifiers [Andy]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/abstract-model/
http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/
http://www.ukoln.ac.uk/metadata/dcmi/term-identifier-guidelines/
http://www.ukoln.ac.uk/metadata/dcmi/rdf-values/
http://www.ukoln.ac.uk/metadata/dcmi/dc-usage/am-issues/

15" SHANGHAI TOPIC 05: Dublin Core Structured Values [Andy]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/dcsv/

15" SHANGHAI TOPIC 06: Identifiers for DCMI Metadata Term Versions [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/version-identifiers/
http://www.bi.fhg.de/People/Thomas.Baker/public/mmidc117.html

15" SHANGHAI TOPIC 07: Attributes of DCMI Terms ("Usage Board profile") [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/profile-usageboard/

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II. Proposals to Review

120" SHANGHAI TOPIC 08: Terms proposed by Collection Description WG [Andrew]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-collection/
http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/
http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/
http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/
http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/
http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/
http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/

120" SHANGHAI TOPIC 09: MARC Relator terms and dc:contributor [Rebecca]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-relators/
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-09-21.email-relators.txt
http://lcweb2.loc.gov:8081/cocoon/relators/relators.html
http://www.bi.fhg.de/People/Thomas.Baker/public/Agent-Roles-Guidelines5.txt
http://www.bi.fhg.de/People/Thomas.Baker/public/Element-refinement.html

45" SHANGHAI TOPIC 10: Term proposed by Accessibility Working Group [Stuart]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-accessibility/
http://www.ozewai.org/DC-term-proposal/prop-reqs-table2.html
http://www.ozewai.org/DC-term-proposal/overview.html
http://www.ozewai.org/DC-term-proposal/criteria.html

45" SHANGHAI TOPIC 11: Term proposed by Education WG [Akira]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-education/
http://www.ischool.washington.edu/sasutton/8-28-04/index.html

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III. Encoding Schemes

40" SHANGHAI TOPIC 12: Approval of Encoding Schemes [Traugott]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/registration/

15" SHANGHAI TOPIC 13: Encoding Scheme "ISO8601" [Rebecca]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-03.ISO8601.txt
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-09-21.email-digest.txt
http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-date&T=0&F=&S=&P=395

05" SHANGHAI TOPIC 14: Encoding Scheme "NLM" [Rebecca]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/nlm/
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-06-23.email-digest.txt

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IIII. Other

20" SHANGHAI TOPIC 15: Type Vocabulary definitions and comments [Stuart]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/type-definitions/
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-03-15.DCMIType-sas.html

20" SHANGHAI TOPIC 16: Problems with the definition of dc:date [none]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/definition-date/
http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-date&T=0&F=&S=&P=273

20" SHANGHAI TOPIC 17: Review of Application Profiles [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/profiles/

45" SHANGHAI TOPIC 18: Frequently Asked Questions and AskDCMI [Diane]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/faq/

15" SHANGHAI TOPIC 19: Preservation policy for Usage Board documentation [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/ub-documentation/

10" SHANGHAI TOPIC 20: "DCX" - DCMI as a Namespace Host [none]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/dcx/

10" SHANGHAI TOPIC 21: What is "Simple Dublin Core"? [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/simple-dc/

10" SHANGHAI TOPIC 22: Other (mostly old) issues [Tom]
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/other/

15" SHANGHAI TOPIC 23: Wrap-up - summary of actions and next UB meeting [Tom]

Title: Follow-up to Bath meeting
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/bath/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-12
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

BATH TOPIC 1: DCMI Naming Policy (Tom)
http://dublincore.org/usage/meetings/2004/03/ISSUES/docs-naming/

Done - see http://dublincore.org/documents/2004/04/05/naming-policy/.

BATH TOPIC 2: Encoding schemes for Library Application Profile (Rebecca)
http://dublincore.org/usage/meetings/2004/03/ISSUES/registration-proposals/

Moved forward to Shanghai:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/

BATH TOPIC 3: Registration of Vocabulary Encoding Schemes (Traugott)
http://dublincore.org/usage/meetings/2004/03/ISSUES/registration/
http://dublincore.org/usage/meetings/2004/03/ISSUES/registration-lightweight/

Moved forward to Shanghai meeting:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/registration/

BATH TOPIC 4: Proposed terms for a Collection Description profile (Andrew)
http://dublincore.org/usage/meetings/2004/03/ISSUES/terms-collection/

Done -
see http://dublincore.org/usage/decisions/2004/2004-02.Collection-terms.shtml

BATH TOPIC 5: Scope of DCMI Namespaces (Andy, Pete Johnston as guest)
http://dublincore.org/usage/meetings/2004/03/ISSUES/dcmi-namespaces/

Moved forward to Shanghai meeting:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/namespace-scope/

BATH TOPIC 6: DCMI Abstract Model (Andy)
http://dublincore.org/usage/meetings/2004/03/ISSUES/ - check link

Moved forward to Shanghai meeting:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/abstract-model/

BATH TOPIC 7: Guidelines for DC Application Profiles (Tom)
http://dublincore.org/usage/meetings/2004/03/ISSUES/docs-DCAPs/

Done: There was an action item on Tom to revise the CEN Guidelines
for DCAPs and seek formal approval of the revised version in CEN.
As of July 2004, however, the nature of the changes proposed
was running counter to discussion within CEN itself. Accordingly,
Tom postponed work on this pending clarification of various issues.

BATH TOPIC 8: PBCore Metadata Dictionary (Rebecca)
http://dublincore.org/usage/meetings/2004/03/ISSUES/profiles-pbcore/

Done -see
http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0406&L=dc-usage&T=0&O=A&P=7186
http://www.utah.edu/cpbmetadata/

BATH TOPIC 9: Review of Application Profiles (Tom)
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/profiles/

Done - changes in Process document to be approved in Shanghai:

http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/process/

BATH TOPIC 10: AskDCMI (Diane)
http://dublincore.org/usage/meetings/2004/03/ISSUES/askdcmi/

Moved forward to Shanghai:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/faq/

BATH TOPIC 11: Proposals for dc:rights-related terms (Andrew)
http://dublincore.org/usage/meetings/2004/03/ISSUES/terms-rights/

Done - see http://dublincore.org/usage/decisions/2004/2004-01.Rights-terms.shtml

BATH TOPIC 12: MARC Relator terms and dc:contributor (Rebecca)
http://dublincore.org/usage/meetings/2004/03/ISSUES/terms-relators/

Moved forward to Shanghai:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-relators/

BATH TOPIC 13: Dublin Core and OAI (Tom)
http://dublincore.org/usage/meetings/2004/03/ISSUES/oai/

Done (simply reported).

BATH TOPIC 14: Unfinished business (Tom, Diane, Stuart)
http://dublincore.org/usage/meetings/2004/03/ISSUES/etc-old/

Moved forward to Shanghai:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/type-definitions/

BATH TOPIC 15: Usage Board issues (Tom)
http://dublincore.org/usage/meetings/2004/03/ISSUES/usageboard/

Done - changes in Process document will be presented for approval
in Shanghai:
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/process/

Title: Revisions to the DCMI Process document
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/process/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-12
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherds: Diane and Stuart

In Bath, there was an action on Diane and Stuart to revise the Process document in various ways. These included the following major points (along with alot of minor points):

-- The UB will continue to accept proposals for DCMI encoding schemes through traditional channels. Diane and Stuart will formulate criteria for proposals and explain the UB stance. From BATH TOPIC 2 (on Encoding Schemes) there was a separate action on Rebecca to write a one-pager explaining what we learned from the discussion of the potential encoding schemes ATT, TGM2, SICI, ISBN, ISSN, DOI, GAC, and MARC Country Codes. However, this should perhaps be folded into the UB stance formulated by Diane and Stuart.

-- The UB felt that proposals for elements and element refinements which were intended to make statements about specific resource types would be acceptable. If the resource type addressed by such a proposal were limited to a specific domain, its proposed status should be "conforming" as opposed to "recommended". Stuart and Diane would weave this into the process document at http://dublincore.org/usage/documents/process/#four.

-- In Bath, we reaffirmed that the Usage Board can assign the the status of "conforming" to an Application Profile based on a review focused on elements and element refinements at the point of review [1,2,3]. The AP designated as "conforming" (i.e., a snapshot of the AP document at the time reviewed) would be archived on the DCMI Website. Changes to the AP should result in a new AP and resubmission to the UB (i.e., for new "time stamp"). Stuart and Diane would change the process document to reflect this "time stamp".

In August, Stuart posted a draft incorporating most of the necessary changes [4], and there was some discussion of details on the list [5].

In September, there was some discussion about the possibility of modifying the definition of dc:date, and Tom noticed that there seems not to be an explicit process for submitting and deciding on such proposals [9].

In Shanghai, we should aim at approving the changes already made and identify any changes still needed. Specifically, further changes to the Process document will be discussed in relation to the approval of Encoding Schemes generally [6,7,8].

[1] http://dublincore.org/usage/documents/process/#six
[2] http://dublincore.org/usage/documents/profiles
[3] http://dublincore.org/usage/meetings/2004/03/cwa14855-20040210.pdf
[4] http://www.bi.fhg.de/People/Thomas.Baker/public/2004-08-27.process.html
[5] http://www.bi.fhg.de/People/Thomas.Baker/public/2004-09-01.email-digest.txt
[6] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/registration/
[7] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/nlm/
[8] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/

[9] http://www.bi.fhg.de/People/Thomas.Baker/public/2004-09-16.amending-definitions.txt

# DCMI Usage Board Administrative Processes

| | |
|---|---|
| **Creator:** | Diane I. Hillmann |
| **Creator:** | Stuart A. Sutton |
| **Date Issued:** | [REVISE |
| **Identifier:** | [REVISE] |
| **Replaces:** | http://dublincore.org/usage/documents/2003/02/07/process/ |
| **Is Replaced By:** | Not Applicable |
| **Latest version:** | [REVISE] |
| **Description of document:** | This document describes the process by which the DCMI Usage Board reaches decisions on terms and application profiles, as well as its process for managing the registration of encoding schemes. |

## Index

### Part 1: Usage Board: Overview, Meetings, Documentation

1. Usage Board Membership
2. Meetings
3. Categories of Usage Board Decisions

### Part 2: Proposals: Form and Process

4. Proposals for Recommendations
5. Proposals for Registration of Encoding Schemes
6. Proposals for Registration of Application Profiles

## Part 1-Usage Board: Overview, Meetings, Documentation

### 1. Usage Board Membership and Participation

**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 year terms which are renewable. 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 a two year term which is renewable.
**1.5.** Liaisons from DCMI affiliates may be appointed by DCMI management in consultation with the Usage Board Chair.

**1.5.1.** Liaisons are non-voting but are encouraged to participate in discussion on the Usage Board list and at meetings.
**1.5.2.** Liaisons do not serve as shepherds.

**1.6.** 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

**2.1.** Scheduling

**2.1.1.** Meetings should be held 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 regular UB member attendance at meetings should be supported as much as possible by DCMI.

**2.2.1.** Funding for Liaisons attendance at UB meetings should be supported by their institution.

**2.3.** Meeting agenda

**2.3.1.** The UB Chair maintains the agenda, which cites links to relevant supporting documentation, including JISCMAIL postings.
**2.3.2.** All materials pointed to in the agenda are archived at http://dublincore.org/usage/meetings/ after the final pre-meeting version of the agenda has been distributed. After the meeting, the archive version of the agenda is edited to point to these archive copies.

**2.4.** Attendance by members

**2.4.1.** Members must attend at least one meeting in a given year to maintain membership in good standing.
**2.4.2.** Members who miss two meetings in succession may be replaced by the DC Directorate.

**2.5.** Attendance by others

**2.5.1.** Attendance at UB meetings by other than the UB is by invitation.

**2.5.1.1.** People interested in attending should request an invitation via the UB Chair or the Managing Director.

**2.5.2.** Participation in discussion of proposals by any interested parties is encouraged.

**2.6.** Agenda preparation and distribution

**2.6.1.** The UB chair is responsible for preparing the meeting agendas and assigning shepherds to proposals.
**2.6.2.** Agenda items shall include the name and email address of the UB member responsible for shepherding the proposal through the UB process.
**2.6.3.** Agendas shall be available at http://www.dublincore.org/usage/meetings/ a few weeks before the meeting.

**2.7.** Important decisions will be assigned a number for citation purposes and documented on the DCMI website.

### 3. Categories of Usage Board Decisions

**3.1.** ***Recommended*****:** Elements, Element Refinements, and DCMI-maintained Vocabulary Terms (e.g., member terms of the DCMI Type Vocabulary) useful for resource discovery across domains.
**3.2.** ***Conforming*****:** Elements, Element Refinements and Application Profiles may be assigned a status of conforming. Elements and Element Refinements assigned a status of conforming are those for which an implementation community has a demonstrated need and which conform to the grammar of Elements and Element Refinements, though without necessarily meeting the stricter criteria of usefulness across domains or usefulness for resource discovery.
**3.3.** ***Obsolete*****:** For Elements and Element Refinements that have been superseded, deprecated, or rendered obsolete. Such terms will remain in the registry for use in interpreting legacy metadata.
**3.4.** ***Registered*****:** Used for Vocabulary Encoding Schemes and language translations for which the DCMI provides information but not necessarily a specific recommendation.

## Part 2-Proposals: Form and Process

### 4. Proposals for Terms

**4.1.** Sources of proposals may be:

**4.1.1.** DCMI working groups

**4.1.1.1.** Existing working groups
**4.1.1.2.** Working groups established for the purpose of developing proposals

**4.1.2.** Metadata implementers

**4.1.3.** UB itself

**4.2.** Requirements for proposals for "Recommended" and "Conforming" status

**4.2.1.** 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 suggested 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/principles) [NOTE: Encoding schemes are registered using a separate process] |
| **Term qualified** | If the proposed term is an element refinement, which term does it qualify? |
| **Why needed** | A justification of the need for the proposed term |
| **Working Group or community support** | Demonstration and documentation that the proposed new term has substantial support of Working Group members (if applicable) as well as others in the relevant community. Evidence of such support can include votes held on mailing lists or in face-to-face meetings or positive endorsements from members of the DC-GENERAL mailing list. |
| **Proposed status** | Is the term proposed as Recommended or Conforming? |
| **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 |

**4.2.2.** To be supplied by the UB shepherd:
**4.2.2.1.** A summary history of the post-announcement discussion

**4.3.** Guidelines: The following criteria are offered as guidelines for 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.

**4.3.1.** Criteria for evaluating a term proposal

**4.3.1.1.** Clarity

**4.3.1.1.1.** Can the term be clearly defined?
**4.3.1.1.2.** Can the semantics of the proposed element or element refinement be expressed precisely, unambiguously, and briefly?

**4.3.1.2.** Practicality

**4.3.1.2.1.** Is the term practical?
**4.3.1.2.2.** How difficult would it be for people creating metadata to comprehend the semantics of the proposed element or element refinement and to apply it reasonably in the description of resources?

**4.3.1.3.** Placement

**4.3.1.3.1.** Does the term refine an existing element?
**4.3.1.3.2.** If the proposed term is an element, can it reasonably be handled as effectively as an element refinement or encoding scheme for an existing element?

**4.3.1.3.3.** Are there alternative ways of implementing the term? Within the conceptual framework of the Dublin Core Element Set (i.e., element/element refinements and encoding schemes), are there alternative ways to achieve the ends sought?

**4.3.1.4.** Needs

**4.3.1.4.1.** Is there a clear requirement in existing implementations for the term in support of resource discovery?
**4.3.1.4.2.** Is there a demonstrated need for the proposed element or element refinement?
**4.3.1.4.3.** Are there existing implementations or encoding schemes, etc., which use the term?

**4.3.1.5.** Fits with other DCMI-maintained terms

**4.3.1.5.1.** Follows existing principles of refinement
**4.3.1.5.2.** Is well-formed
**4.3.1.5.3.** Does not conflict with or create ambiguity with regard to existing DCMI-maintained terms
**4.3.1.5.4.** Does not create problems for existing legacy implementations if those implementations have followed recommended practice

**4.4.** Decision tree for assessing the need for a new term

**Decision Tree Table**

| | | |
|---|---|---|
| **Condition 1:** | Can the need be solved with a vocabulary encoding scheme for an existing DCMI Element or Element Refinement? | If so, do that; else … |
| **Condition 2:** | Can the need be solved through an application profile that references an element or element refinement from an existing and recognized non-DCMI namespace? | If so, do that; else … |
| **Condition 3:** | Can the need be solved with a new refinement for an existing DCMI element? | If so, do that; else … |
| **Condition 4:** | Create a new DCMI Element (and, if necessary, Element and Vocabulary Encoding Scheme) to meet the need. | |

**4.5.** Process for Moving Proposals

**4.5.1.** Appointment of Shepherds

**4.5.1.1.** Each proposal shall be assigned a shepherd by the UB chair from among the UB membership.
**4.5.1.2.** Shepherds should have knowledge of the proposal issues or be connected to the WG originating the proposal.
**4.5.1.3.** Responsibilities

**4.5.1.3.1.** Monitor discussion on relevant lists (shepherds should be members of the relevant DC WG list during the time of consideration of a proposal and are encouraged to join in the discussion to ensure that all relevant issues are exposed during the discussion period).
**4.5.1.3.2.** 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).

**4.5.1.3.3.** Serve as liaison to the relevant WG or community during the time the proposal is under discussion and after a decision has been made.
**4.5.1.3.4.** Verify registration information for the DCMI Web Team.
**4.5.1.3.5.** Prepare draft of UB official decision on the proposal for review and approval by the UB.

**4.5.2.** Pre-announcement process

**4.5.2.1.** Proposer must inform the DCMI Managing Director and the UB Chair of the intent to submit a proposal at the earliest possible time in the proposal's development so that the UB Chair can assign a UB member to serve as shepherd for the proposal process and to calendar: (1) the deadline for submission of the proposal; and (2) the date the UB will deliberate and make its decision which must be at least six weeks after the proposal submission deadline.
**4.5.2.2.** No later than six weeks before the submission deadline, the proposer will provide the UB Chair with a draft of the proposal for distribution to the shepherd.
**4.5.2.3** At the time the draft of the proposal is distributed to the shepherd, the UB Chair will schedule a conference call to discuss the draft among, at a minimum, the propose, the shepherd and the UB Chair. Others participants may be invited at the discretion of the proposer, the shepherd and the UB Chair. Notes capturing significant issues discussed during the call will be recorded and distributed to the call participants and the UB members.
**4.5.2.4.** No later than the deadline for submission set by the UB Chair, the proposer shall submit the finished proposal to the DCMI Managing Director and the UB Chair.
**4.5.2.5.** Proposal is given preliminary review for completeness by DCMI Managing Director and UB Chair.
**4.5.2.6.** If complete and no revisions needed, proposal is circulated to UB members and announced for public comment by the Managing Director. A period of two weeks will be allowed between the date of the decision on completeness and the public announcement of the proposal to provide time for preparation of the supporting materials for public dissemination.
**4.5.2.7.** If incomplete or revisions needed, proposal is returned to originator, with request for revision or additional information.
**4.5.2.8.** Throught out the periods of discussion and deliberations, UB members are free to comment and join as individuals in listserv discussions of the proposal. Opinions expressed by UB members during such discussions should not be considered official opinions of the UB.
**4.5.2.9.** Between the close of the public comment period and the UB meeting, the shepherd shall prepare the final version of the proposal and distribute it to the UB.
**4.5.2.10.** The benchmark dates in the proposal process shall follow the pattern set out in the table below:

| Action | Task Description | Minimum Task Duration | Minimum Cummulative Start Time | Actors |
|---|---|---|---|---|
| Submission: Intention to Propose | See section 4.5.2.1 above | 4 weeks | 16 weeks before UB meeting | DCMI Executive Director<br>UB Chair<br>Proposer<br>Shepherd |
| Submission: Draft Proposal | See sections 4.5.2.2-3 above | 5 weeks | 12 weeks before UB meeting | UB Chair<br>Proposer<br>Shepherd |

| | | | | |
|---|---|---|---|---|
| Submission: Proposal Deadline | See section 4.5.3.4 above | 2 weeks | 7 weeks before UB meeting | DCMI Executive Director<br>UB Chair<br>Proposer<br>Shepherd |
| Comment Period | See section 4.5.2.6 above | 4 weeks | 5 weeks before UB meeting | DC-General Participants<br>Proposer<br>Shepherd |
| Preparation and Transmittal Final Proposal | See section 4.6.2.9 above | 1 week | 1 week before UB meeting | Shepherd |

**4.5.3.** Announcements

**4.5.3.1.** Announcements of comment period for proposals to be discussed by the UB shall be made on the DC-General list and other relevant lists.
**4.5.3.2.** Announcements of proposals shall be made by the DCMI Managing Director.
**4.5.3.3.** Announcements will include:

**4.5.3.3.1.** Links to relevant information to be considered with the proposal
**4.5.3.3.2.** Relevant deadlines for comments
**4.5.3.3.3.** Addresses for comment submission
**4.5.3.3.4.** Information about UB meeting at which the proposal will be discussed, including place, time, and how to request an invitation to participate
**4.5.3.3.5.** Name and contact information for the assigned shepherd

**4.5.4.** Communication Responsibility Table

**Communication Responsibility Table**

| What | Where | Who | Comment |
|---|---|---|---|
| Proposal draft posted | WG list, DC-General | WG Chair | |
| Proposal added to UB agenda | UB Website, UB list | UB Chair | |
| Proposal announced for public comment | DC-General | DCMI Managing Director | |
| Usage Board Outcome | DC-General | DCMI Managing Director | |

**4.5.5.** Comment period

**4.5.5.1.** Comment period on proposals should be managed on the DC-General list.
**4.5.5.2.** Comment periods should be at least one month in length and commence at least six weeks before the UB meeting at which action is to be taken.
**4.5.5.3.** 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. The public discussion must start at least six weeks before the UB meeting at which the issues will be discussed.

**4.5.6.** Voting

**4.5.6.1.** Voting shall be limited to scheduled meetings and conference calls.
**4.5.6.2.** Voting shall be limited to UB members present at the meeting or conference call and able to participate in the discussion.
**4.5.6.3.** 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).
**4.5.6.4.** 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 physically or virtually, for the relevant discussion.
**4.5.6.5.** A proposal is approved if more than 50% of assigned votes in are in favor and fewer than 25% of assigned votes are against the proposal. Every effort will be made to achieve a firm consensus on a proposal before it is deemed approved.

**4.6.** Decisions of the UB are forwarded to the DCMI Directorate for endorsement and approval.
**4.7.** Registration of UB Decisions on Proposals

**4.7.1.** A document explaining the UB decision regarding a proposal will be written in a timely fashion by the shepherd and approved by the UB.

**4.7.1.1.** The decision will include brief statements of recommendations being issued and detailed explanations of UB decisions not to issue recommendations.
**4.7.1.2.** UB decisions will be in a form determined by the UB and numbered consecutively for the purpose of citation.
**4.7.1.3.** 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.

**4.7.2.** Recommended terms will be put into the official DCMI documentation by the UB Chair.

## 5. Proposals for Registration of Encoding Schemes [SECTION 5 UNDER REVISION BY DIANE]

[NOTE: Some items deleted; Communication Table deleted.]

**5.1.** Submissions of new encoding schemes may be forwarded to the UB Chair no later than six weeks prior to the next scheduled UB meeting.
**5.2.** A shepherd will be assigned to evaluate the submissions. Shepherd assignment will be based on:

**5.2.1.** Knowledge of a particular scheme
**5.2.2.** Knowledge of the language used in the scheme
**5.2.3.** Interest or knowledge of a particular subject or topical area covered by the scheme
**5.2.4.** Time the member has available for such tasks

**5.3** The UB chair will not shepherd individual submissions, but will keep track of submissions and ensure that all are resolved in some manner.
**5.4.** The shepherd will be responsible for verifying the submitted information:

**5.4.1.** Name of the scheme
**5.4.2.** Availability and maintenance status
**5.4.3.** Appropriateness of the maintenance agency
**5.4.4.** Uniqueness and appropriateness of the proposed token
**5.4.5.** Possible use with elements not specified in the proposal

**5.5.** 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.
**5.6.** The shepherd will edit the submission and complete the registration process by submitting the information to the DCMI Web Team.[NOTE: Whether or not this is sufficient depends on whether we are still planning to maintain a

simple web page of vocabularies.]
**5.7.** The DCMI Web Team will report to the UB list when registration has been completed.
**5.8.** The UB chair will announce new schemes as needed.
**5.9.** Communication Responsibility Table

## 6. Proposals for Registration of Application Profiles

**6.1.** Sources of proposals

**6.1.1.** DCMI working groups or working groups established for the purpose of developing one or more proposals
**6.1.1.1.** Existing working groups
**6.1.1.2.** Working groups established for the purpose of developing proposals

**6.1.2.** Metadata implementers, established projects or research groups
**6.1.3.** UB itself

**6.2.** For the purposes of review by the Usage Board:

**6.2.1.** The Usage Board is interested in reviewing application profiles that make substantial use of Dublin Core elements. The review of application profiles by the Usage Board serves to:

**6.2.1.1.** analyze the usage of Dublin Core within significant implementations;
**6.2.1.2.** assign a DCMI stamp of approval;
**6.2.1.3.** promote the sharing of application profiles between communities; and
**6.2.1.4.** identify new terms as candidates for inclusion in DCMI namespaces.

**6.2.2.** Application profiles must provide, for each term, an identifier of the element set where it is defined, ideally in the form of URIs for individual terms.
**6.2.3.** If the terms in an application profile describe anything other than generic "resources" (the typical domain of Dublin Core), the application profile must make this clear. This is particularly important if an application profile is based on a data model that describes multiple classes of resources, such as agents or collections.
**6.2.4.** It is recommended that application profiles be prepared using previously reviewed application profiles be prepared using the Dublin Core Application Profile guidelines published by CEN (ftp://ftp.cenorm.be/public/ws-mmi-dc/mmidc076.zip).
**6.2.5.** Each application profile must provide, or point to, a short text that describes:

**6.2.5.1.** The context and purposes in which the application profile is used or is likely to be used.
**6.2.5.2.** The organizations or individuals involved in its development and a capsule history thereof.
**6.2.5.3.** Any arrangements, policies, or intentions regarding the future development and maintenance of the application profile.

**6.3.** Review of Application Profiles by the Usage Board

**6.3.1.** An application 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.
**6.3.2.** 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 not directly related to Dublin Core; strictly speaking such terms are outside the scope of Usage Board review.
**6.3.3.** The use of terms related to Dublin Core (such as refinements of Dublin Core elements, or Dublin Core elements that have been constrained for particular contexts) will be evaluated from the standpoint of semantic conformance, grammatical principle (eg, "dumb-down"), clarity, and

good practice.

**6.4.** Publication and use of Usage Board Reviews

**6.4.1.** An application profiles that "pass" review will be assigned the status of 'conforming' and a date stamp. Changes to the application profile will be considered a new application profile and will require a new submission to the UB and a new timestamp.
**6.4.2.** For application profiles that "pass" review, the Usage Board will publish a Review on a Web page for application profiles.
**6.4.3.** Each Review will include, at a minimum:

**6.4.3.1.** Any comments from the Usage Board on the application profile.
**6.4.3.2.** Pointers to locally archived copies of the application profile as originally submitted and (if necessary) as subsequently amended in light of Usage Board comments.
**6.4.3.3.** A pointer to the "latest version" of an application profile held by its maintainers.

**6.5.** Review represents a form of recognition, and its URL will be persistent for purposes of citation.

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Date: Fri, 27 Aug 2004 05:04:54 -0700
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Proposed revisions to the UB Process Document
To: DC-USAGE@JISCMAIL.AC.UK

---

All, below please find the URL for the current draft revisions of the UB Process document. The changes to the document are in red. The changes include a raft of revisions stemming from our last two face-to-face meetings as well as minor ongoing edits as we tinker our way to perfection.

http://content.nsdl.org/dih1/UB_Process_(sas_dih).htm

While we'll itemize below what Diane and I consider major changes, there was one point that came up as we prepared the revised draft that probably needs some discussion. These revisions (as well as some of the previous revisions) involve both substantive changes the renumbering of sections. The gist of Diane and my discussion has to do with problems in other documents that reference the process document without providing the URL to the "version". We think that all UB references to its process document should always include the appropriate version's URL.

SECTION 1: Usage Board Membership and Participation

There are two major changes to this section. The first is a revision to the potential terms of UB members. The revised text loosens the constraints on terms for both UB members and the chair by making the two-year terms simply renewable. The second change (1.5) adds text to handle participation of liaisons.

SECTION 2: Meetings

The changes in this section again result from accommodating the addition of liaisons. The changes make clear that DCMI direct financial support of UB members meeting attendance does not include funding for liaisons.

SECTION 4: Proposals for Terms

The language in section 4.1 has been "softened" through the addition of the phrase "may be" in order to suggest that the sources that follow need not be considered a closed list but that proposals may come from other appropriate sources. Similarly, some of the language in the 4.2.1 Proposal Requirements Table has also been "softened." First we have added the word "suggested" to term definitions since the UB has traditionally taken limited liberties where it has seen fit with the names of terms. We again add text regarding support for a proposal broadening the language to include demonstrated support by "others in the relevant community."

There are substantial proposed revisions section 4.5.1.3. Responsibilities [of Shepherds] that we hope reflect the UB discussion about getting UB involvement in the proposal process going as early as possible in the life-cycle of a proposal. In a similar vein, the proposed revisions to section 4.5.2 Pre-Announcement Process we hope reflects our discussions regarding the UB providing as much assistance to proposers as early in the process as possible. This includes the addition of a table with "benchmark dates" ... our attempt to provide some additional structure to the proposal life-cycle.

Section 4.5 [UB] Voting has been revised to reflect the Board
of Trustees suggestions regarding voting majorities.

SECTION 5: Proposals for Registration of Encoding Schemes

Minor changes were made here to reflect (we hope) the current
state of UB thinking with regard to the registration of
encoding schemes.

SECTION 6: Proposals for Registration of Application Profiles

First, we added language to broaden the potential sources of
application profile proposals beyond the DCMI working groups.
(Note: There is a formatting problem with sections 6.1.2
and 6.1.3 that needs fixing!). We also included language
under 6.2.4 referencing the CEN AP guidelines. Lastly, we
added language regarding the time-stamping of APs that have
"passed" UB review.

Stuart & Diane

---

Date: Mon, 30 Aug 2004 20:59:45 +0200
From: Thomas Baker <thomas.baker@bi.fhg.de>
Subject: Re: Proposed revisions to the UB Process Document

---

Stuart, Diane,

Many thanks for the thorough and careful revision of the
Process. I will put this into the evolving agenda along
with a brief summary of open questions (I have one or two in
addition to the ones you list).

May I suggest that references to the process document could be
made a bit easier by adding a section, just under the header,
listing the full URL references of the various anchors embedded
in the text:

1. Usage Board Membership and Participation
   http://dublincore.org/usage/documents/process/#one
2. Meetings
   http://dublincore.org/usage/documents/process/#two
3. Categories of Usage Board Decisions
   http://dublincore.org/usage/documents/process/#three
4. Proposals for Terms
   http://dublincore.org/usage/documents/process/#four

   Types of status
   - http://dublincore.org/usage/documents/process/#recommended
   - http://dublincore.org/usage/documents/process/#conforming
   - http://dublincore.org/usage/documents/process/#obsolete
   - http://dublincore.org/usage/documents/process/#registered

   4.3. Guidelines for developing a proposal
        http://dublincore.org/usage/documents/process/#four.3

   4.5. Process for moving proposals
        http://dublincore.org/usage/documents/process/#moving-proposals

5. Proposals for Registration of Encoding Schemes
   http://dublincore.org/usage/documents/process/#five
6. Proposals for Registration of Application Profiles
   http://dublincore.org/usage/documents/process/#six

On Fri, Aug 27, 2004 at 05:04:54AM -0700, Stuart Sutton wrote:
> providing the URL to the "version". We think that all UB

> references to its process document should always include the
> appropriate version's URL.

If you are suggesting that references to anchors should also
cite the specific historical version, then all of the above
could be given in the form:

http://dublincore.org/usage/documents/2003/02/07/process/#six

On Fri, Aug 27, 2004 at 05:04:54AM -0700, Stuart Sutton wrote:
> http://content.nsdl.org/dih1/UB_Process_(sas_dih).htm

I would like to request that you consider not using "(" and
")" in the URLs. I see from RFC 2396 that these are in fact
legal characters for URIs; unfortunately, they break all of
the simple tools I use to manage URLs :-(

---

Date: Mon, 30 Aug 2004 12:04:11 -0700
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Re: Proposed revisions to the UB Process Document
To: DC-USAGE@JISCMAIL.AC.UK

---

Tom, I believe we are saying that references to anchors contain version
references. In your example below for referencing section 6, it might
be that through other additions and changes, what used to be section 5
in the old version is section 6 in the new or that the substance of the
section has changed (we have been know to change out minds :)). It is
important that the references in other documents be absolutely clear and
that seems to me to mean referencing the document version as well as the
section.

Stuart
P.S. Sorry about the elipses in the URL ... just a way for us to keep
our drafts straight.

---

Date: Tue, 31 Aug 2004 09:43:03 +0200
From: Thomas Baker <thomas.baker@bi.fhg.de>
To: A mailing list for the Dublin Core Metadata Initiative's Usage Board <DC-USAGE@JISCMAIL.
AC.UK>
Subject: Re: Proposed revisions to the UB Process Document

---

On Mon, Aug 30, 2004 at 12:04:11PM -0700, Stuart Sutton wrote:
> Tom, I believe we are saying that references to anchors contain version
> references. In your example below for referencing section 6, it might
> be that through other additions and changes, what used to be section 5
> in the old version is section 6 in the new or that the substance of the
> section has changed (we have been know to change out minds :)). It is
> important that the references in other documents be absolutely clear and
> that seems to me to mean referencing the document version as well as the
> section.

Stuart,

The issue here is that URLs with anchors to specific points
in the document are being used for the purposes of citation.
Currently, those anchors semantically reflect the section
number, which can change between versions. For example:

http://dublincore.org/usage/documents/process/#one
http://dublincore.org/usage/documents/process/#two ...

I understand you to be suggesting that we a) keep the anchors
as is, but b) encourage people to cite the specific version
(I am assuming that when you say "reference the document

version" you actually mean "use the URL/URI of the specific
historical version):

        http://dublincore.org/usage/documents/2003/10/03/process/#one

...because the content of what in October 2003 was "section
one" may change from one historical version to the next.
A few of the anchors, on the other hand, cite a specific
section using a non-numbered handle, e.g.:

        http://dublincore.org/usage/documents/process/#recommended
        http://dublincore.org/usage/documents/process/#conforming

I suggest we do the following:

-- Clarify which points of the document need anchors (e.g.,
   the ones already anchored), then:
-- Decide whether we prefer the section-number naming style or
   the handle style (or a mix, as now), then:
-- Decide whether we want to encourage people to cite the generic
   "latest version" or a specific "historical" version.

When we have decided the above, then we should slightly expand
the section at the start of the paper -- the half-page section
currently called "Index" -- to include two things:

   -- Three or four sentences about citation style
   -- A list in clear text of the full URL for each citable anchor.

---

Date: Wed, 1 Sep 2004 09:02:37 +0200
From: Thomas Baker <thomas.baker@bi.fhg.de>
To: DCMI Usage Board <dc-usage@jiscmail.ac.uk>
Subject: Changes to UB Process document

---

Dear all,

> http://content.nsdl.org/dih1/UB_Process_(sas_dih).htm

What follows below is some comment, section by section, on
the revised Process document (above).  The executive summary:

-- Suggest putting full URLs of document anchors into the section Index
-- Suggest replacing Sections 1 and 2.1 with pointers and quotes from
   http://dublincore.org/about/bylaws/
-- Suggest some minor tweaks to wording in Section 4.5
-- Suggest re-structuring Section 4.5 as a chronological account of
   milestones leading up to a UB meeting summarizing, under each
   milestone, who is supposed to be doing what.  This would arguably
   be easier for proposers to understand.
-- Suggest that if Section 4.5 were restructured, table 4.5.2.10
   might even be deleted.
-- Point out several items from the Bath notes that may not yet be
   reflected in the revision.

I note that Diane is still working on Section 5.

If possible, it would be nice to clear up alot of these
issues before Shanghai so that we can spend less face time
on them at the meeting.  Clearing these up would close
out two of the topics pending from Bath.  According to
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/:

>     BATH TOPIC 15: Usage Board issues (Tom)
>          Agenda item: http://dublincore.org/usage/meetings/2004/03/ISSUES/usageboard/
>     and related topic:
>     BATH TOPIC 9:  Review of Application Profiles (Tom)

> Agenda item: http://dublincore.org/usage/meetings/2004/03/ISSUES/docs-naming/
> Current: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/profiles/
>
> ACTION (Stuart, Diane): Change process document to
> reflect that approval refers to an archived ("time
> stamped") version.
>
> ACTION (Diane, Stuart, Tom): To modify process
> document with regard to comment period. (This was
> originally in Topic 15.)
>
> ACTION (Diane, Stuart, Tom): To modify process document
> to try to preclude WG expenditure of time and effort on
> term proposals destined to meet with negative UB response:
>
> -- UB members may (or should) participate as
> regular DCMI participants in WG and public discussion
> period discussions of proposals, though without
> "representing" the UB.
> -- Shepherd assigned when "intent to submit" is announced.
> -- One month before proposal deadline, draft distributed
> and conference call held.
> -- Proposals must be submitted 6 weeks before meeting.
> -- Directorate/UB Chair have one week to post.
> -- Four-week comment period starts.
> -- At start of comment period, UB shepherd requests
> feedback on DC-Usage list in order to flag major issues.
> -- Relevant discussion cc'd to group chair/proposer.
> -- Proposer could be made guest member of Usage Board list.
> -- One week before meeting, comment period closes.
> -- Shepherd brings to the UB meeting a written account of
> discussion during the comment period.

Looking at http://content.nsdl.org/dih1/UB_Process_(sas_dih).htm
section by section:

---
SECTION "Index"
---

In two previous postings [1,2] I have suggested adding to this section full
URLs of any "anchors" to specific sections of the Process document along
with two sentences about best practice for their use in citation.

[1] http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-usage&T=0&O=A&P=744
[2] http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-usage&T=0&O=A&P=1135

---
1. Usage Board Membership and Participation
---

This entire section (except for 1.6) is now covered
almost verbatim, with few small differences, in
http://dublincore.org/about/bylaws, Article II, Section D,
"Selection and Appointment Process" and "Terms".
The only things missing are wording about liaisons being
encouraged to participate and that liaisons do not serve
as shepherds.

I would suggest we replace all of Section 1 with a pointer to
the above, perhaps quoting the full text from the Bylaws with
the disclaimer that the "most recent version" of the Bylaws
will always be definitive.

---
2.1. Scheduling
---

This section - along with 1.6 - is now covered by the Bylaws, Article II, Section D, "Communication and Documentation". The only difference is that the Bylaws are a bit vaguer about the requirement to hold two meetings per year.

I would suggest doing the same for this section as for Section 1.

---

2.3.2. About archiving meeting materials

---

I will write a half-page discussion paper about this issue for discussion in Shanghai. Basically, I am trying to streamline the work-flow and want to confirm that the PDF meeting packet could be sufficient as an archival record of those materials for the purposes of preservation (as opposed to making local copies of everything, then editing all of the URLs to point them, as I did for http://dublincore.org/usage/meetings/2004/03/ISSUES/).

No suggestion for change now - it will be on the agenda in Shanghai.

---

Point 4.5.1.3.2

---

This point still says that a shepherd should summarize comment-period discussion "either verbally or in writing", but the notes from Bath (above) show a stronger wording:

> -- Shepherd brings to the UB meeting a written account of
> discussion during the comment period.

I suggest we tighten this ("written" could be just one paragraph, but at least we then have something for the records).

---

Point 4.5.1.3.4

---

What is "registration information" - it is not defined anywhere (this is perhaps related to Diane's ongoing revision of Section 5?).

Suggest we re-think this point...

---

Point 4.5.2.3

---

I only vaguely recall discussing a _requirement_ that the UB Chair schedule a conference call for each proposal -- that is a significant requirement, and I wonder why email cannot suffice, at least in some cases. Also, I do not see that point captured in the Bath notes above.

I suggest softening the language to a suggestion ("might consider" ... "in cases where"... or whatever).

---

Point 4.5.2.6

---

The Bath notes (above) say:
> -- Directorate/UB Chair have one week to post.

But this point says: "A period of two weeks will be allowed...".

More generally, I'm wondering if the presentation of the

process in 4.5.2 could not be simplified a bit. For example, could one replace _all_ of the points under 4.5.2 (the table 4.5.2.10 included) with a chronological structure -- e.g., a simple sequence summarizing who needs to do what at each milestone, working back from the UB meeting -- e.g., at two months before the meeting, at six weeks, at one week, etc.? That would perhaps be easier for outsiders to digest and follow.

---
Point 4.5.2.8
---

Suggest:
s/Throught out/Throughout/
s/listserv/mailing-list/

---
Point 4.5.2.10
---

The table does not print out with borders, making it a bit hard to read.

Also, I'm wondering if the column "Minimum Task Duration" is necessary -- I find it a bit confusing.

---
Other points from Bath
---

I wasn't sure whether these points are included somewhere:

> -- At start of comment period, UB shepherd requests
> feedback on DC-Usage list in order to flag major issues.
> -- Relevant discussion cc'd to group chair/proposer.
> -- Proposer could be made guest member of Usage Board list.

---

Date: Thu, 16 Sep 2004 15:12:58 +0200
From: Thomas Baker <thomas.baker@bi.fhg.de>
To: DCMI Usage Board <dc-usage@jiscmail.ac.uk>
Cc: Makx Dekkers <makx@makxdekkers.com>
Subject: Process for amending definitions?

---

The current discussion about the definition of "date" raises
a basic question with regard to process (the issue being that
the current definition does not explicitly allow a date range).

This issue would seem to fall under the DCMI Namespace Policy,
and specifically under Part III ("Policy concerning classes
of changes to DCMI terms").

In the case of "date", a clarification of the definition
to specifically allow ranges would seem either

-- to fall somewhere between Type C (Semantic Changes) and
   Type B (Substantive editorial errata);

-- or (probably, by default) directly under Type C.

The condition triggering a change in "namespace URIs" (sic)
is that of "changes of definitions", as follows: "If, in the
judgement of the DCMI Directorate, such changes of meaning
are likely to have substantial impact on either machine
processing of DCMI terms or the functional semantics of the
terms, then these changes will be reflected in a change of
name or namespace for the DCMI term or terms in question."

This implies that a proposed change of wording would need
to come before the Directorate for a decision on whether the
changes would have an impact "substantial" enough to require a
change of name, though it does not spell out the form that such
a proposal would take (e.g., would it require an "environmental
impact" assessment?).

If the Directorate were to rule that the changes would have
a substantial impact, then presumably this would mean that
the proposal to change a wording would need to take the form
of a proposal for a new term.

However, if the Directorate were to rule that the changes
would _not_ have a substantial impact, it is not clear to me
from the UB Process document exactly how we would proceed.
Section 3 currently lists just four "Categories of Usage
Board Decisions" -- Recommended, Conforming, Obsolete,
and Registered.  Perhaps the "Categories of UB Decisions"
would need to look something like the following:

    3.1. Changes to existing terms
    3.2. Approval of new terms
    3.3. Conferral of status on terms or application profiles
         3.3.1. Recommended
         3.3.2. Conforming...

Tom

Title: Status of Proposals to the Usage Board
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/proposal-status/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Tom

As of August 2004, it would seem we have slipped into the practice of labelling proposals to the Usage Board as "DCMI Working Drafts". However, this status does not seem to be justified by the Usage Board Process document.

According to the current DCMI Publication Policy [2], a DCMI Working Draft is defined as follows:

> DCMI Working Drafts are documents under discussion in a DCMI Working Group. After discussion and consensus in the DCMI Working Group, the document is submitted to the DCMI Managing Director for approval through DCMI's formal approval process. Publication as a DCMI Working draft does not imply endorsement of any kind by DCMI.

Stuart points out that some proposals (e.g., from the DCMI Education WG) are every bit "documents under discussion in a DCMI Working Group" as is the Abstract Model, and that if the differentiations are more fine-grained, this does not show from the definition of a working document.

Tom replies that the scope of "proposals to UB" and the category "working drafts" do not quite match. A working draft is by definition the product of a working group, but according to UB Process, a proposal can come from other sources as well.

Moreover, some proposers take the additional step of cutting-and-pasting DCMI headers for their proposals. The danger here is that unapproved proposals could appear to be official DCMI documents.

In Shanghai, I would like to briefly discuss and clarify this issue in the context of a broader policy for the preservation and persistence of UB meeting documentation [1].

[1] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/ub-documentation/
[2] http://dublincore.org/usage/documents/2003/10/31/publications/

Title: DCMI Abstract Model
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/abstract-model/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-13
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Andy

This topic has several related threads:

1. The draft DCMI Abstract Model [1]

   Andy's draft DCMI Abstract Model (AM) was discussed in Bath. In Bath, the UB agreed that the AM may overlap with the Grammatical Principles (GP) document as long as the two documents are clearly cross-referenced and carefully maintained in alignment. There was an action on Tom and Andy to bring the GP up to date using AM as the "source" at such time as AM is approved as a DCMI Recommendation. As of September 2004, this has not yet happened, so the action will be carried forward.

   In Bath, there was a further action on Andy to forward text to Diane and Stuart for inclusion in the updated Process document. It is not clear whether this has been done or is still necessary.

   On 2004-09-30, Andy posted a new version:

> I haven't kept a detailed log of the changes that the other authors and I have made since the last public version, but here's a list of the things that I can remember us doing!
>
> - changed 'URI' to 'URI reference' at appropriate points throughout
>
> - added 'description set' to the 'description model' and associated UML class diagram (see figure 2 and section 3) to separate out the conceptual grouping of related descriptions (a 'description set') from its instantiation in a particular syntax (a 'record')
>
> - introduction of 'property/value pair' into the first two bullet points of the 'resource model', the associated UML class diagram and the terminology section - to separate abstract notion of a property from the specific usage of a property to describe a particular resource
>
> - modified the definition of 'sub-property' in the resource model
>
> - added of a note about needing to indicate how 'resource URIs' and 'value URIs' are handled in encoding syntax specifications (section 7)
>
> - explicit indication that 'resource URIs' and 'value URIs' are not supported by the current XML encoding guidelines (appendix C)
>
> - explicit inidication that 'resource URIs' are not supported by the XHTML encoding syntax (appendix D)
>
> I am hopeful that this version is ready (or very

> close to ready) to being moved forward as a Proposed Recommendation. Please let me know if you have strong views that this should not happen.

Andy will say whether he feels there are any technical or policy issues related to the Abstract Model that need discussion by the Usage Board in Shanghai [2].

[1] http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/
[2] http://www.ukoln.ac.uk/metadata/dcmi/dc-usage/am-issues/

2. "Guidelines for assigning identifiers to metadata terms"

In Bath, there was an action on Andy to formulate guidelines on how people can declare their own URIs -- for example by using InfoURI -- as a basis of discussion.

On 2 September, Andy posted a draft "Guidelines for assigning identifiers to metadata terms" [2], which has subsequently been discussed on DC-ARCHITECTURE [3].

[2] http://www.ukoln.ac.uk/metadata/dcmi/term-identifier-guidelines/
[3] http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-architecture&T=0&F=&S=&P=62

3. Clarifying regarding non-DCMI-maintained terms (URIs)

In Bath, there was an action on Pete and Roland to draft a a clear explanation of why an XML element is not an RDF property (statement of problem) and a proposal for Usage Board policy concerning XML elements. This policy was supposed to help determine whether we re-consider a proposal for a DC refinement or make a decision about reusing the MODS element.

On the basis of the explanation from Pete and Roland, Rebecca was to find out whether a simple human-readable statement could be devised by the MODS maintainers to clarify the appropriateness of such usage.

4. Definitions of DC-15 in light of the Abstract Model

A 'value entity' may have a 'value string' and a 'value URI'.

In September 2003, Andy noticed:

> However, digging too deeply into this uncovers some horrible holes in the definitions of the 15 elements. For example, the value of dc:identifier is not 'the resource' (a physical or conceptual entity) but 'a reference to the resource' (a conceptual entity). (I.e. in RDF, the value of dc:identifier should never be a resource). The same is true of dc:relation ('A reference to a related resource') and dc:source. This seems to run counter to other definitions in DCMES - e.g. dc:creator, which is defined to be 'An entity...' (rather than 'A reference to an entitiy...'). This is probably a little unfortunate.
>
> Similarly, the definition of dc:rights is at odds with the other definitions because it effectively defines the value to be either a 'rights statement' or a 'link to a rights statement'. None of the other definitions allow for the explicit possibility of linking to the value.
>
> In the abstract model, it would be nice to skirt over some of these issues and assume that the value of dc:rights is a 'rights statement' (a conceptual entitiy) and the values of dc:relation, dc:source

and dc:identifier are 'resources' (physical or conceptual entities). Both cases, the 'references to the resources' and the 'link to a rights statement', should be handled by the model (using 'value URI' and 'related metadata' respectively), not hard-coded into the definitions.

5. Modelling DC Values as Resources in RDF

In September, Andy posted a discussion paper [4] shining a bright light on the long-recognized but hitherto-glossed-over differences in how DCMI's specifications for encoding DC metadata in RDF treat values -- whether as resources or as strings -- and how DCMI might proceed to address this important issue.

[4] http://www.ukoln.ac.uk/metadata/dcmi/rdf-values/

6. Vocabulary Encoding Schemes and Syntax Encoding Schemes

I'd like to see this issue expanded slightly to cover the question I asked back here

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0405&L=dc-architecture&T=0&F=&S=&P=567

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0406&L=dc-architecture&T=0&F=&S=&P=57

about whether the terms within the DCMI Type Vocabulary are also encoding schemes. I think clarifying this point may be helpful in explaining some of the syntax issues.

Pete has raised the question on dc-architecture of whether the DCMI Type Vocabulary Terms are also encoding schemes:

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0405&L=dc-architecture&T=0&F=&S=&P=567
http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0406&L=dc-architecture&T=0&F=&S=&P=57

| | |
|---|---|
| **Title:** | **DCMI Abstract Model** |
| **Creator:** | Andy Powell<br>UKOLN, University of Bath, UK<br>Mikael Nilsson<br>KMR Group, CID, NADA, KTH (Royal Institute of Technology), Sweden<br>Ambjörn Naeve<br>KMR Group, CID, NADA, KTH (Royal Institute of Technology), Sweden<br>Pete Johnston<br>UKOLN, University of Bath, UK |
| **Date Issued:** | 2004-09-28 |
| **Identifier:** | http://dublincore.org/documents/2004/09/28/abstract-model/ |
| **Replaces:** | http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/2004-09-18/ |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://dublincore.org/documents/abstract-model/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document describes an abstract model for DCMI metadata descriptions. |

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## 1. Introduction

This document specifies an abstract model for DCMI metadata descriptions [DCMI]. The primary purpose of this document is to provide a reference model against which particular DC encoding guidelines can be compared. To function well, a reference model needs to be independent of any particular encoding syntax. Such a reference model allows us to gain a better understanding of the kinds of descriptions that we are trying to encode and facilitates the development of better mappings and translations between different syntaxes.

## 2. DCMI abstract models

The abstract model of the *resources* being described by DCMI metadata descriptions is as follows:

- Each *resource* has zero or more *property/value pairs*.
- Each *property/value pair* is made up of one *property* and one *value*.
- Each *value* is a *resource* (the physical or conceptual entity that is associated with a *property* when it is used to describe a *resource*).
- Each *resource* may be a member of one or more *classes*.
- Each *property* and *class* have some declared *semantics*.
- Each *class* may be related to one or more other *classes* by a refines (sub-class) relationship (where the two *classes* share some *semantics* such that all *resources* that are members of the *sub-class* are also members of the related *class*).
- Each *property* may be related to exactly one other *property* by a refines (sub-property) relationship (where the two *properties* share some *semantics* such that whenever a *resource* is related to a *value* by the *sub-property*, it follows that the *resource* is also related to that same *value* by the *property*).

The abstract model of DCMI metadata descriptions is as follows:

- A *description* is made up of one or more *statements* (about one, and only one, *resource*) and zero or one *resource URI* (a URI reference that identifies the *resource* being described).
- Each *statement* instantiates a *property/value pair* and is made up of a *property URI* (a URI reference that identifies a *property*), zero or one *value URI* (a URI reference that identifies a *value* of the *property*), zero or one *encoding scheme URI* (a URI reference that identifies the *class* of the *value*) and zero or more *value representations* of the *value*.

- Each *property URI* may be repeated in multiple *statements*.
- The *value representation* may take the form of a *value string*, a *rich value* or a *related description*.
- Each *value string* is a simple, human-readable string that is a representation of the *resource* that is the *value* of the *property*.
- Each *value string* may have an associated *encoding scheme URI* that identifies a *syntax encoding scheme*.
- Each *value string* may have an associated *value string language* that is an ISO language tag (e.g. en-GB).
- Each *rich value* is some marked-up text, an image, a video, some audio, etc. or some combination thereof that is a representation of the *resource* that is the *value* of the *property*.
- Each *related description* is a *description* of (i.e. some metadata about) the *resource* that is the *value* of the *property*.

The italicised terms used above are defined in the terminology section below. A number of things about the model are worth noting:

- A *related description* describes a related *resource* and is therefore not part of the *description* - for example, a *related description* may provide metadata about the person that is the creator of the described *resource*.
- *Syntax encoding schemes* are also known as 'datatypes' in some contexts.
- The abstract model of the *resources* being described by DCMI metadata descriptions indicates that each *resource* may be a member of one or more *classes*. Note that where the *resource* is the *value* of a *property*, the *class* is referred to as a *vocabulary encoding scheme*.
- In DCMI metadata *descriptions*, the *class* of the *resource* being described is normally indicated by the *value* of the DC Type *property*.

The DCMI abstract models for resources and descriptions are represented as UML class diagrams [UML] in figures 1 and 2.

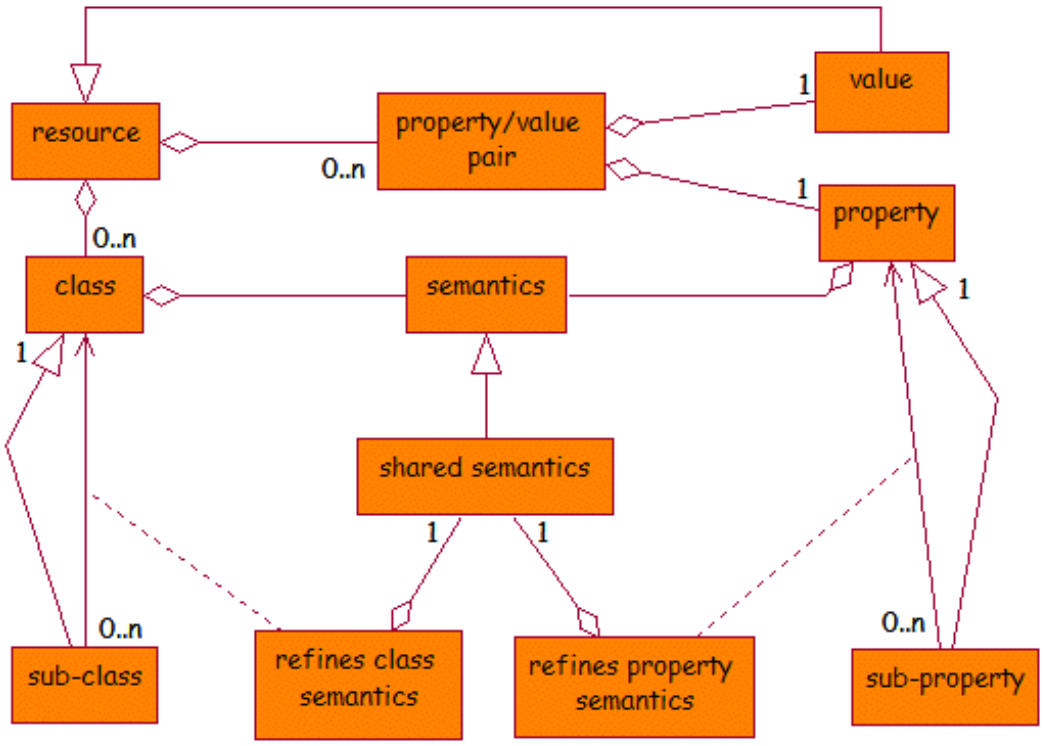


**Figure 1 - the DCMI resource model**

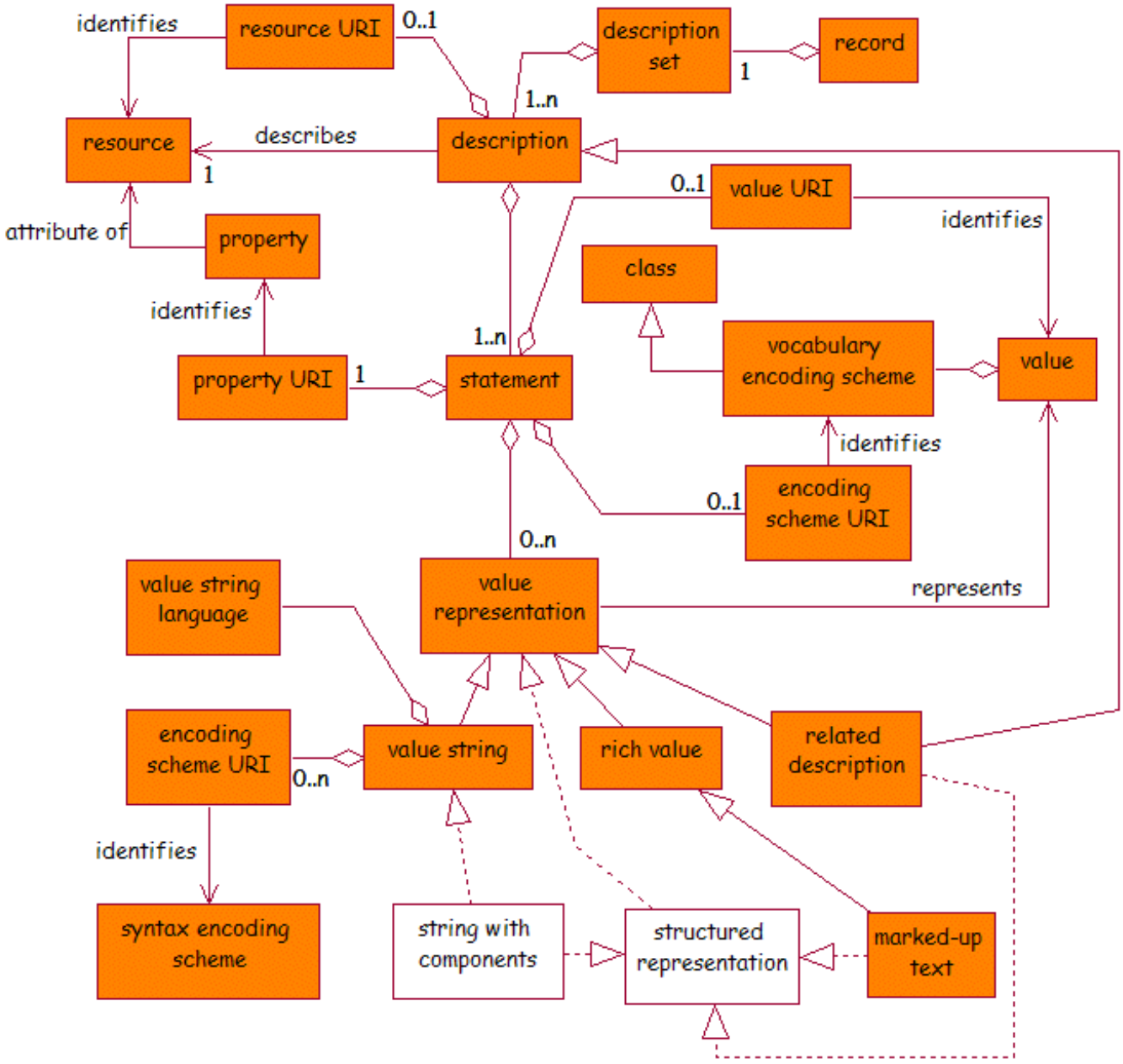


**Figure 2 - the DCMI description model**

Readers that are not familiar with UML class diagrams should note that lines ending in a block-arrow should be read as 'is' or 'is a' (for example, 'a *vocabulary encoding scheme* is a *class*') and that lines starting with a block-diamond should be read as 'contains a' or 'has a' (for example, 'a *statement* contains a *property URI*'). Other relationships are labelled appropriately. The classes represented by the clear boxes are not mentioned explicitly in the textual description of the abstract model above but are discussed in Appendix A. Note that the UML modelling used here shows the abstract model but is not intended to form a suitable basis for the development of DCMI software applications.

### 3. Descriptions, description sets and records

The abstract model described above indicates that each DCMI metadata *description* describes one, and only one, resource. This is commonly referred to as the 1:1 principle.

However, real-world metadata applications tend to be based on loosely grouped sets of *descriptions* (where the described *resources* are typically related in some way), known here as *description sets*. For example, a *description set* might comprise *descriptions* of both a painting and the artist. Furthermore, it is often the case that a *description set* will also contain a *description* about the *description set* itself (sometimes refered to as 'admin metadata' or 'meta-metadata').

*Description sets* are instantiated, for the purposes of exchange between software applications, in the form of metadata *records*, according to one of the DCMI encoding guidelines (XHTML meta tags, XML, RDF/XML, etc.) [DCMI-ENCODINGS].

This document defines a *description set* and a DCMI metadata *record* as follows:

- A *description set* is a set of one or more *descriptions* about one or more *resources*.
- A DCMI metadata *record* is a *description set* that is instantiated according to one of the DCMI encoding guidelines (XHTML meta tags, XML, RDF/XML, etc.)

### 4. Values

A DCMI metadata *value* is the physical or conceptual entity that is associated with a *property* when it is used to describe a *resource*. For example, the *value* of the DC Creator *property* is a person, organisation or service - a physical entitiy. The *value* of the DC Date *property* is a point in time - a conceptual entity. The *value* of the DC Coverage *property* may be a geographic region or country - a physical entity. The *value* of the DC Subject *property* may be a concept - a conceptual entity - or a physical object or person - a physical entity. Each of these entities is a *resource*.

The *value* may be identified using a *value URI*; the *value* may be represented by one or more *value strings* and/or *rich values*; the *value* may have some *related descriptions* - but the *value* is a *resource*.

### 5. Simple and qualified DC

A Dublin Core Application Profile [DCAP] is a declaration specifying, at a minimum, which *properties* are used within a particular metadata application. Optionally, an application profile may describe how those *properties* have been constrained or adapted for particular purposes.

The commonly used notions of simple and qualified Dublin Core are application profiles for two types of *description set* based on DCMI terms. These notions can be described using the abstract model as follows:

- The phrase "simple DC" is used to indicate a *description set* that:
  - conforms to the abstract model,
  - comprises only a single *description*,
  - uses only the 15 *properties* in the Dublin Core Metadata Element Set [DCMES],
  - makes no use of *value URIs*, *encoding schemes*, *rich values* or *related descriptions*.
- The phrase "qualified DC" is used to indicate a *description set* that:
  - conforms to the DCMI abstract model,
  - contains at least one *property* taken from the DCMI Metadata Terms recommendation [DCTERMS]).

### 6. Dumb-down

The process of translating a qualified DC metadata record into a simple DC metadata record is normally referred to as 'dumbing-down'. The process of dumbing-down can be separated into two parts: property dumb-down and value dumb-down. Furthermore, each of these processes can be be approached in one of two ways. Informed dumb-down takes place where the software performing the dumb-down algorithm has knowledge built into it about the *property* relationships and *values* being used within a specific DCMI metadata application. Uninformed dumb-down takes place where the software performing the dumb-down algorithm has no prior knowledge about the *properties* and *values* being used.

Based on this analysis, it is possible to outline a 'dumb-down algorithm' matrix, shown below:

| | **Element dumb-down** | **Value dumb-down** |
|---|---|---|
| **Uninformed** | Discard any *property* that isn't in the Dublin Core Metadata Element Set [DCMES]. | Use *value URI* (if present) or *value string* as new *value string*. Discard any *related descriptions* and *rich values*. Discard any *encoding scheme URIs*. |
| **Informed** | Recursively resolve sub-property relationships until one of the 15 properties in the Dublin Core Metadata Element Set [DCMES] is reached, otherwise ignore. | Use knowledge of any *rich values*, *related descriptions* or the *value string* to create a new *value string*. |

Note that software should make use of the DCMI term declarations represented in RDF schema language [DC-RDFS] and the DC XML namespaces [DC-NAMESPACES] to automate the resolution of sub-property relationships.

### 7. Encoding guidelines

Particular encoding guidelines (HTML meta tags, XML, RDF/XML, etc.) [DCMI-ENCODINGS] do not need to encode all aspects of the abstract model described above. However, DCMI recommendations that provide encoding guidelines should refer to the DCMI abstract model and indicate which parts of the model are encoded and which are not. In particular, encoding guidelines should indicate the mechanism by which *resource URIs* and *value URIs* are encoded. Note that the abstract model does not indicate that the combination of a DCTERMS URI *syntax encoding scheme* with a *value string* implies a *value URI* or *resource URI*. Encoding guidelines should provide an explicit mechanism for encoding these features of the model. Encoding guidelines should also indicate whether any *rich values* or *related descriptions* associated with a *statement* are embedded within the *record* or are encoded in a separate *record* and linked to it using a URI.

Appendices B, C and D below provide a summary comparison between the abstract model and the RDF/XML, XML and XHTML encoding guidelines.

### 8. Terminology

This document uses the following terms:

*resource*
: A *resource* is anything that has identity. Familiar examples include an electronic document, an image, a service (e.g., "today's weather report for Los Angeles"), and a collection of other *resources*. Not all *resources* are network "retrievable"; e.g., human beings, corporations, concepts and bound books in a library can also be considered *resources*.

*resource URI*
: A *resource URI* is a URI reference that identifies a single *resource*.

*property*
: A *property* is a specific aspect, characteristic, attribute, or relation used to describe *resources*.

*property URI*
: A *property URI* is a URI reference that identifies a single *property*.

*element*
: Within DCMI, *element* is typically used as a synonym for *property*. However, it should be noted that the word element is also commonly used to refer to a structural markup component within an XML document.

*element refinement*
: An *element refinement* is a *property* of a *resource* that shares the meaning of a particular DCMI *property* but with narrower semantics. Since *element*

*refinements* are *properties*, they can be used in metadata *descriptions* independently of the *properties* they refine. In DCMI practice, an *element refinement* refines just one parent DCMI *property*.

*description*
: A *description* is made up of one or more *statements* about one, and only one, *resource*.

*statement*
: A *statement* is made up of a *property URI* (a URI reference that identifies a *property*), zero or one *value URI* (a URI reference that identifies a *value* of the *property*), zero or one *encoding scheme URI* (a URI reference that identifies the *class* of the *value*) and zero or more *value representations* of the *value*.

*description set*
: A *description set* is a set of one or more *descriptions* about one or more *resources*.

*record*
: A *record* is a *description set* that is instantiated according to one of the DCMI encoding guidelines (XHTML meta tags, XML, RDF/XML, etc.)

*value*
: A *value* is the physical or conceptual entity that is associated with a *property* when it is used to describe a *resource*.

*value URI*
: A *value URI* is a URI reference that identifies the *value* of a *property*.

*property/value pair*
: A *property/value pair* is the combination of a *property* and a *value*, used to describe a *resource*.

*value representation*
: A *value representation* is a surrogate for (i.e. a representation of) the *value*.

*value string*
: A *value string* is a simple string that represents the *value* of a *property*. In general, a *value string* should not contain any *marked-up text*.

*value string language*
: The *value string language* indicates the language of the *value string*.

*vocabulary encoding scheme*
: A *vocabulary encoding scheme* is a *class* that indicates that the *value* of a *property* is taken from a controlled vocabulary (or concept-space), such as the the Library of Congress Subject Headings.

*syntax encoding scheme*
: A *syntax encoding scheme* indicates that the *value string* is formatted in accordance with a formal notation, such as "2000-01-01" as the standard expression of a date.

*encoding scheme*
: *Encoding scheme* is the generic term for *vocabulary encoding scheme* and *syntax encoding scheme*.

*encoding scheme URI*
: An *encoding scheme URI* is a URI reference that identifies an *encoding scheme*. For all DCMI recommended *encoding schemes*, the URI reference is constructed by concatenating the name of the *encoding scheme* with the DCTerms namespace URI.

*marked-up text*
: A string that contains HTML, XML or other markup (for example TeX) and that is associated with the *value* of a *property*.

*rich value*
: Some *marked-up text*, an image, a video, some audio, etc. (or some combination thereof) that is associated with the *value* of a *property*.

*related description*
: A *related description* is a *description* of a *resource* that is related to the *resource* being described.

*qualifier*
: *Qualifier* was the generic term used for the terms that are now usually referred to specifically as *element refinements* or *encoding schemes*.

*structured value*
: *Structured value* is the generic term for the following:
  - A *value string* that contains machine-parsable component parts (and which has an associated *syntax encoding scheme* that indicates how the component parts are encoded within the string).
  - Some *marked-up text*.
  - A *related description*

## References


DCMI
: Dublin Core Metadata Initiative
<http://dublincore.org/>

UML
: The Unified Modeling Language User Guide
Grady Booch, James Rumbaugh and Ivar Jacobson, Addison-Wesley, 1998

DCTERMS
: DCMI Metadata Terms
<http://dublincore.org/documents/dcmi-terms/>

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

DCMI-ENCODINGS
: DCMI Encoding Guidelines
<http://dublincore.org/resources/expressions/>

DCAP
: DCMI Usage Board Review of Application Profiles
<http://dublincore.org/usage/documents/profiles/>

DC-RDFS
: DCMI term declarations represented in RDF schema language
<http://dublincore.org/schemas/rdfs/>

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


## Acknowledgements

Thanks to Tom Baker, the members of the DC Usage Board and the members of the DC Architecture Working Group for their comments on previous versions of this document.

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## Appendix A - A note about structured values

This appendix discusses 'structured values', as they are used in DC metadata applications at the time of writing.

Many existing applications of DC metadata have attempted to encode relatively complex descriptions (i.e. descriptions that contain more than simply a property and its string value). These attempts have been loosely referred to as 'structured values'. It is possible to identify a number of different kinds of structured values. Four are enumerated below. The first two of these are recommended by the DCMI, in the sense that there are a number of existing encoding schemes that define values that conform to these definitions of structured values. The latter two are not currently recommended, but it is likely that they are in fairly common usage across metadata applications worldwide.

#### Labelled strings

These are strings that contain explicitly labelled components. Examples of this kind of structured value include:

DCSV
: and the various DCMI syntax encoding schemes built on it - Period, Point and Box. An example of the use of DCSV in Period is:

```
<meta name="dcterms:temporal"
      scheme="dcterms:Period"
      content="start=Cambrian period; scheme=Geological timescale; name=Phanerozoic Eon;" />
```

vCard
: for example:

```
<meta name="dc:creator"
      content="BEGIN:VCARD\nORG:University of Oxford\nEND:VCARD\n" />
```

Note that vCard is not currently a DCMI recommended encoding scheme.

#### Unlabelled strings

These are strings that contain implicit components within the string, i.e. the components are determined based solely on their position within the string. Examples of this kind of structured value include:

W3CDTF
: the date-time format used within most DC metadata. For example:

```
<meta name="dc:date"
      scheme="dcterms:W3CDTF"
      content="2003-06-10" />
```

#### Marked-up text

These are strings containing 'presentational' or other markup, for example adding paragraph breaks, superscripts or chemical/mathematical markup to a dc:description. It is possible to characterise various kinds of markup as follows:

- Markup based on a version of HTML.
- Markup based on other XML-based languages such as CML and MathML.
- Non-XML markup languages such as TeX.

#### Related resource descriptions

These are metadata descriptions that describe a second resource (i.e. not the resource being described by the DC description). For example, a related description associated with the value of dc:creator could contain a complete description of the resource author (including birthday, eye-colour and favourite beverage if desired!).

In the past, 'related resource descriptions' have tended to be encoded using XML, vCard (see above) or by inventing multiple 'refinements' of DCMES properties (for example DC.Creator.Address). The RDF/XML encoding of DC (see below) provides us with a more thorough modelling of related metadata records through the use of multiple linked nodes in an RDF graph.

In DC metadata records, the following properties (and their element refinements) are used to provide the name or identifier of a second resource that is related to the resource being described:

- dc:creator
- dc:contributor
- dc:publisher
- dc:relation
- dc:source

In the case of the first three, this is typically done by providing the name (or in some cases the name and a small amount of additional information in order to better identify the person or organisation) of the related resource as the value string.

In the case of the last two, this is typically done by providing the URI reference (or some other identifier) of the related resource as the value URI. However, where no identifier is available, the name of the related resource can be provided instead (or as well) using the value string.

It should be noted that the value strings of these properties (and their element refinements) are not intended to be used to provide full descriptions of the related resource.

#### Summary

The categories outlined above are not watertight and there are certainly overlaps between them. For example, labelled strings can be viewed as a type of non-XML markup language. In addition, there will be cases where marked-up text (e.g. MathML) can be viewed as a related resource description.

Nevertheless, the purpose of the categorisation used here is to try and analyse existing usage of complex metadata structures within current DC metadata applications. In the context of the abstract model proposed here, all the types of structured values outlined above form part of the DCMI abstract model:

- A labelled string should be treated as a *related description* (though it should be noted that DCSV and the various DCMI syntax encoding schemes

built on it - Period, Point and Box - are currently encoded as *value strings* with an appropriate *syntax encoding scheme*).

- An unlabelled string should be treated as a *value string* with an appropriate *syntax encoding scheme*.
- Marked-up text should be treated as a *rich value*.
- A related resource description should be treated as a *related description*.

---

## Appendix B - The abstract model and RDF

This appendix discusses the relationship between the DCMI abstract model and the Resource Description Framework (RDF).

RDF currently provides DCMI with the richest encoding environment of the available encoding syntaxes. It is therefore worth taking a brief look at how the abstract model described here compares with the RDF model.

Note that the intention here is not to provide a full and detailed description of how to encode DC metadata records in RDF. Instead, three simple examples of the use of DC in RDF are considered.

#### Example 1: dc:creator

Figure 3 shows a simple RDF graph (and the RDF/XML document that represents it). The graph shows a resource with a single property (dc:creator). The *value* of the property is a second (blank) node, representing the creator of the resource. This second blank node has several properties, used to describe the creator, and an rdfs:label property that is used to provide the *value string* for the dc:creator property.

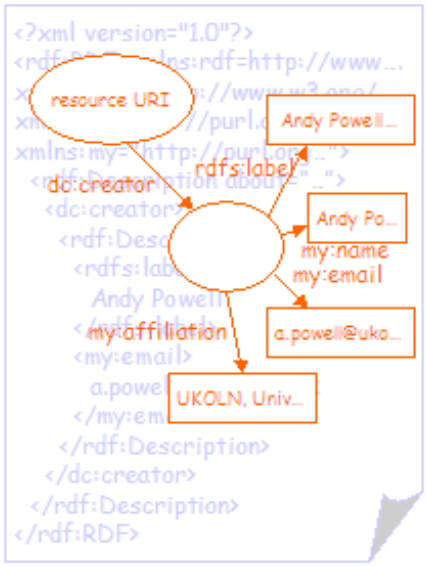


**Figure 3**

Figure 4 shows the same information separated into two graphs. In this case the *related description* that describes the creator has been more clearly separated from the description of the resource by moving it into a separate RDF/XML document. In order to do this, the node representing the *value* has been assigned a *value URI*, allowing the two nodes in the two RDF/XML documents to be treated as representing the same thing.

The *related description* in the second RDF/XML document is linked to the first using the rdfs:seeAlso property and the URI of the RDF/XML document. Note that it is not strictly necessary to separate the two graphs in this way; it is perfectly valid to represent the second graph as a sub-graph of the first, as shown in figure 3. However, for the purposes of this document, the two graphs have been separated in order to more clearly differentiate the *description* from the *related description*. In some cases it will be good practice to facilitate this separation anyway. For example, in order to serve the second graph from a directory service of some kind.

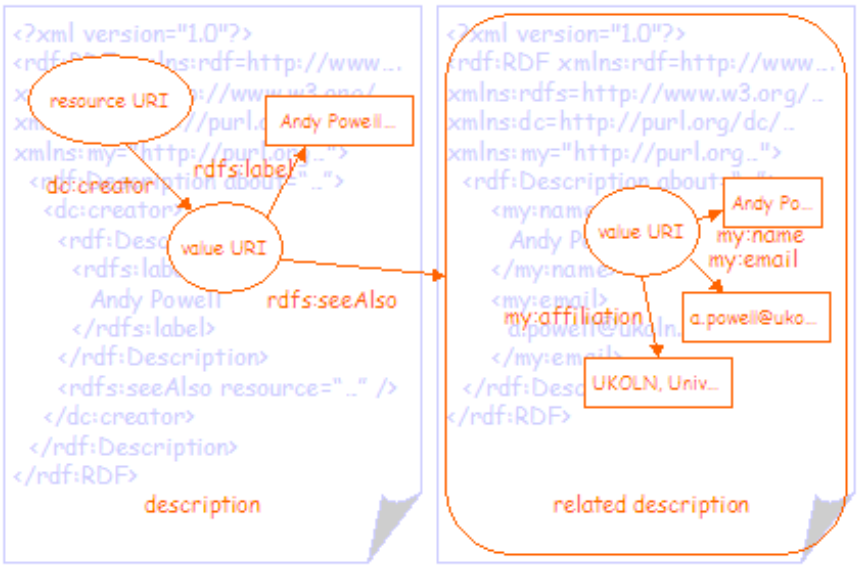


**Figure 4**

#### Example 2: dc:subject

Figure 5 shows a second simple RDF graph (and the RDF/XML document that represents it). The graph shows a resource with a single property (dc:subject). The *value* of the property is a second (blank) node, representing the subject of the resource. This second blank node has an rdfs:label property that is used to provide the *value string* for the dc:subject property, an rdf:value property that is used to provide the classification scheme notation and an rdf:type property to provide the encoding scheme URI.

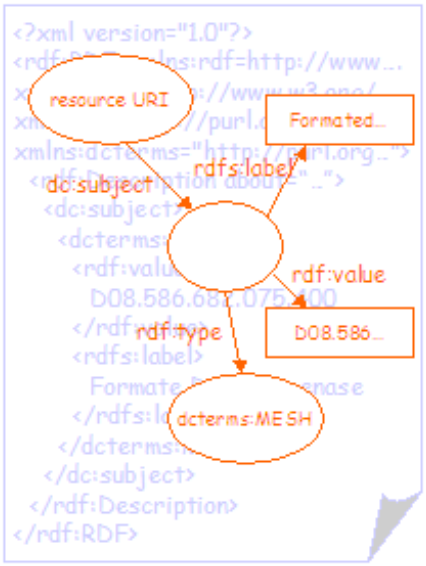


**Figure 5**

Figure 6 shows the same information separated into two graphs. In this case the *related description* that describes the subject has been more clearly separated from the description of the resource by moving it into a separate RDF/XML document. In order to do this, the node representing the *value* has been assigned a *value URI*, allowing the two nodes in the two RDF/XML documents to be treated as representing the same thing.

The *related description* in the second RDF/XML document is linked to the first using the rdfs:seeAlso property and the URI of the RDF/XML document. Note that it is not strictly necessary to separate the two graphs in this way; it is perfectly valid to represent the second graph as a sub-graph of the first, as shown in figure 5. However, for the purposes of this document, the two graphs have been separated in order to more clearly differentiate the *description* from the *related description*. In some cases it will be good practice to facilitate this separation anyway. For example, in order to serve the second graph from a terminology service of some kind.

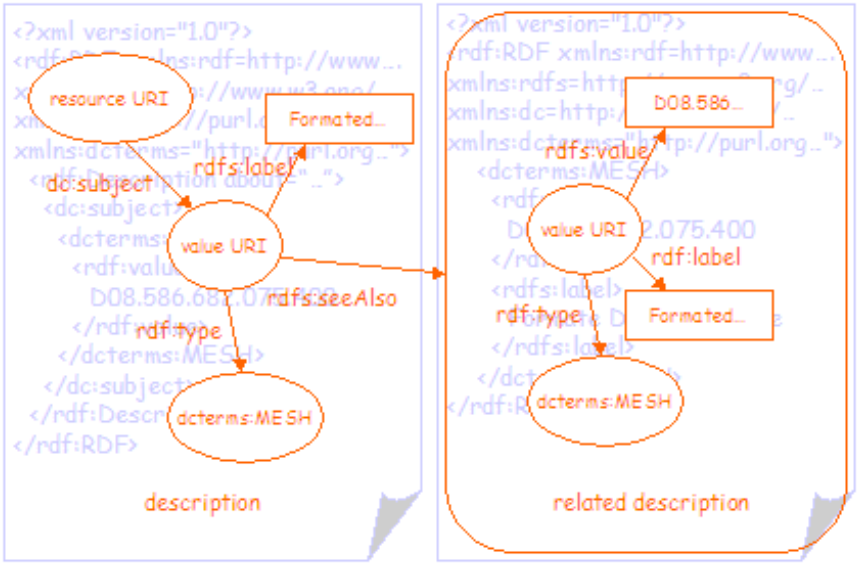


**Figure 6**

**Example 3: dc:description**

Figure 7 shows a third simple RDF graph (and the RDF/XML document that represents it). The graph shows a resource with a single property (dc:description). The *value* of the property is a second (blank) node with an rdfs:label property that is used to provide the *value string* for the dc:description property. The second node also has an rdfs:seeAlso property that links to a *rich value* - in this case some HTML marked-up text that provides a richer representation of the description.

Note that it is possible to embed the marked-up text within a single RDF graph (using rdf: parseType="Literal"). However, this is not shown here.

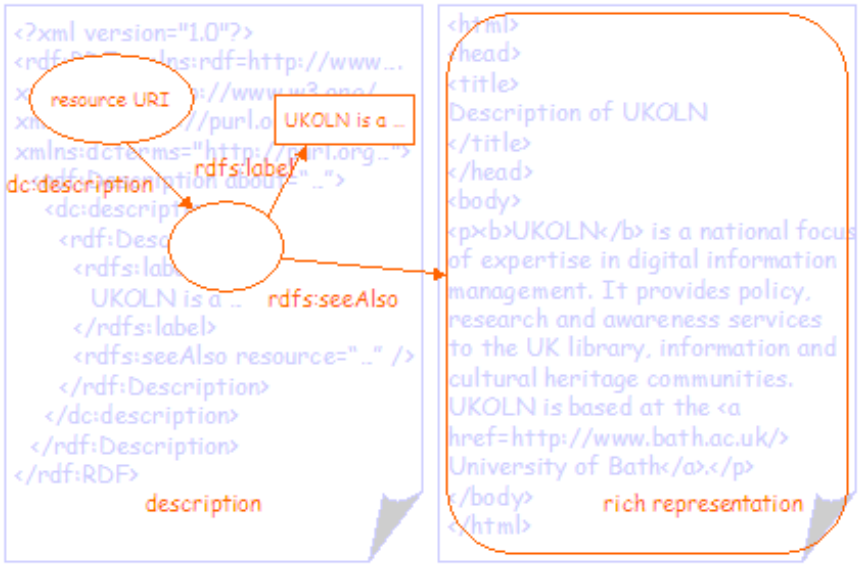


**Figure 7**

#### Summary

By re-visiting the second figure from example 2 (figure 6) it is possible to layer the terminology used in the abstract models above over the RDF graph.

All aspects of the DCMI abstract model are supported by the RDF encoding guidelines.

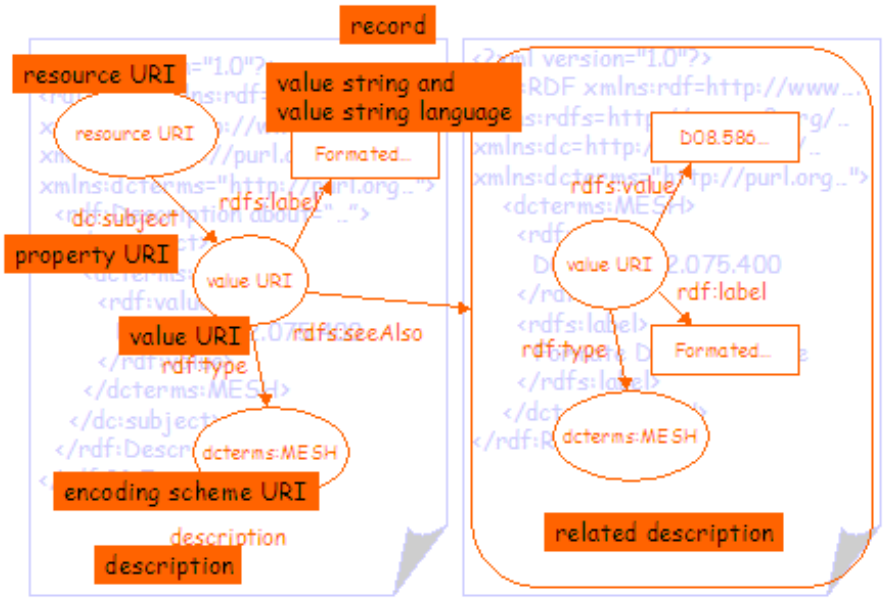


**Figure 8**

## Appendix C - The abstract model and XML

This appendix compares the DCMI abstract model with the Guidelines for implementing Dublin Core in XML DCMI recommendation.

#### Simple DC

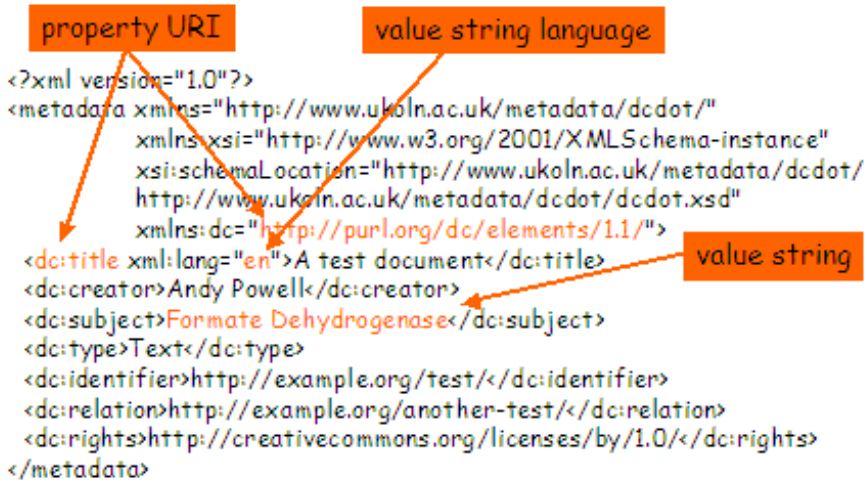


**Figure 9**

Figure 9 shows an example simple DC description encoded according to the XML guidelines above. The example shows how the encoding supports the *property URI*, *value string* and *value string language* aspects of the DCMI abstract model. It should be noted that all the *values* that are encoded in this syntax are represented by *value strings*, even those that look, to the human reader, as though they are URIs.

#### Qualified DC


**Figure 10**

Figure 10 shows an example qualified DC description encoded according to the XML guidelines above. This example shows how the encoding supports the *property URI*, *value string*, *value string language*, *encoding scheme URI* and *resource class* aspects of the DCMI abstract model. Note also that, although the *resource class* is indicated, the *class URI* is not encoded anywhere in this description.

#### Summary

The following aspects of the DCMI abstract model are supported by the Guidelines for implementing Dublin Core in XML recommendation:

- *properties*
- *property URIs*
- *value strings*
- *value string languages*
- *encoding schemes*
- *encoding scheme URIs*
- *resource classes*

The following aspects of the DCMI abstract model are not supported:

- *resource URIs*
- *value URIs*
- *rich values*
- *related descriptions*
- *property*/sub-property relationships
- *resource class URIs*

The following constraints apply:

- Each *property* may have one *value string* (but not more than one).
- *Vocabulary encoding schemes* and *syntax encoding schemes* are handled in exactly the same way.

Note that, at the time of writing, neither *resource URIs* nor *value URIs* can be explicitly encoded in the XML encoding syntax. Although it may be the case that some software applications have chosen to interpret the use of a DCTERMS URI *syntax encoding scheme* as an indication that the URI in the *value string* is a *resource URI* or *value URI*, this is **not** guaranteed to be a correct interpretation of the metadata *record* in all cases.

## Appendix D - The abstract model and XHTML

This appendix compares the DCMI abstract model with the Expressing Dublin Core in HTML/XHTML meta and link elements DCMI recommendation.

#### Simple DC


**Figure 11**

Figure 11 shows an example simple DC description encoded according to the XHTML guidelines above. This example shows how the encoding supports the *property URI*, *value string*, *value string language* and *value URI* aspects of the DCMI abstract model. Again, it should be noted that the value of the DC Identifier *property* represented in this encoding syntax is denoted by a *value string*, even though it looks, to the human reader, as though it is a URI.

#### Qualified DC


**Figure 12**

Figure 12 shows an example qualified DC description encoded according to the XHTML guidelines above. This example shows how the encoding supports the *property URI*, *value string*, *value string language*, *value URI*, *encoding scheme URI* and *resource class* aspects of the DCMI abstract model. Note that although the *resource class* is indicated, the *class URI* is not encoded anywhere in this description.

#### Summary

The following aspects of the DCMI abstract model are supported by the Expressing Dublin Core in HTML/XHTML meta and link elements DCMI recommendation:

- *properties*
- *property URIs*
- *value strings*
- *value string languages*
- *value URIs*
- *encoding schemes*
- *encoding scheme URIs*
- *resource classes*

The following aspects of the DCMI abstract model are not supported:

- *resource URIs*

- *rich values*
- *related descriptions*
- *property*/sub-property relationships
- *resource class URIs*

The following constraints apply:

- Each *property* may have one *value string* (but not more than one) or a *value URI* but not both.
- *Vocabulary encoding schemes* and *syntax encoding schemes* are handled in exactly the same way.

Note that, at the time of writing, *resource URIs* cannot be explicitly encoded in the XHTML encoding syntax. However, the *resource URI* may be implicit from the URI of the *resource* into which the *record* is embedded.

---


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

| | |
|---|---|
| **Title:** | **Guidelines for assigning identifiers to metadata terms** |
| **Creator:** | Andy Powell<br>UKOLN, University of Bath, UK |
| **Date Issued:** | 2004-08-01 |
| **Identifier:** | http://dublincore.org/documents/2004/08/01/term-identifier-guidelines/ |
| **Replaces:** | |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://dublincore.org/documents/term-identifier-guidelines/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document provides some simple guidelines for assigning identifiers to non-DCMI metadata terms (elements, element refinements, encoding schemes and vocabulary terms). |

## 1. Introduction

The Dublin Core Abstract Model [DC-AM] requires that all terms (elements, element refinements, encoding schemes and controlled vocabulary terms) used in metadata application profiles that are compliant with the model must be assigned a URI reference that identifies the term. A URI reference is a Uniform Resource Identifier with an optional fragment identifier (sometimes known as a URIref) [RFC2396]. An XML namespace [XML-NAMES] is a collection of names, identified by a URI reference that are used in XML documents as element types and attribute names. By convention, all DCMI recommended encodings [DCMI-ENCODINGS] use a concatenation of an XML namespace URI reference and the term name to provide a mechanism for encoding the term URI reference. The use of XML namespaces and URI references to uniquely identify metadata terms allows those terms to be unambiguously used across applications, promoting the possibility of shared semantics. As indicated in the DCMI Namespace Policy [DCMI-NAMESPACE], DCMI has adopted this mechanism for the identification of all DCMI terms.

This document provides some simple guidelines for assigning URI references to metadata terms in non-DCMI namespaces. This includes non-DCMI elements, element refinements, encoding schemes and controlled vocabulary terms.

Although these guidelines are mainly intended for metadata application profiles that conform with the Dublin Core Abstract Model, it is hoped that they are generic enough that they may be useful in the context of other metadata applications as well.

## 2. Guidelines

All metadata terms must be assigned a URI reference. The use of fragment identifiers in the URI references used to identify metadata terms is optional and is left to the discretion of the implementor.
*Should something be inserted here about current W3C TAG thinking that conceptual resources should be identified using URI references that have a fragment identifier?*

For the purposes of encoding, the term URI reference may be partitioned into an XML namespace URI reference

and the term name. Note that, for convenience, it is commonly the case that XML namespace URI references end with either a '#' (hash) or '/' (slash) character.

Groups of related terms (for example, all the terms within a controlled vocabulary) should be assigned URI references within the same XML namespace.

All XML namespace and term URI references should resolve to human and/or machine-readable descriptions of the namespace or term.

Any valid URI reference [RFC2396] may be used to identify a metadata term. However, the use of a registered URI scheme is recommended [URI-SCHEMES].

All XML namespace and term URI references should be assigned with the intention of them being unique and persistent. This means that the URI reference must not be used to identify anything else and that it should be expected to last as long as the Internet.
*Is this a reasonable definition of 'persistent'?*

## 3. Strategies for assigning URI references

Four simple strategies for assigning URI references to metadata terms are described below.

### 3.1 Using service or project URLs

Where a term is created within the context of a particular project, service or other initiative, the use of a project or service-specific URL may be appropriate. This is probably the simplest strategy in terms of ease of assignment and resolution. However, it is also the most prone to lack of persistence.

Example 1: `http://myservice.org/terms/price`
: An existing service is delivered using the `myservice.org` DNS domain name. The service creates a new property called `price` for use in its metadata application profile. The service defines an XML namespace URI reference within its existing URL space (`http://example.org/terms/`) and therefore assigns the term the following URI reference: `http://example.org/terms/price`.

Example 2: `http://myproject.org/metadata/vocabs/color#Red`
: A project Web-site is delivered using the `myproject.org` DNS domain name. The project team build up a new controlled vocabulary of colors for use within their metadata application profile. They define an XML namespace URI reference within their existing URL space (`http://myproject.org/metadata/vocabs/color#`). For the vocabulary term Red, the term URI reference is therefore `http://myproject.org/metadata/vocabs/color#Red`

Notice that example 1 defines a metadata property while example 2 defines a term within a controlled vocabulary. Remember that in example 2 it will probably also be necessary to define an encoding scheme name for the vocabulary itself, for example `http://myproject.org/metadata/terms/Color`.

### 3.2 Using PURLs

A similar approach, but one that is likely to offer more persistent URI references, is to use PURLs [PURL]. A PURL is a Persistent Uniform Resource Locator. Functionally, a PURL is a URL. However, instead of pointing directly to the location of an Internet resource, a PURL points to an intermediate resolution service. This provides a level of resilience aginst changes in project or service URLs. The use of PURLs to identify metadata terms has already been adopted by a number of metadata-related initiatives such as DCMI itself and RDF Site Summary (RSS) 1.0 [RSS10].

Example 1: `http://purl.org/rss/1.0/link`
: RDF Site Summary is a lightweight multipurpose extensible metadata description and syndication format. The core metadata terms used by RSS are declared within an XML namespace (`http://purl.org/rss/1.0/`). For example, the property called `link` has been assigned the URI reference `http://purl.org/rss/1.0/link`. Other terms are declared within separate groupings, known in RSS as modules. Each module makes use of one or more separate XML namespaces.

Example 2: `http://purl.org/rdn/terms/dateReviewed`
: The UK JISC-funded Resource Discovery Network has developed a small metadata application profile in order to describe the status of its catalogue records. One of the new terms in the application profile is called `dateReviewed`. All the new terms have been defined within an RDN XML namespace (`http://purl.`

org/rdn/terms/). Therefore, the URI reference assigned to the dateReviewed property is http://purl.org/rdn/terms/dateReviewed.

Note that in example 1, the RSS implementors have chosen to embed a version number into the XML namespace URI reference. This allows them to use the same term name within a new XML namespace in future versions of the application profile. This has advantages in some scenarios. However, implementors should be cautious when using this technique because it may result in URI references being assigned to new terms that have the same semantics as existing terms.

#### 3.3 Using "info" URIs

The "info" URI scheme provides a *"mechanism for assigning URI references to information assets that have identifiers in public namespaces"* but that do not have an appropriate existing URI scheme [INFO-URI-SPEC]. The phrase 'information assets' includes all the metadata terms discussed here. Thus, it is appropriate to consider assigning "info" URIs to metadata terms.

Example 1: info:ddc/22/eng//004.678

The terms that make up the Dewey Decimal Classification [DEWEY] have been assigned "info" URIs such that info:ddc/22/eng// can be considered to be an XML namespace URI reference and "004.678" can be considered to be a Dewey term name. Thus the URI reference that has been assigned to that term is info:ddc/22/eng//004.678. Note that the information asset identified by this term is in the English-language Dewey Decimal Classifications (22nd Ed.) and is the classification "Internet".

Note that, somewhat confusingly, the draft "info" URI specification uses different terminology from that used here. In the terminology of the specification, ddc is the *"info URI namespace component"* and 22/eng//004.678 is the *"info URI identifier component"*.

Note also that "info" URIs can not be resolved using current Web browsers (i.e. by using a simple HTTP GET request), though they can be looked-up in the "info" URI registry [INFO-REGISTRY].

At the time of writing, "info" was not a registered URI scheme.

#### 3.4 Using xmlns.com

xmlns.com provides a network space for simple Web namespace management. *"The rationale for registering xmlns.com was to secure a short, memorable domain suitable for naming concepts for use in RDF and XML vocabularies"* [XMLNS]. The FOAF vocabulary [FOAF] uses xmlns.com to provide an XML namespace URI reference for its terms.

Example 1: http://xmlns.com/foaf/0.1/firstName

The firstName term within the FOAF vocabulary uses the http://xmlns.com/foaf/0.1/ XML namespace URI reference and has been assigned the URI reference http://xmlns.com/foaf/0.1/firstName.

Note that, at the time of writing, the status and ownership of the xmlns.com domain was slightly unclear and it is therefore not possible to be sure of the long term persistence of URI references based on this domain.
*Is this a fair comment?*

## 4. Conclusions

In general, all terms used in metadata application profiles must be assigned a URI reference before they can be used in the encoding syntaxes recommended by DCMI. It is recommended that implementors assign URI references to terms following the guidelines provided here. Of the four strategies for assigning URI references to terms listed in this document, the use of PURLs is recommended for the identification of elements, element refinements and encoding schemes and the use of PURLs or "info" URIs is recommended for the identification of terms in controlled vocabularies.
*Do people agree with this conclusion? Is more justification for this conclusion required?*

## References

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**[XML-NAMES]**
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**[PURL]**
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http://info-uri.info/registry/docs/drafts/draft-vandesompel-info-uri-02.txt

**[DEWEY]**
Dewey Decimal Classification
http://www.oclc.org/dewey/

**[INFO-REGISTRY]**
"info" URI registry
http://info-uri.info/

**[XMLNS]**
xmlns.com
http://xmlns.com/

**[FOAF]**
FOAF Vocabulary Specification
http://xmlns.com/foaf/0.1/

---


Metadata associated with this resource: http://dublincore.org/documents/term-identifier-guidelines/index.shtml.rdf

# Modelling DC values as resources in RDF

## A discussion paper

Andy Powell, UKOLN, University of Bath

18 Sept 2004

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## 1. Introduction

DCMI has two documents concerning the use of Dublin Core metadata in RDF. The first, Expressing Simple Dublin Core in RDF/XML is a 'recommendation' and describes how to encode simple DC in RDF/XML. The second, Expressing Qualified Dublin Core in RDF / XML is a 'proposed recommendation' and describes how to encode qualified DC in RDF/XML.

More recently, the DC Architecture WG has been developing a DCMI Abstract Model which provides a reference model against which particular DC encoding guidelines can be compared.

The Abstract Model defines a terminology that includes the following terms (the definitions are repeated here for clarity):

*resource*
: A *resource* is anything that has identity. Familiar examples include an electronic document, an image, a service (e.g., "today's weather report for Los Angeles"), and a collection of other *resources*. Not all *resources* are network "retrievable"; e.g., human beings, corporations, concepts and bound books in a library can also be considered *resources*.

*resource URI*
: A *resource URI* is a URI that identifies a single *resource*.

*property*
: A *property* is a specific aspect, characteristic, attribute, or relation used to describe *resources*.

*property URI*
: A *property URI* is a URI that identifies a single *property*.

*value*
: A *value* is the physical or conceptual entity that is associated with a *property* when it is used to describe a *resource*.

*value URI*
: A *value URI* is a URI that identifies the *value* of a *property*.

*value string*
: A *value string* is a simple string that represents the *value* of a *property*.

One issue with the two DCMI documents for encoding DC in RDF/XML is that they each recommend a different mechanism for encoding the *value string* that represents the *value* of a *property*. In the simple DC recommendation, a construct represented by the RDF graph in figure 1 is used. This construct uses a literal string as the value of the property. In the qualified DC proposed recommendation, a construct represented by the RDF graph in figure 2 is used. This construct represents the *value* of the *property* as an intermediate (often blank) node, allowing further properties to be used to describe the *value* resource, including a simple *value string* (using rdfs:label).

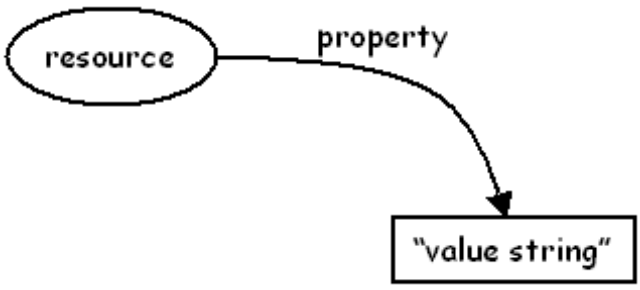


**Figure 1**

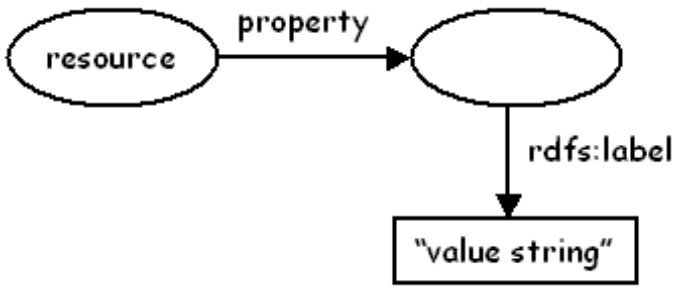


**Figure 2**

In terms of the Abstract Model both these constructs represent the same semantics - they both represent a *resource URI*, a *property URI* and a *value string*. However, in terms of the RDF model, the two constructs are different - non-DCMI applications would not recognise the two graphs as being synonimous. Perhaps more importantly, the use of these different constructs in a DCMI recommendation and a DCMI proposed recommendation has led to some confusion in the RDF implementor community, with some people following one recommendation and others following the other. The confusion is particularly accute where the resource represented by the intermediate node is relatively obvious, for example a person or organisation, as is the case with the dc:creator, dc:contributor and dc:publisher properties. This potentially leads to less interoperability between DC metadata applications than might otherwise be achieved.

Note that DCMI currently makes no recommendations about the class of the intermediate node, nor about whether it should be assigned a URI or be generated as a blank node.

The remainder of this document reviews some possible options for dealing with this situation.

## 2. Options

### 2.1 Option 1 - Status quo

Do nothing. Live with the current levels of confusion, such as they are. We've survived so far! Continue to recommend the two forms of encoding and leave implementors to decide which form best serves their need.

This option is the easiest for DCMI, since it requires no action. However, it does nothing to reduce the current levels of confusion in the implementor community and it doesn't bode well for future interoperability between DC-based implementations of RDF/XML.

### 2.2 Option 2 - Attempt to align the behaviour of consuming applications

This option would make recommendations to the developers of DC-aware software applications about how to handle the metadata records that they consume. For example, we could make a single recommendation along the following lines:

**Recommendation 1**

DC-aware software applications that consume metadata records encoded according to either of the two DCMI documents for encoding DC in RDF/XML should treat the two constructs above as synonimous. Applications may transform DC RDF graphs between the two forms in either direction (either by adding an intermediate blank node or by removing the intermediate node) as and when necessary.

This option providers greater clarity for the DCMI community but doesn't to much to facilitate better interoperability between applications that are not aware of DC conventions.

### 2.3 Option 3 - Attempt to align the behaviour of consuming and generating applications

This option would make recommendations to the developers of DC-aware software applications about both how to handle the metadata records that they consume and how to generate metadata records. For example, we could make two recommendations along the following lines:

**Recommendation 1**

DC-aware software applications that consume metadata records encoded according to either of the two DCMI documents for encoding DC in RDF/XML should treat the two constructs above as synonimous. Applications may transform DC RDF graphs between the two forms in either direction (either by adding an intermediate blank node or by removing the intermediate node) as and when necessary.

**Recommendation 2**

DC-aware software applications that generate metadata records encoded as RDF/XML should use the second construct above (with the intermediate node). This form more closely represents the Abstract Model for DC descriptions and generating the intermediate node when the metadata record is first created provides consuming applications with a 'hook' on which further descriptions of the value can be hung, without needing to modify the structure of the consumed metadata record.

Note that it might be argued that recommendation 2 is unnecessary given recommendation 1, since if DC-aware software applications that consume metadata records are allowed to treat the two constructs as synonimous then it does not matter which form other software applications generate. However, the intention of recommendation 2 is to provide a greater level of interoperability between DC RDF/XML records from different sources when they are consumed by software applications that are not DC-aware - i.e. that have no knowledge of recommendation 1.

This option effectively deprecates DCMI's simple DC in RDF recommendation in its current form, since it essentially recommends against following the guidelines in that document. The current simple DC in RDF recommendation would need to be revised or merged with the qualified DC proposed recommendation in some way.

### 2.4 Option 4 - Attempt to influence the behaviour of the wider Semantic Web community

This option would attempt to convince the wider Semantic Web community that the two graphs above are semantically equivalent. This could be done via the appropriate W3C specifications or by some lighter-weight implementor agreements.

This option has the advantage of leaving current practice on the part of implementors unchanged, but still achieves a high degree of interoperability between RDF applications, whether they are DC-aware or not. Clearly, DCMI would have to work with the W3C and the Semantic Web community to achieve this end.

### 2.5 Option 5 - Replicate existing DC property semantics in new properties

This option would replicate the existing DC properties as new properties with essentially the same semantics as they have now but defined in such a way (using RDFS) that it is explicit that the value of the property is another resource.

For example, DCMI could declare a new term, dcterms:Creator, with essentially the same semantics as dc:creator but with the RDFS declaration of the new term making use of the rdfs:range construct to explicitly indicate that the value is a resource of class dcterms:Agent.

This option would have far reaching consequences for the exitsing usage of DC metadata and for the existing encoding guidelines.

## 3 Conclusions

Of the options presented here, my view is that option 1 is no longer tenable if we want DC to remain a credible standard in the development of the Semantic Web. I also think that option 5 is too drastic for DCMI to consider at this stage in the lifecycle of the standard.

Of the remaining options, option 4 looks interesting but my suspicion is that the Semantic Web community will not be willing to move in this direction. Option 2 doesn't go far enough in terms of ensuring interoperability.

Therefore, my personal view is to move forward with option 3 at this stage. This option will require some reworking of existing DCMI recommendations but it doesn't rule out option 4 happening at some future time if this is deemed to be appropriate by the wider community.

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Andy Powell, UKOLN, University of Bath

# DC Usage Board

## Issues arising from DCMI Abstract Model

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This document summarises issues for discussion at the March 2004 meeting of the DC Usage Board that arise out of the DCMI Abstract Model working draft.

This is not a full list of issues arising from the AM - just those that appear to be of interest to the UB. Apart from the first two, all these issues are primarily for information at this stage - no immediate decisions or actions are required by the UB.

### Relation of the AM to other "foundational" documents maintained by DCMI

There are a number of older DCMI documents that have overlaps with the DCMI Abstarct Model Working Draft. I don't think this matters too much, provided the terminology used across all the documents is the same and appropriate linkages are put in place between documents.

More drastic action could be taken, like removing some of the older documents. However, I don't think that would be justified at this stage.

**Action:** Align terminology at appropriate time.

**Action:** Add links from older DCMI documentation to the AM at appropriate time.

### Wording of term defintions

This is an issue which affects how we define new DCMI terms. The AM states that the values of all DCMI properties are resources - people, organisations, concepts, places, etc.

> *"A DCMI metadata value is the physical or conceptual entity that is associated with a property when it is used to describe a resource. For example, the value of the DC Creator property is a person, organisation or service - a physical entitiy. The value of the DC Date property is a point in time - a conceptual entity. The value of the DC Coverage property may be a geographic region or country - a physical entity. The value of the DC Subject property may be a concept - a conceptual entity - or a physical object or person - a physical entity. Each of these entities is a resource. The value may be identified using a value URI; the value may be represented by one or more value strings and/or rich values; the value may have some related descriptions - but the value is a resource."*

The wording of new DCMI property definitions needs to reflect this. For example, definitions should **not** use phrases like "A reference to ..." or "A URI for ...".

Some of the existing terms definitions are poor in this respect. However, it is probably not possible to change these definitions at this stage.

### Special case of dcterms:URI

It is worth noting that 'dcterms:URI' is treated specially in our syntax encodings. It is used to indicate a *value URI* rather than a *value string*. You'll note that dcterms:URI is almost never used is the RDF/XML and new XHTML encodings, because these have alternative mechanisms for indicating that a *value URI* is being provided ('rdf:resource' and the XHTML 'link' element respectively).

Therfore, dcterms:URI is not a normal syntax encoding scheme.

### Special case of dc:type

The 'dc:type' property is again a slightly special case w.r.t the AM because it is used to indicate the class of the resource being provided.

One might expect little use to be made of 'dc:type' in RDF/XML encodings, because RDF has separate mechanisms for indicating the class of a resource.

### Special case of dc:identifier

Similarily, in combination with 'dcterms:URI', the 'dc:identifier' element can be used to provide the URI of the resource being described.

Again, one would expect little use to be made of 'dc:identifier' in the RDF/XML encoding because RDF provides a separate mechanism for indicating the URI of a resource. The exception to this is where the identifier being provided cannot be encoded as a URI.

### Element refinement and resource classes

This is very much an issue on the distant horizon... but **if** DCMI moves to a position where resources and values are more strongly typed, for example if we start making more use of rdfs:domain and rdfs:range in our RDFS term declarations (this is a big if!), **then** we will have to consider what impact this has on our notion of *element refinement*. For example, I assume that it will be the case that valid element refinement will only occur when the domain and range of the element refinement are the same as or narrower than the domain and range of the element being refined.

### Vocabulary terms as URIs

When a vocabulary term gets a URI assigned to it, it changes from being a *value string* to being a *value URI* and the encoding needs to change to reflect that. So for example in XML, instead of

```
<dc:subject xsi:type="dcterms:DDC">Internet</dc:subject>
```

or

```
<dc:subject xsi:type="dcterms:DDC">004.678</dc:subject>
```

depending on your preference for numbers or words, the encoding would change to something more like

```
<dc:subject xsi:type="dcterms:URI">info:ddc/22/eng//004.678</dc:subject>
```

'DDC' is no longer required as a DCMI encoding scheme because the DDCness of the value is indicated by the URI. Therefore, there is no requirement to 'register' DDC with DCMI.

DCMI needs to consider whether it is better to encourage owners of vocabularies to move towards the use of URIs for their terms, or continue to encourage the registration of new schemes with DCMI or to adopt a mixed approach for the time being.

### Vocabulary Encoding Schemes and Syntax Encoding Schemes

The AM clearly distinguishes between Vocabulary Encoding Schemes and Synatx Encoding Schemes, because they are fundamentally different: one provides classes/types of value resources, the other deals with the format/interpretation of literals. It would appear that these map exactly onto the distinction between Class and Datatype in RDF?

DCMI does currently distinguish these things, but I wonder if that distinction is made forcefully enough in some of our documentation. It is perhaps worth noting, that the lable 'Vocabulary Encoding Scheme' now looks slightly unfortunate, given that this is now seen as a mechanism for indicating the class of the value - however, it may not be sensible or possible to change our terminology at this point.

### Descriptions, records and schemas/application profiles

Rachel has pointed out the the AM, as current presented, doesn't clearly indicate the relationships between descriptions/records and the schemas (or application profiles) that define those things.

Our current thinking, but this hasn't been agreed with all the AM authors, is to extend the model slightly, introducing the notion of a *description set*. A *description set* is a collection of related *descriptions*. We will replace *record* by *description set* in the current 'description' model. We will then add a new 'record' model which indicates that a *record* is an instantiation of a *description set* in a particular encoding syntax.

This has the advantage of clearly separating the conceptual parts of the model (the 'resource' model and the 'description' model') from the instantiated part of the model (the new 'record' model).

It is important to remember that there are two kinds of schemas - syntactic and semantic. A *syntax schema* will be associated with a *record* and will define how the syntax is being used. The most common examples of *syntax schemas* are those using the XML schema language. A *semantic schema* defines what classes of resource are being described, which terms are being used and what their semantics are. The most common examples of *semantic schemas* are those using the RDF Schema and OWL languages. *Semantic schemas* are not necessarily tightly bound to anything in the AM - for example, a *semantic schema* will commonly be used to declare all the terms in a particular namespace.

In this view, an *application profile* is a special kind of *semantic schema* that is associated with a *description set*. The important thing to note is that *application profiles* don't need to say anything about syntax, but do need to cover cases where multiple resources of different classes are being described (e.g. a document and its author).

Finally, it is worth noting that, although *syntax schemas* are currently bound to *records* in a formal way (for example, using xml: schemaLocation), there is no direct linkage between an *application profile* or *semantic schema* and a *description set*. I.e. there is no 'hard line' between these things and any other entities in the AM.

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Andy Powell, UKOLN, University of Bath
March 2004

Title: Dublin Core Structured Values
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/dcsv/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Andy

DCMI has a specification for Dublin Core Structured Values (DCSV), "syntax for writing a list of labelled values in a text string":

http://dublincore.org/documents/dcmi-dcsv/

and three recommendations for specific types of DCSVs:

http://dublincore.org/documents/dcmi-box/
http://dublincore.org/documents/dcmi-period/
http://dublincore.org/documents/dcmi-point/

The Usage Board has a long-standing action on Andy and Andrew to revise the DCSV Specification and the various DCSV scheme specifications after approval of the Abstract Model as a DCMI Recommendation. The Abstract Model is still a "working draft", so this action remains in limbo.

More recently, Pete has posted to DC-ARCHITECTURE regarding the fact that the component parts of a structured value are not directly accessible to an RDF application because the literal requires additional parsing by a DCSV or XML parser. He asks whether there is "any plan to assign URIrefs to the 'components' described in these structured value recommendations - or indeed, find existing non-DCMI vocabularies already in use and describe how they can be applied to these cases - so that they can be used as RDF properties and the information is explicitly available in the RDF graph?" [1].

[1] http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0407&L=dc-architecture&T=0&F=&S=&P=198

Title: Identifiers for DCMI Term Versions
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/version-identifiers/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-29
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Tom

In the context of a CEN working group, I have drafted some "Guidance information for naming, versioning, evolution, and maintenance of element declarations and application profiles" [1].

A key purpose of the draft is to articulate the assumptions which de facto underlie the current approach that DCMI has taken for the past two years or so with regard to versioning individual metadata terms. This approach has not yet undergone a formal review and is not currently within the scope of the DCMI Namespace Policy [2], and I am not aware of any applications out there which depend on the stability of the specific version identifiers hitherto assigned, so this is a good time to take a closer look.

The fundamental question is whether it makes sense to assign URIs to specific historical versions of metadata terms, e.g.:

http://dublincore.org/usage/terms/history/#Image-002
http://dublincore.org/usage/terms/history/#Image-001

in addition to the generic and notional (latest version) identifiers assigned by the DCMI Namespace Policy, e.g.:

http://purl.org/dc/dcmitype/Image

The rationale for doing so (or at any rate my interpretation thereof) is described in more detail in the first three pages of the draft [1]. The section describing the identifiers per se is excerpted below.

If we agree that the approach makes sense in general, then it would be helpful to discuss the following specifics:

-- Whether the URIs hitherto assigned (in effect "anchors" to locations in a specific HTML file) should continue to be used as a model, or whether the URIs should be independent of any particular document.

-- What this policy actually means conceptually. In the draft, I suggest that the DCMI Namespace Policy is in effect about assigning identifiers to a Term Concept, while the historical identifiers are about successive historical states of a Term Description. This would seem to be analogous to the distinction made in ISO 11179 between a "data element concept" and various "representations" thereof (this is described in Appendix A of the draft).

I wonder whether this ultimately has any bearing on the Abstract Model discussion. At a minimum, though, I would like to see this issue through to closure in the form either of an expanded DCMI Namespace Policy or some other form of DCMI-endorsed note. I am putting it on the UB agenda for Shanghai so that we can briefly discuss how we might move this issue forward.

In the meantime, the CEN process requires that we freeze a version of this paper in mid-December, so I would be grateful for critical feedback on technical aspects of the paper by mid-November.

[1] ftp://ftp.cenorm.be/public/ws-mmi-dc/mmidc117.htm
[2] http://dublincore.org/documents/dcmi-namespace/

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3. Naming and identification methods in detail
Excerpt from: ftp://ftp.cenorm.be/public/ws-mmi-dc/mmidc117.htm

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3.1. A metadata term in the abstract (Term Concept)

DCMI began to experiment with URIs in 1997, which led to the formulation in 2001 of a formal Namespace Policy [DCMI-NAMESPACE]. This policy declares URIs for three DCMI namespaces:

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

designating (respectively) the fifteen-element Dublin Core, all other DCMI elements and qualifiers, and a controlled vocabulary of values for the Dublin Core element Type. A URI is constructed for a DCMI term by appending its character-string Name to the URI of a DCMI namespace. For example, the URIs

http://purl.org/dc/elements/1.1/title
http://purl.org/dc/terms/extent
http://purl.org/dc/dcmitype/Image

respectively identify Title (one of the fifteen "core" elements), Extent (an element refinement) and Image (a term in the DCMI Type Vocabulary).

http://purl.org/dc/elements/1.1/contributor
http://purl.org/dc/dcmitype/Collection
http://purl.org/dc/terms/abstract
http://purl.org/dc/terms/LCSH

The policies governing the formation of Names for different types of Terms, particularly with respect to case sensitivity, are described in the "DCMI Policy on Naming Terms" [NAMING-POLICY].

3.2. A historical version of a Term (Term Version)

Individual terms are versioned by creating a snapshot of their attributes whenever any one of their attributes changes and assigning to that snapshot a URI such as the following:

http://dublincore.org/usage/terms/history/#Image-002
http://dublincore.org/usage/terms/history/#Image-001

Although such URIs are not currently supported by the DCMI Namespace Policy, they effectively function as identifiers for successive versions of a term (in this case Image). At present, these URIs resolve to anchors in a Web document which holds a periodically updated snapshot of all past and present versions of all DCMI terms [DCMI-TERMS-HISTORY].

As of the writing of this CWA, no clear practice has emerged for the identification of Term Usages, but it seems probable that they will be handled by analogy to Terms.

### 3.3. Sets of terms and documentational forms thereof

All documentational forms for Term Sets -- Term-Set Documents and Term-Set Schemas -- and Application Profiles are identified and versioned following the example set by the World Wide Web Consortium. For example, W3C identifies any one version of its "RDF Primer" with two URIs, with a pointer to an immediately prior version:

> Latest Version: http://www.w3.org/TR/rdf-primer/
> This Version: http://www.w3.org/TR/2004/REC-rdf-primer-20040210/
> Previous Version: http://www.w3.org/TR/2003/PR-rdf-primer-20031215/

In this example, the Latest Version URI designates the resource at a notional or abstract level; the This Version URI designates the specific historical version one is looking at, which may or may not be linked at any given time to the Latest Version URI; and the Previous Version URI designates a version immediately prior to This Version.

By analogy, Web pages documenting DCMI term sets are identified by a Latest Version and an Identifier (like This Version) with a reference to the immediately prior or immediately following historical version (Replaces or Replaced By). For example, the March 2003 version of the DCMI Metadata Terms document shows the following:

> Latest Version: http://dublincore.org/documents/dcmi-terms
> Identifier: http://dublincore.org/documents/2003/03/04/dcmi-terms/
> Replaced By: http://dublincore.org/documents/2003/11/19/dcmi-terms/

where the Identifier resolves to the permanently archived and unchanging version of the document displayed, Replaced By resolves to the next version that followed, and Latest Version resolves to a continually updated pointer on the DCMI Web site to the most up-to-date version of DCMI Metadata Terms.

Term-Set Schemas maintained by DCMI are identified only by the URI of the specific historical version of a schema, such as in the following example of RDF schemas declaring the Dublin Core Metadata Element Set:

- http://dublincore.org/2000/03/13/dces
- http://dublincore.org/2001/08/14/dces
- http://dublincore.org/2002/08/13/dces
- http://dublincore.org/2003/03/24/dces

Best practice has yet to establish itself for Dublin Core Application Profiles, but it seems probable that they will be handled by analogy to Web documents (i.e., including an identifier for the notional Latest Version) and to schemas (i.e., without an identifier for the notional Latest Version), depending on whether the profiles are published in the form of Web documents or as machine-processable schemas.

ISSS/WS-MMI-DC/117

**Guidance information for naming, versioning, evolution, and maintenance of element declarations and application profiles**

Text (only) of Draft CWA of 15 July 2004 at ftp://ftp.cenorm.be/public/ws-mmi-dc/mmidc117.htm.

CEN/ISSS Workshop on Dublin Core Metadata

## Introduction

The Internet was revolutionary because it made the resources of any connected server accessible via a single global address space. The vision of a future Semantic Web further generalizes this notion of a global space of addresses to that of a global space of identifiers. According to Tim Berners-Lee, "The most fundamental specification of Web architecture, while one of the simpler, is that of the Uniform Resource Identifier, or URI. The principle that anything, absolutely anything 'on the Web' should be identified distinctly by an otherwise opaque string of characters... is core" [BERNERS-LEE].

URIs can uniquely identity not just "information resources" – Web pages, scientific pre-prints, satellite photos, video clips, and the like – but also any metadata terms used to describe those resources. As compact character strings associated with known institutional domain authorities, URIs can stand alone as self-contained references to metadata terms. While relevant to all data technologies, they are usable most directly in Web-based description technologies such as XLink, Topic Maps, and RDF.

The Dublin Core Metadata Initiative (DCMI) uses URIs to identify both the individual versions of terms and the Web pages documenting term sets, though these methods have not yet been documented in detail – hence the need for this CWA.

As such, this document acts as a description of emerging best practice and aims to offer this as example and guidance material for others who are faced with the same issues of naming, versioning, evolution and maintenance of metadata terms.

## 1 Scope

This CWA covers naming conventions for the following entities:

- a metadata term (Term);
- a historical version of a Term (Term Version);
- a set of one or more annotations about a property used in an application as cited in an Application Profile (Property Usage);
- a set of one or more Terms (Term Set);
- a document documenting a Term Set (Term-Set Document);
- a formal schema (e.g., in RDF) declaring one or more Terms (Term-Set Schema);
- a set of one or more Term Usages (Application Profile).

These entities are defined in more detail in "Section 2. Definitions".

This CWA is addressed to people who wish to understand the policies and methods by which DCMI metadata terms and term sets are identified and named and to people who may want to emulate those policies and methods for naming and identifying terms under their own maintenance authority.

## 2 Definitions

DCMI Grammatical Principles. As maintained by the Dublin Core Metadata Initiative, DCMI Grammatical

Principles specify a typology of metadata terms – Elements, Element Refinements, Encoding Schemes, and Vocabulary Terms – along with their interrelationships and functions [DCMI-PRINCIPLES, ABSTRACT-MODEL].

XML 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" [DCMI-NAMESPACE].

Namespace URI. A Namespace URI is a Uniform Resource Identifier designating an XML Namespace.

Term, or Metadata Term. In this CWA, a metadata term is a word-like entity such as those defined by DCMI Grammatical Principles. In accordance with DCMI practice, a Term is defined with a Term Description and is identified by a Uniform Resource Identifier (URI) within a DCMI Namespace.

Term Concept. A Term Concept is the basic meaning of a Term.

Term Description. A Term Description is a cluster of (mostly) human-readable attributes of a Term such as Name, Label, Definition, Comment, Date, and Status.

Term Declaration. A Term Declaration is the machine-processable representation of a Term Description in the context of a schema language.

Term Version. A Term Version is the state of a Term Description as of a specific historical moment.

Term Translation. A Term Translation is a Term Description rendered in an alternative language, such as Japanese or French.

Term Usage. A Term Usage is a description of how a previously declared Term from a Metadata Vocabulary is deployed in the context of an application. The Term Usage is a defining feature of an Application Profile.

Term Set. A Term Set is a maintained set of Terms and Term Descriptions managed as a coherent unit by an Agency. In this CWA, Term Set is a synonym for Metadata Vocabulary.

Term-Set Document. A Term-Set Document is a human-readable document listing or describing one or more Terms maintained as a Term Set. The Web pages documenting DCMI Semantic Recommendations are examples of Term Set Documents.

Term-Set Schema, or Schema Document. A Term-Set Schema is a document containing a machine-processable description of a Term Set.

Application Profile. An Application Profile – or in this CWA a Dublin Core Application Profile (DCAP) – is a declaration specifying, at a minimum, which metadata terms an organization, information provider, or user community uses within a particular application.

Agency. An Agency is an entity responsible for managing one or more Term Sets.

## 3 Basic approach

When the Dublin Core was first drafted in 1995, discussion focused on the names of the core elements – short strings such as "title" and "date". As the Dublin Core came to be considered for use with the emerging technologies of XML and RDF, discussion turned towards the notion of a "namespace". As a concept "namespace" was, and remains today, rather slippery. For the purposes of this CWA, suffice it to say that "namespace" captures the notion of a clearly identified set of terms. DCMI began to experiment with using URIs to identify the Dublin Core "namespace" in 1997. The growth of DCMI's namespace (or namespaces) with the addition of several dozen qualifiers in 2000 forced a clarification of various issues related to naming, identifying, and versioning DCMI terms. In 2001, the approach, which had evolved, was articulated in a formal DCMI Namespace Policy [DCMI-NAMESPACE].

The DCMI Namespace Policy declares three "DCMI namespaces" – identifiers (URIs) for three DCMI term sets such as http://purl.org/dc/elements/1.1/ to designate the Dublin Core Metadata Element Set Version 1.1. URIs for individual DCMI terms are formed by appending the character-string Name of the term to the URI for its DCMI namespace. This mechanism is discussed in more detail below.

Aside from describing how DCMI terms are assigned identifiers, the namespace policy acknowledges that terms can and will change over time and focuses on articulating the consequences of change for unique identity. "Minor" or "substantive" errata may be corrected without consequence for URIs. Changes of a semantic nature, however, such as significant changes in the wording of a definition, must trigger the creation of a new term with a new URI. To support the future interpretation of legacy metadata, the Namespace Policy commits DCMI to maintaining formal documentation for all assigned URIs – even for terms that might some day be assigned a status of "obsolete".

Within the limits of the Namespace Policy, the DCMI vocabularies are subject to growth and change over time – new terms are added, a bibliographic reference cited in a usage comment may be updated, the status assigned to a term may change. The fifteen-element Dublin Core was initially versioned as a set and, as noted above, the version number "1.1" is hard-coded into the string used as the URI of its DCMI namespace.

As of July 2000, new terms were issued without such a version number because the model of periodic, batched releases seemed a bad fit to a vocabulary that was expected to grow by increment. Nonetheless, the ability to reference a term set as of a given date was seen as potentially useful for library automation contracts, translations of DCMI term sets into another languages, or the future interpretation of legacy metadata. The pragmatic solution to this problem has been to version both individual terms (which evolve at different rates) and Web documents describing batches of terms as of a particular date (which are updated whenever a term is added or anything else in the term set changes).

The idea behind a metadata term may be thought of as a Term Concept. As discussed below, a Term Concept is what DCMI identifies with its Namespace Policy. For example, the Dublin Core element Subject is identified with the URI http://purl.org/dc/elements/1.1/subject. This is the identifier for Subject that metadata implementers (if they use URIs at all) are supposed to use in their metadata.

A Term is described with a Term Description – a cluster of (mostly) human-readable attributes such as Name, Label, Definition, Comment, Date, and Status. The Term Description for Subject is maintained by DCMI and published in various forms – in a Web document, an RDF schema, and an XML schema, each with its own URI. When the Term Description is represented in a machine-processable schema language, it is referred to as a Term Declaration.

A Term Description, however, can evolve over time – the status of an element can change, a comment can be reworded for clarity, a bibliographical reference can be updated. Each successive historical state of a Term Description can be seen as a Term Version. DCMI currently identifies these successive Term Versions with URIs, though those URIs are not yet supported by official DCMI policy.

The distinction between Term Concepts and Term Versions is roughly analogous to the distinction made in the ISO/IEC 11179 standard for describing metadata elements in the context of metadata registries (see Appendix A).

The method described here in effect treats Terms analogously to how W3C and DCMI treat documents – e.g., with a URI for a notional entity that may evolve in the form of separately identified historical versions (this analogy is described in more detail below). The limits within which a Term may evolve and still refer to the same Term Concept are described in the DCMI Namespace Policy [DCMI-NAMESPACE]. In essence, if a Term evolves in ways that are semantically incompatible with the Term Concept, it must be considered a new Term and given a new URI.

A Term Translation – a Term Description rendered in an alternative language, such as Japanese or French – is something that is "about" a Term Concept but does not translate that Term Concept directly. Rather, it translates a Term Description. Specifically, it translates a particular Term Version – a Term Description at a given point in time. In other words, a given Japanese translation of the element Subject may be about the Term Concept Subject (http://purl.org/dc/elements/1.1/subject), but it actually "translates" a specific Term Version (http://dublincore.org/usage/terms/history/#subject-002). Both assertions ("about" and "translates") seem necessary to fully express

what is intended.

Another type of assertion "about" another term is being developed in the context of discussion about Dublin Core Application Profiles (DCAPs): the Term Usage. A Term Usage is an assertion that a given application or set of metadata "uses" a term (as identified by its URI). A Term Usage may optionally be annotated with a Term Usage Description – various sorts of usage notes such as context-specific clarifications of definition, local cataloguing rules, constraints on cardinality and the like.

Whenever anything in any Term Description of any Term Set changes, DCMI publishes multiple types of documentation reflecting those changes. At present, DCMI publishes the updated information both as Web documents and as machine-processable schemas.

In sum, what we refer to as a Term is identified with multiple URIs serving different purposes:

- A Term is identified with a URI for its Term Concept. This is what Term Versions and Term Translations are "about". It is the common reference point that holds all of the versions and translations together and promotes the interoperability of descriptive metadata in open, loosely-coupled, distributed systems. Since Term Sets inevitably evolve, policies for the identification of Term Concepts must allow for and expect a certain amount of change. The pragmatic solution is to allow and make provisions for any change that remains "semantically compatible" with the Term Concept.
- A Term is also identified with URIs for its multiple Term Versions. Each Term Version represents a Term Description at a specific historical moment and may need to be referencable as such – for example, as the source text for a Term Translation.

In contrast, all Term Sets and Application Profiles, including Web documents and machine-processable representations thereof, are identified and versioned by analogy both to the versioning of documents by W3C and to the versioning of Terms described above – i.e., by URI for the resource in a generic sense (the namespace-policy-supported URI for a Term or Latest Version for a document) as well as for a specific historical version of the same.

## 4 Naming and identification methods in detail

### 4.1 A metadata term in the abstract (Term Concept)

DCMI began to experiment with URIs in 1997, which led to the formulation in 2001 of a formal Namespace Policy [DCMI-NAMESPACE]. This policy declares URIs for three DCMI namespaces:

http://purl.org/dc/elements/1.1/

http://purl.org/dc/terms/

http://purl.org/dc/dcmitype/

These URIs designate (respectively) the fifteen-element Dublin Core, all other DCMI elements and qualifiers, and a controlled vocabulary of values for the Dublin Core element Type. A URI is constructed for a DCMI term by appending its character-string Name to the URI of a DCMI namespace. For example, the URIs:

http://purl.org/dc/elements/1.1/title

http://purl.org/dc/terms/extent

http://purl.org/dc/dcmitype/Image

These URIs respectively identify Title (one of the fifteen "core" elements), Extent (an element refinement) and Image (a term in the DCMI Type Vocabulary).

The policies governing the formation of Names for different types of Terms, particularly with respect to case sensitivity, are described in the "DCMI Policy on Naming Terms" [NAMING-POLICY].

### 4.2 A historical version of a Term (Term Version)

Individual terms are versioned by creating a snapshot of their attributes whenever any one of their attributes changes and assigning to that snapshot a URI such as the following:

http://dublincore.org/usage/terms/history/#Image-002

http://dublincore.org/usage/terms/history/#Image-001

Although the DCMI Namespace Policy does not currently support such URIs, they effectively function as identifiers for successive versions of a term (in this case Image). At present, these URIs resolve to anchors in a Web document that holds a periodically updated snapshot of all past and present versions of all DCMI terms [DCMI-TERMS-HISTORY].

As of the writing of this CWA, clear practice is yet to emerge for the identification of Term Usages, but it seems probable that they will be handled by analogy to Terms.

### 4.3 Sets of terms and documentational forms thereof

All documentational forms for Term Sets – Term-Set Documents and Term-Set Schemas – and Application Profiles are identified and versioned following the example set by the World Wide Web Consortium. For example, W3C identifies any one version of its "RDF Primer" with two URIs, with a pointer to an immediately prior version:

Latest Version: http://www.w3.org/TR/rdf-primer/

This Version: http://www.w3.org/TR/2004/REC-rdf-primer-20040210/

Previous Version: http://www.w3.org/TR/2003/PR-rdf-primer-20031215/

In this example, the Latest Version URI designates the resource at a notional or abstract level; the This Version URI designates the specific historical version one is looking at, which may or may not be linked at any given time to the Latest Version URI; and the Previous Version URI designates a version immediately prior to This Version.

By analogy, Web pages documenting DCMI term sets are identified by a Latest Version and an Identifier (like This Version) with a reference to the immediately prior or immediately following historical version (Replaces or Replaced By). For example, the March 2003 version of the DCMI Metadata Terms document shows the following:

Latest Version: http://dublincore.org/documents/dcmi-terms/

Identifier: http://dublincore.org/documents/2003/03/04/dcmi-terms/

Replaced By: http://dublincore.org/documents/2003/11/19/dcmi-terms/

The Identifier resolves to the permanently archived and unchanging version of the document displayed,

Replaced By resolves to the next version that followed, and Latest Version resolves to a continually updated pointer on the DCMI Web site to the most up-to-date version of DCMI Metadata Terms.

Term-Set Schemas maintained by DCMI are identified only by the URI of the specific historical version of a schema, such as in the following example of RDF schemas declaring the Dublin Core Metadata Element Set:

http://dublincore.org/2000/03/13/dces

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

http://dublincore.org/2002/08/13/dces

http://dublincore.org/2003/03/24/dces

Best practice has yet to establish itself for Dublin Core Application Profiles, but it seems probable that they will be handled by analogy to Web documents (i.e., including an identifier for the notional Latest Version) and to schemas (i.e., without an identifier for the notional Latest Version), depending on whether the profiles are published in the form of Web documents or as machine-processable schemas.

## 5 References

[ABSTRACT-MODEL] Andy Powell, Mikael Nilsson, Ambjörn Naeve, Pete Johnston. DCMI Abstract Model. http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/.

[BERNERS-LEE] Tim Berners-Lee, "Web Architecture from 50,000 feet". http://www.w3.org/DesignIssues/Architecture.html.

[CWA14855] "Dublin Core Application Profile Guidelines", http://www.cenorm.be/isss/cwa14855/.

[DCMI-NAMESPACE] Namespace Policy for the Dublin Core Metadata Initiative, http://dublincore.org/documents/dcmi-namespace/.

[DCMI-PRINCIPLES] DCMI Grammatical Principles, http://dublincore.org/usage/documents/principles/.

[DCMI-TERMS] DCMI Metadata Terms, http://dublincore.org/documents/dcmi-terms/.

[DCMI-TERMS-HISTORY] http://dublincore.org/usage/terms/history/

[ISO11179] http://metadata-stds.org/11179/

[ISO 11179-1] ISO/IEC 11179-1: Information technology -Specification and standardization of data elements - Part 1: Framework for the specification and standardization of data elements, 1999 edition. Now under revision, see http://metadata-stds.org/11179/

[ISO 11179-3] ISO/IEC 11179-3, Information technology - Specification and standardization of data elements - Part 3: Basic attributes of data elements, 1994 edition.

[ISO 11179-6] ISO/IEC 11179-6, Information technology - Specification and standardization of data elements - Part 6: Registration of data elements, 1997 edition. Now under revision, see http://metadata-stds.org/11179/

[NAMING-POLICY] DCMI Policy on Naming Terms, http://dublincore.org/documents/naming-policy/.

## Appendix A. Versioning of data elements in ISO 11179

ISO/IEC 11179 is a multipart standard specifying a framework, attribute sets, naming principles, and a Registration Authority structure to support the operation of metadata registries [ISO11179]. In ISO 11179, a data element is defined as "A unit of data for which the definition, identification, representation and permissible values are specified by means of a set of attributes". A data element concept is defined as "A concept that can be represented in the form of a data element, described independently of any particular representation" [ISO 11179-3].

ISO 11179 takes a "data element" as the fundamental unit of data managed by an organization. The standard differentiates a data element concept from its representation. This has advantages for versioning, as the underlying data concept can remain unchanged whilst being linked to data elements with various identifiers and versions.

In ISO 11179, a number of attributes can be used to specify a data element. Such attributes are grouped into categories such as Identifying, Definitional, and Relational Attributes. One of the Identifying attributes is "Identifier" and another is "Version". ISO 11179-6 defines a Version as "Identification of an issue of a data element specification in a series of evolving data element specifications within a Registration Authority" and associates such versions with version identifiers.

ISO 11179-6 [ISO 11179-6] recommends practice for change control at the level of data element and version attribute. The standard recommends that the data element identifier for an existing data element should change when the data element "is modified in such a way as to change the meaning of the data element or the representation form of the potential values of the data element". An example is given whereby changes to the Definition might trigger a new data element identifier, although editorial changes to the definition would not cause generation of a new data element, as long as the essential meaning expressed by the definition remains the same. Similarly, changes to the Form of Representation would require the assignment of a new Data Element Identifier, though changes to the value of administrative attributes might not necessitate generation of a new Data Element Identifier.

The standard recommends assignment of a new version identifier when any attribute value, other than one requiring a new Data Element Identifier, changes.

## Appendix B. Identification and versioning of elements in IEEE/LOM

The Learning Object Metadata standard (IEEE 1484.12.1-2002) assigns names to data elements according to a naming convention. For example, the name "7.2.2:Relation.Resource.Description" indicates that

- "Relation" is the name of the seventh top-level data element (called a category in LOM),
- the name of its second sub-element is "Resource", and
- the name of its third sub-element is Description.

The complete name, then, refers to the innermost sub-element.

As explained in Clause 4.2 of the LOM standard, the name is used to refer to the data element only. Indeed, Clause 4.7 specifies: "This standard does not define tokens for element names or vocabulary values. It is expected that such tokens will be defined in bindings of this standard."

One such binding – the LOM XML binding (IEEE 1484.12.3) – is currently being finalized. This binding does define actual tokens to be used for the XML elements, which correspond to LOM data elements. All such tokens are grouped in a schema "common/elementNames.xsd". Not surprisingly, the tokens used in the LOM XML binding correspond directly with the names used in the LOM standard.

The LOM standard does not only define names for data elements. It also defines vocabulary values for data elements that are of type vocabulary. As explained in Clause 4.4 of the LOM standard: "Vocabularies are defined for some data elements. A vocabulary is a recommended list of appropriate values. Other values, not present in the list, may be used as well. However, metadata that rely on

the recommended values will have the highest degree of semantic interoperability; i.e., the likelihood that such metadata will be understood by other end users or systems is highest." As mentioned above, the LOM standard does not define the token to be used to represent the vocabulary values! That information can again be found in the binding document, as in for instance the LOM XML binding.

The general approach in the LOM standard to versioning is that the standard may evolve with different versions of the complete "base schema" (the actual data element structure defined in LOM). There are no specific provisions to evolve different versions of particular data elements.

Indeed, the data element 3.3:Meta-Metadata.MetadataSchema represents "The name and version of the authoritative specification used to create this metadata instance. NOTE: This data element may be user selectable or system generated. If multiple values are provided, then the metadata instance shall conform to multiple metadata schemas."

In line with this general spirit, the LOM XML binding defines the LOM namespace as "http://ltsc.ieee.org/xsd/LOMv1p0": in other words, the namespace includes the versioning information, and names of new versions of data elements would belong to a different namespace.

For vocabulary values, the LOM standard includes a source that can include versioning information. The value of vocabulary data elements is a pair (source, value). If the source is "LOMv1.0", then the value space is described by the LOM standard. If the source is not "LOMv1.0", then users and implementers are encouraged to create vocabularies that do not conflict with this standard. If a vocabulary is used that intersects with the LOMv1.0 vocabulary, then only the values not included in this standard should have a source that is not "LOMv1.0". This will maximize semantic interoperability for the values that are included in this standard.

Topic: Attributes of DCMI Terms ("Usage Board profile")
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker
Latest version: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/profiles-usageboard/

Shepherd: Tom

Discussion in Shanghai:

In Shanghai, I would like to briefly discuss the following issue in order to define a process for moving this forward. At a minimum, I would like to determine the extent to which these issues should be decided in the Usage Board (as opposed to DC-Architecture or the Directorate). We will not have time in Shanghai to discuss any of these points in detail, so UB members need not read the following as carefully as they might have otherwise. At a most general level, I would like to know how urgent we feel it is to clarify aspects of this problem.

Summary of the issue:

The issue of "DCMI terms describing DCMI terms" has been on the back burner for a long time. We have already in effect defined more than two dozen metadata terms describing various attributes of metadata terms (Name, Label, Definition; types of Status; etc...). However, we have merely documented these terms in Web pages [1,2] -- never have we "declared" the terms formally or assigned them URI references backed by DCMI Namespace Policy. For the purpose of the RDF schemas, we have mapped the handful of attributes most needed for the schemas to existing terms (e.g., in the rdfs namespace maintained by W3C).

We need both to clarify both the status of these terms (perhaps taking the occasion to clean up some of the definitions) and the policy by which the terms will be maintained (if different from the existing DCMI Namespace Policy). We also need to consider whether the terms should be assigned URIs and documented in RDF schemas, as other DCMI metadata terms already are.

According to my notes, we discussed this issue briefly in Ithaca in 2003 and concluded that the following steps would be involved:

1. Define the set of properties and encoding schemes for describing terms.
2. Understand how they relate to existing terms.
3. Ask DCMI Directorate for UB namespace.
4. Set up UB namespace and declare terms as necessary.
5. Define an application profile.

At present, the terms we use are defined in the introductions of two documents - the consolidated document "DCMI Metadata Terms" [1] and the historically complete "DCMI Metadata Terms: a complete historical record" [2]. I have attached a summary of the terms and their definitions below.

I currently see the following issues:

1) We need to look carefully at the RDF schema binding to determine which of the attributes used in [1] and [2] are really needed in the RDF schemas. From my notes, here is a draft mapping, with reference to a hypothetical namespace "dcu:" to hold terms not yet formally declared:

```
Name:              NOT USED
Namespace:         rdfs:isDefinedBy   rdf:resource="xxx"
Label:             rdfs:label         xml:lang="en-US"
Definition:        rdfs:comment       xml:lang="en-US"
Type of term:      rdf:type           rdf:resource="http://.../#element"
Status:            dcu:status         rdf:resource="http://.../#recommended"
Date issued:       dcterms:issued
Comment:           dc:description     xml:lang="en-US"
See:               rdfs:seeAlso       rdf:resource="http://..."
References:        dcterms:references rdf:resource="http://.../#W3CDTF"
Refines:           rdfs:subPropertyOf
Qualifies:         dcu:qualifies
Date modified:     dcq:Modified
Decision:          dcu:decision       rdf:resource = "uri"
Version:           dcu:version        rdf:resource = "uri"
Replaces:          NOT USED
Is Replaced By:    NOT USED
Broader Than:      NOT USED
Narrower Than:     rdfs:subClassOf
```

Of course, we need to consider the possibility that not all of the attributes of [1] and [2] would be needed in the RDF schemas.

2) If we accept the mappings of some terms defined in [1] and [2] to existing terms in namespaces maintained by W3C and to DCMI's own Terms namespace, then at a minimum it would appear we would need to declare the following:

    dcu:status - Harry needs this for the DCMI Registry
    dcu:qualifies
    dcu:decision
    dcu:version

3) In addition, it would appear we need the term

    dcu:isTranslationOf

Harry needs this for the DCMI Registry, and Tom thinks this is needed so that a translation of DCMI term definitions into languages such as Japanese can reference the specific Term Version used as the basis for the translation.

4) The term dcu:status has, in effect, a controlled vocabulary of values:

    http://dublincore.org/usage/documents/process/#conforming
    http://dublincore.org/usage/documents/process/#recommended
    http://dublincore.org/usage/documents/process/#registered

These are currently defined in the document DCMI Usage Board Process, and the URIs are anchors to specific points in that document. We should consider whether it is a good idea to continue this or whether we would want to declare a status vocabulary, and if so, how their URIs should be formed.

5) The term "Type of Term" (currently mapped in the RDF binding to rdf:type) also has, in effect, a controlled vocabulary of values:

    http://dublincore.org/usage/documents/principles/#element-refinement
    http://dublincore.org/usage/documents/principles/#element
    http://dublincore.org/usage/documents/principles/#encoding-scheme
    http://dublincore.org/usage/documents/principles/#vocabulary-term

6) Work on the DCMI Abstract Model [3] and a formal model for DCMI Application Profiles [4] suggests a need for several other terms, along the lines of:

    dcu:ApplicationProfile
    dcu:PropertyUsage

   In September 2004, Pete posted a strawman set of terms at http://homes.ukoln.ac.uk/~lispj/cen-cwa/vocab/dcapterms.rdf.

7) DCMI's RDF schemas [5] have long asserted the existence of URI references for terms based on the DCMI Namespace http://purl.org/dc/terms/ -- even though, technically, this should not have been possible without going through UB process. These include:

    http://purl.org/dc/terms/DateScheme
    http://purl.org/dc/terms/FormatScheme
    http://purl.org/dc/terms/IdentifierScheme
    http://purl.org/dc/terms/LanguageScheme
    http://purl.org/dc/terms/SpatialScheme
    http://purl.org/dc/terms/SubjectScheme
    http://purl.org/dc/terms/TypeScheme

   We would need to formulate a policy for creating, maintaining, and identifying such terms - bearing in mind that the terms above are already "legacy" (i.e., for all we know, there may be applications in the world that would break if DCMI were to drop or deprecate these terms).

8) Since the addition of

    http://purl.org/dc/dcmitype/MovingImage
    http://purl.org/dc/dcmitype/StillImage

   we have two new attributes for Vocabulary Terms:

    Broader Than
    Narrower Than - currently represented with rdfs:subClassOf

---

Usage Board Application Profile (draft)

---

Mandatory

| | | |
|---|---|---|
| Name | [1] | The unique token assigned to the term. |
| URI | [1] | The Uniform Resource Identifier used to uniquely identify a term. |
| Namespace | [2] | The Uniform Resource Identifier of the namespace within which the term is defined. |
| Label | [1] | The human-readable label assigned to the term. |
| Definition | [1] | A statement that represents the concept and essential nature of the term. |
| Type of term | [1] | The type of term, such as Element or Encoding Scheme, as described in the DCMI Grammatical Principles. |
| Status | [1] | Status assigned to term by the DCMI Usage Board, as described in the DCMI Usage Board Process. |
| Date issued | [1] | Date on which a term was first declared. |

When appropriate

| | | |
|---|---|---|
| Comment | [1] | Additional information about the term or its application. |
| See | [1] | A link to authoritative documentation. |

```
   References     [1] A citation or URL of a resource referenced
                      in the Definition or Comment.
   Refines        [1] A reference to a term refined by an Element
                      Refinement.
   Qualifies      [1] A reference to a term qualified by an Encoding
                      Scheme.
   Broader Than   [1] A reference from a more general to a more specific
                      Vocabulary Term
   Narrower Than  [1] A reference from a more specific to a more general
                      Vocabulary Term

Version-related
   Date modified  [2] Date on which a term declaration was subsequently
                      modified.
   Decision       [2] A link to the Usage Board decision describing
                      the creation or modification of a term
                      declaration.
   Version        [2] An historical version of a term declaration.
   Replaces       [2] A reference to the immediately precedent
                      historical version of a term declaration.
   Is Replaced By [2] An identifier for the historical version of a
                      term declaration by which this historical version
                      is superseded.
```

REFERENCES


[1] http://dublincore.org/documents/dcmi-terms/
[2] http://dublincore.org/usage/terms/history/
[3] http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/
[4] ftp://ftp.cenorm.be/public/ws-mmi-dc/mmidc116.htm
[5] http://dublincore.org/2003/03/24/dcq
[6] http://homes.ukoln.ac.uk/~lispj/cen-cwa/vocab/dcapterms.rdf


---

Strawman vocabulary drafted by Pete Johnston, July 2004
-- http://homes.ukoln.ac.uk/~lispj/cen-cwa/vocab/dcapterms.rdf
   about a hypothetical http://example.org/dcap/

---

```
  dcap:SchemaDocument     http://example.org/dcap/
  dc:title                Schema for the DCAP vocabulary
  dc:description          This schema contains descriptions of the DCAP terms.
                          Terms are declared using RDF Vocabulary Description Language
                          (RDF Schema).
  dc:publisher            http://www.ukoln.ac.uk/#

  dcap:MetadataVocabulary http://example.org/dcap/#
  dc:title                The DCAP Vocabulary
  dc:description          The DCAP Vocabulary provides classes and properties
                          used to describe Dublin Core Application Profiles and Property
Usages
                          and related resources.
  dc:publisher            http://www.rdn.ac.uk/#
  dcap:seeAlso            http://www.ukoln.ac.uk/projects/iemsr/wp2/dcap/
  dcap:preferredXMLNamespaceName
                          dcap
  dcap:preferredXMLNamespacePrefix
                          http://example.org/dcap/

  rdfs:Class              http://example.org/dcap/Document
  Label:                  Document

  rdfs:Class              http://example.org/dcap/SchemaDocument
  Label:                  Schema Document
```

rdfs:Class http://example.org/dcap/Agency
Label: Agency

rdfs:Class http://example.org/dcap/MetadataVocabulary
Label: Metadata Vocabulary

rdfs:Class http://example.org/dcap/AppProfile
Label: Application Profile

rdfs:Class http://example.org/dcap/PropertyUsage
Label: Property Usage

rdfs:Class http://example.org/dcap/BindingSchema
Label: Binding Schema

rdfs:Class http://example.org/dcap/VocabStatus
Label: Vocabulary or Profile Status

dcap:VocabStatus http://example.org/dcap/VocabStatus/private
Label: Private

dcap:VocabStatus http://example.org/dcap/VocabStatus/draft
Label: Draft

dcap:VocabStatus http://example.org/dcap/VocabStatus/proposedRecommendation
Label: Proposed Recommendation

dcap:VocabStatus http://example.org/dcap/VocabStatus/recommendation
Label: Recommendation

rdfs:Class http://example.org/dcap/TermStatus
Label: Vocabulary or Profile Status

dcap:TermStatus http://example.org/dcap/TermStatus/private
Label: Private

dcap:TermStatus http://example.org/dcap/TermStatus/unstable
Label: Unstable

dcap:TermStatus http://example.org/dcap/TermStatus/testing
Label: Testing

dcap:TermStatus http://example.org/dcap/TermStatus/stable
Label: Stable

dcap:TermStatus http://example.org/dcap/TermStatus/deprecated
Label: Deprecated

rdfs:Class http://example.org/dcap/Obligation
Label: Obligation

dcap:Obligation http://example.org/dcap/Obligation/reserved
Label: Reserved

dcap:Obligation http://example.org/dcap/Obligation/optional
Label: Optional

dcap:Obligation http://example.org/dcap/Obligation/recommended
Label: Optional (Recommended)

dcap:Obligation http://example.org/dcap/Obligation/mandatory
Label: Mandatory

rdf:Property http://example.org/dcap/uses
Label: Uses
rdfs:range http://www.w3.org/1999/02/22-rdf-syntax-ns#Property

rdf:Property http://example.org/dcap/encodingScheme
Label: Encoding Scheme

rdf:Property http://example.org/dcap/obligation
Label: Obligation
rdfs:range http://example.org/dcap/Obligation

rdf:Property http://example.org/dcap/condition
Label: Condition

rdf:Property http://example.org/dcap/maxOccurs
Label: Maximum Occurrences

rdf:Property http://example.org/dcap/isMemberOf
Label: Is Member Of

rdf:Property http://example.org/dcap/seeAlso
Label: See also
rdfs:range http://example.org/dcap/Document

rdf:Property http://example.org/dcap/version
Label: Version

rdf:Property http://example.org/dcap/status
Label: Status

rdf:Property http://example.org/dcap/isExpressedBy
Label: Is Expressed By
rdfs:range http://example.org/dcap/BindingSchema

rdf:Property http://example.org/dcap/preferredXMLNamespaceName
Label: Preferred XML Namespace Name

rdf:Property http://example.org/dcap/preferredXMLNamespacePrefix
Label: Preferred XML Namespace Prefix

Title: Terms proposed by Collection Description WG
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-collection/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Andrew

-- Accrual Method (element)
http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/

-- Accrual Periodicity (element)
http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/

-- Accrual Policy (element)
http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/

-- Dublin Core Collection Description Accrual Method (encoding scheme)
http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/

-- Dublin Core Collection Description Accrual Periodicity (encoding scheme)
http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/

-- Dublin Core Collection Description Accrual Policy (encoding scheme)
http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/

Pete writes:

(i) The last meeting of the Usage Board decided that it was appropriate to consider resource-type-specific properties as candidates for the DCMI Namespaces: these are clearly Collection-specific properties, in that they deal with describing the addition of items to the subject resource, and this really only makes sense if that subject resource is a Collection - bearing in mind that we've adopted the broad DCMIType definition of "an aggregation of items", so resources like Weblogs or Wikis (maybe Websites in general) could be described as collections, if it was useful to treat them as such.

(ii) Our suggested names for the encoding schemes simply reflect the domain of use we have in mind and the property they provide values for ("DCCDAccrualMethod" etc), but that has resulted in some fairly lengthy and non-too-human-readable tokens, and I think we'd be quite happy if those names were altered!

(iii) We have constructed short lists of values for the encoding schemes. In two of the three cases, those lists have been constructed by the DC CD WG (the third list is drawn from MARC21). It may be useful (though not essential) to be able to refer (in an RDF representation) to these individual values as resources using URI references i.e. not just to refer to the encoding scheme (an RDF Class) using a URI reference but to refer to the individual value as an instance of that class using a URI reference too. Is this something the Usage Board is able to consider? (If not then I think the schemes are still useful with the values treated as blank nodes.)

| | |
|---|---|
| **Title:** | **Dublin Core Collection Description Proposed Term : Accrual Method** |
| **Creator:** | Dublin Core Collection Description Working Group |
| **Date Issued:** | 2004-08-18 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/2004-08-18/ |
| **Replaces:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/2004-07-30/ |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document presents a proposal from the Dublin Core Collection Description Working Group for a new collection-specific element, accrualMethod. |

## Introduction

The Dublin Core Collection Description Working Group is developing a a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection itself as a resource, rather than the description of each of the individual items that make up that collection. The work adopts a broad definition of a collection and is seeking to develop a schema which is applicable to a wide range of collections.

One of the requirements is to provide information about whether and how items are added to a collection. Such information can provide indications of the significance and the currency of a collection. Three distinct but related categories of information have been identified:

- the policy governing the addition of items to a collection
- the method by which items are added to a collection
- the frequency with which items are added to a collection

While these attributes are related, they are sufficiently distinct to be represented using three separate properties that can be used to make distinct statements about the collection.

No existing properties in the DCMI vocabularies support the capture of this information. It is not covered by `dc:description` since this information deals with the process of adding items, rather than with the content of the collection (or of the items within the collection.

## Accrual Method

This property allows statements to be made about the mechanism by which items are added to the collection.

This property supports searches of the form

Find collections that have an Accrual Method corresponding to a specified value (e.g. donation)

It also allows a user to obtain a value for Accrual Method for a known collection, or to compare values for collections that have been discovered according to some other criteria.

Furthermore, the use of a vocabulary encoding scheme provides a list of unambiguous values for the property, and supports the construction of precise operations on metadata using this property. The property could be used with other encoding schemes or with free text values.

**Proposal**

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|---|---|
| **Name** | **accrualMethod** |
| **Label** | Accrual Method |
| **Definition** | The method by which items are added to a collection. |
| **Comment** | Recommended best practice is to use a value from the DCCD Accrual Method encoding scheme. |
| **Examples** | The Accrual Method for a library subject collection for which new books and journals are bought:<br><br>Purchase [(Proposed) DCCD Accrual Method]<br><br>The Accrual Method for a special collection to which items are added as gifts:<br><br>Donation [(Proposed) DCCD Accrual Method]<br><br>The Accrual Method for a catalogue for which new metadata records are created by the owner:<br><br>ItemCreation [(Proposed) DCCD Accrual Method] |
| **Type of term** | Element |
| **Term qualified** | [n/a] |
| **Why needed** | Information about the mechanisms by which items are being added to a collection helps a user to *find* a collection. Specifically this property will support searches of the form:<br><br>Which collections have Accrual Method of "Donation"?<br><br>Which Accrual Methods are in use for collections with Accrual Policy of "Active"?<br><br>etc<br><br>Perhaps more importantly, it allows a user to *select* from amongst a number of candidate collections, and/or to *compare* this attribute of collections that are otherwise similar.<br><br>It also helps a user to *interpret* a collection that they have found or selected by some other criteria. |

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| **Working Group support** | See the mailing list archives of the WG, especially Jul 2004. |
| **Proposed status** | Conforming |
| **Related DCMI terms** | [n/a] |
| **Related non-DCMI terms** | (Proposed encoding scheme) DCCDAccrualMethod<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/<br><br>(Proposed element) accrualPeriodicity<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/<br><br>(Proposed element) accrualPolicy<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/<br><br>The **International Standard for Archival Description (ISAD(G)), Second Edition (2000)** is a descriptive standard for archival records. It can be applied to units of description at any level from the collection (or fonds) to the individual item, and includes a related element:<br><br>• **3.3.3 Accruals**<br><br>Purpose: To inform the user of foreseen additions to the unit of description.<br><br>Rules: Indicate if accruals are expected. Where appropriate, give an estimate of their quantity and frequency.<br><br>ISAD(G) does not itself provide a machine-readable binding.<br><br>The **Encoded Archival Description (EAD)** DTD is a standard for encoding archival finding aids using SGML or XML. It includes an XML element:<br><br>• **<accruals> Accruals**<br><br>Information about anticipated additions to the materials being described. Can indicate quantity and frequency. Can also be used to indicate that no additions are expected.<br><br>This is an XML element, not an RDF property. |

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| **Impact on applications** | If existing DC applications for collection-level description capture this data, they probably do so as part of the value of a `dc:description` element. Strictly speaking this information is probably not part of "an account of the content of the resource", and the use of `dc:description` in this way does not conform to the semantics of that property - and for this reason the proposal is for an element rather than an element refinement of `dc:description`.<br><br>The introduction of a distinct property allows the metadata creator to represent this information separately from the description of the scope and content of the collection. As the property is not proposed as a refinement of one of the 15 DC elements available in the "Simple DC" application profile, the information represented by this proposed property will be lost during "dumb-down" to "Simple DC". |
| **About the proposers** | The term is proposed by the Dublin Core Collection Description Working Group. One of the primary aims of the WG is the development of a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection as a resource, rather than the description of the individual items that make up that collection.<br><br>Records of the activity of the WG are available in the mailing list archives.<br><br>The current draft of the Collection Description Application Profile is available at `http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/` |

**Changes made in this version**

- Add introductory section and extend "why needed" entry.

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

| | |
|---|---|
| **Title:** | **Dublin Core Collection Description Proposed Term : Accrual Periodicity** |
| **Creator:** | Dublin Core Collection Description Working Group |
| **Date Issued:** | 2004-08-18 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/2004-08-18/ |
| **Replaces:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/2004-07-30/ |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document presents a proposal from the Dublin Core Collection Description Working Group for a new domain-specific element, accrualPeriodicity. |

## Introduction

The Dublin Core Collection Description Working Group is developing a a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection itself as a resource, rather than the description of each of the individual items that make up that collection. The work adopts a broad definition of a collection and is seeking to develop a schema which is applicable to a wide range of collections.

One of the requirements is to provide information about whether and how items are added to a collection. Such information can provide indications of the significance and the currency of a collection. Three distinct but related categories of information have been identified:

- the policy governing the addition of items to a collection
- the method by which items are added to a collection
- the frequency with which items are added to a collection

While these attributes are related, they are sufficiently distinct to be represented using three separate properties that can be used to make distinct statements about the collection.

No existing properties in the DCMI vocabularies support the capture of this information. It is not covered by dc:description since this information deals with the process of adding items, rather than with the content of the collection (or of the items within the collection.

## Accrual Periodicity

This property allows statements to be made about how frequently items are added to the collection.

This property supports searches of the form

Find collections that have an Accrual Periodicity corresponding to a specified value (e.g. Annual)

It also allows a user to obtain a value for Accrual Periodicity for a known collection, or to compare values for collections that have been discovered according to some other criteria.

Furthermore, the use of a vocabulary encoding scheme provides a list of unambiguous values for the property, and supports the construction of precise operations on metadata using this property. The property could be used with other encoding schemes or with free text values.

**Proposal**

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|---|---|
| **Name** | **accrualPeriodicity** |
| **Label** | Accrual Periodicity |
| **Definition** | The frequency with which items are added to a collection. |
| **Comment** | Recommended best practice is to use a value from the DCCD Accrual Periodicity encoding scheme. |
| **Examples** | The Accrual Periodicity for a serial:<br><br>Monthly [Encoding scheme = (Proposed) DCCD Accrual Periodicity]<br><br>The Accrual Periodicity for a special collection to which items are added at unpredictable intervals:<br><br>Completely irregular [Encoding scheme = (Proposed) DCCD Accrual Periodicity]<br><br>The Accrual Periodicity for a catalogue for which new metadata records are being added continuously:<br><br>Continuously updated [Encoding scheme = (Proposed) DCCD Accrual Periodicity] |
| **Type of term** | Element |
| **Term qualified** | [n/a] |
| **Why needed** | Information about the frequency with which items are being added to a collection helps a user to *find* a collection. Specifically this property will support searches of the form:<br><br>Which collections have Accrual Periodicity of "Monthly"?<br><br>Which Accrual Periodicities are in use for collections with Accrual Method of "License"?<br><br>etc<br><br>Perhaps more importantly, it allows a user to *select* from amongst a number of candidate collections, and/or to *compare* this attribute of collections that are otherwise similar.<br><br>It also helps a user to *interpret* a collection that they have found or |

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| | selected by some other criteria. |
| **Working Group support** | See the mailing list archives of the WG, especially Jul 2004. |
| **Proposed status** | Conforming |
| **Related DCMI terms** | [n/a] |
| **Related non-DCMI terms** | (Proposed encoding scheme) DCCDAccrualPeriodicity<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/<br><br>(Proposed element) accrualMethod<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/<br><br>(Proposed element) accrualPolicy<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/<br><br>The **International Standard for Archival Description (ISAD(G)), Second Edition (2000)** is a descriptive standard for archival records. It can be applied to units of description at any level from the collection (or fonds) to the individual item, and includes a related element:<br><br>• **3.3.3 Accruals**<br><br>Purpose: To inform the user of foreseen additions to the unit of description.<br><br>Rules: Indicate if accruals are expected. Where appropriate, give an estimate of their quantity and frequency.<br><br>ISAD(G) does not itself provide a machine-readable binding.<br><br>The **Encoded Archival Description (EAD)** DTD is a standard for encoding archival finding aids using SGML or XML. It includes an XML element:<br><br>• **<accruals> Accruals**<br><br>Information about anticipated additions to the materials being described. Can indicate quantity and frequency. Can also be used to indicate that no additions are expected.<br><br>This is an XML element, not an RDF property. |

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| **Impact on applications** | If existing DC applications for collection-level description capture this data, they probably do so as part of the value of a `dc:description` element. Strictly speaking this information is probably not part of "an account of the content of the resource", and the use of `dc:description` in this way does not conform to the semantics of that property - and for this reason the proposal is for an element rather than an element refinement of `dc:description`.<br><br>The introduction of a distinct property allows the metadata creator to represent this information separately from the description of the scope and content of the collection. As the property is not proposed as a refinement of one of the 15 DC elements available in the "Simple DC" application profile, the information represented by this proposed property will be lost during "dumb-down" to "Simple DC". |
| **About the proposers** | The term is proposed by the Dublin Core Collection Description Working Group. One of the primary aims of the WG is the development of a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection as a resource, rather than the description of the individual items that make up that collection.<br><br>Records of the activity of the WG are available in the mailing list archives.<br><br>The current draft of the Collection Description Application Profile is available at `http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/` |

**Changes made in this version**

- Add introductory section and extend "why needed" entry.

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

| | |
|---|---|
| **Title:** | **Dublin Core Collection Description Proposed Term : Accrual Policy** |
| **Creator:** | Dublin Core Collection Description Working Group |
| **Date Issued:** | 2004-08-18 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/2004-08-18/ |
| **Replaces:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/2004-07-30/ |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document presents a proposal from the Dublin Core Collection Description Working Group for a new collection-specific element, accrualPolicy. |

## Introduction

The Dublin Core Collection Description Working Group is developing a a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection itself as a resource, rather than the description of each of the individual items that make up that collection. The work adopts a broad definition of a collection and is seeking to develop a schema which is applicable to a wide range of collections.

One of the requirements is to provide information about whether and how items are added to a collection. Such information can provide indications of the significance and the currency of a collection. Three distinct but related categories of information have been identified:

- the policy governing the addition of items to a collection
- the means by which items are added to a collection
- the frequency with which items are added to a collection

While these attributes are related, they are sufficiently distinct to be represented using three separate properties that can be used to make distinct statements about the collection.

No existing properties in the DCMI vocabularies support the capture of this information. It is not covered by `dc:description` since this information deals with the process of adding items, rather than with the content of the collection (or of the items within the collection.

## Accrual Policy

This property allows statements to be made about the policy governing accruals to the collection, i.e. the approach the collector adopts to adding items to the collection.

This property supports searches of the form

Find collections that have an Accrual Policy corresponding to a specified value (e.g. active)

It also allows a user to obtain a value for Accrual Policy for a known collection, or to compare values for collections that have been discovered according to some other criteria.

Furthermore, the use of a vocabulary encoding scheme provides a list of unambiguous values for the property, and supports the construction of precise operations on metadata using this property. The property could be used with other encoding schemes or with free text values.

**Proposal**

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|---|---|
| **Name** | **accrualPolicy** |
| **Label** | Accrual Policy |
| **Definition** | The policy governing the addition of items to a collection. |
| **Comment** | Recommended best practice is to use a value from the DCCD Accrual Policy encoding scheme. |
| **Examples** | The Accrual Policy for a library subject collection for which new books and journals are bought:<br><br>Active [Encoding scheme = (Proposed) DCCD Accrual Policy]<br><br>The Accrual Policy for a special collection to which items are added only of they are donated or deposited by an external agent:<br><br>Passive [Encoding scheme = (Proposed) DCCD Accrual Policy] |
| **Type of term** | Element |
| **Term qualified** | [n/a] |
| **Why needed** | Information about the conditions under which items are being added to a collection helps a user to *find* a collection. Specifically this property will support searches of the form:<br><br>Which collections have Accrual Policy of "Closed"?<br><br>Which Accrual Methods are in use for collections with Accrual Policy of "Active"?<br><br>etc<br><br>Perhaps more importantly, it allows a user to *select* from amongst a number of candidate collections, and/or to *compare* this attribute of collections that are otherwise similar.<br><br>It also helps a user to *interpret* a collection that they have found or selected by some other criteria. |

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| **Working Group support** | See the mailing list archives of the WG, especially Jul 2004. |
| **Proposed status** | Conforming |
| **Related DCMI terms** | [n/a] |
| **Related non-DCMI terms** | (Proposed encoding scheme) DCCDAccrualPolicy<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/<br><br>(Proposed element) accrualPeriodicity<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/<br><br>(Proposed element) accrualMethod<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/<br><br>The **International Standard for Archival Description (ISAD(G)), Second Edition (2000)** is a descriptive standard for archival records. It can be applied to units of description at any level from the collection (or fonds) to the individual item, and includes a related element:<br><br>• **3.3.3 Accruals**<br><br>Purpose: To inform the user of foreseen additions to the unit of description.<br><br>Rules: Indicate if accruals are expected. Where appropriate, give an estimate of their quantity and frequency.<br><br>ISAD(G) does not itself provide a machine-readable binding.<br><br>The **Encoded Archival Description (EAD)** DTD is a standard for encoding archival finding aids using SGML or XML. It includes an XML element:<br><br>• **<accruals> Accruals**<br><br>Information about anticipated additions to the materials being described. Can indicate quantity and frequency. Can also be used to indicate that no additions are expected.<br><br>This is an XML element, not an RDF property. |

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| **Impact on applications** | If existing DC applications for collection-level description capture this data, they probably do so as part of the value of a dc:description element. Strictly speaking this information is probably not part of "an account of the content of the resource", and the use of dc:description in this way does not conform to the semantics of that property - and for this reason the proposal is for an element rather than an element refinement of dc:description.<br><br>The introduction of a distinct property allows the metadata creator to represent this information separately from the description of the scope and content of the collection. As the property is not proposed as a refinement of one of the 15 DC elements available in the "Simple DC" application profile, the information represented by this proposed property will be lost during "dumb-down" to "Simple DC". |
| **About the proposers** | The term is proposed by the Dublin Core Collection Description Working Group. One of the primary aims of the WG is the development of a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection as a resource, rather than the description of the individual items that make up that collection.<br><br>Records of the activity of the WG are available in the mailing list archives.<br><br>The current draft of the Collection Description Application Profile is available at http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/ |

**Changes made in this version**

- Add introductory section and extend "why needed" entry.

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

| | |
|---|---|
| **Title:** | **Dublin Core Collection Description Proposed Term : DCCDAccrualMethod** |
| **Creator:** | Dublin Core Collection Description Working Group |
| **Date Issued:** | 2004-07-30 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/2004-07-30/ |
| **Replaces:** | Not applicable |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document presents a proposal from the Dublin Core Collection Description Working Group for a new encoding scheme, DCCDAccrualMethod. |

**Proposal**

| | | |
|---|---|---|
| **Name** | **DCCDAccrualMethod** | |
| **Label** | DCCD Accrual Method | |
| **Definition** | Methods by which items are added to a collection. | |
| **Values** | Deposit | The permanent addition of items to the collection, where the transfer of ownership is conditional on certain requirements or restrictions, but without financial payment or reciprocal transfer of items. |
| | Donation | The permanent addition of items to the collection through the transfer of ownership, without financial payment. |
| | Purchase | The permanent addition of items to the collection through the transfer of ownership, accompanied by one or more financial payments. |
| | Loan | The temporary addition of items to the collection with no transfer of ownership, without financial payment. |
| | License | The temporary addition of items to the collection with no transfer of ownership, accompanied by one or more financial payments. |

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| | ItemCreation The permanent addition of items to the collection as a result of item creation by the owner of the collection. |
| **Type of term** | Vocabulary Encoding Scheme |
| **Term qualified** | (Proposed element) accrualMethod See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/ |
| **Why needed** | This encoding scheme allows the unambiguous specification of values for the proposed element accrualMethod, which in turn supports precise searching. |
| **Working Group support** | See the mailing list archives of the WG, especially Jul 2004. |
| **Proposed status** | Registered |
| **Related DCMI terms** | [n/a] |
| **Related non-DCMI terms** | (Proposed element) accrualMethod<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/ |
| **About the proposers** | The term is proposed by the Dublin Core Collection Description Working Group. One of the primary aims of the WG is the development of a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection as a resource, rather than the description of the individual items that make up that collection.<br><br>Records of the activity of the WG are available in the mailing list archives.<br><br>The current draft of the Collection Description Application Profile is available at http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/ |

**Changes made in this version**

- Initial version.

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

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|---|---|
| **Title:** | **Dublin Core Collection Description Proposed Term : DCCDAccrualPeriodicity** |
| **Creator:** | Dublin Core Collection Description Working Group |
| **Date Issued:** | 2004-08-18 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/2004-08-18/ |
| **Replaces:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/2004-07-30/ |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document presents a proposal from the Dublin Core Collection Description Working Group for a new encoding scheme, DCCDAccrualPeriodicity. |

**Proposal**

| | |
|---|---|
| **Name** | **DCCDAccrualPeriodicity** |
| **Label** | DCCD Accrual Periodicity |
| **Definition** | Frequencies with which items are added to a collection. |
| **Values** | Annual<br>Bimonthly<br>Semiweekly<br>Daily<br>Biweekly<br>Semiannual |

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| | Biennial<br>Triennial<br>Three times a week<br>Three times a month<br>Continuously updated<br>Monthly<br>Quarterly<br>Semimonthly<br>Three times a year<br>Weekly<br>Completely irregular |
| **Type of term** | Vocabulary Encoding Scheme |
| **Term qualified** | (Proposed element) accrualPeriodicity See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/ |
| **Why needed** | This encoding scheme allows the unambiguous specification of values for the proposed element accrualPeriodicity, which in turn supports precise searching. |
| **Working Group support** | See the mailing list archives of the WG, especially Jul 2004. |
| **Proposed status** | Registered |
| **Related DCMI terms** | This is the same set of values as used in MARC21. See *MARC 21 Concise Holdings: Caption and Pattern Fields (853-855)* (subfield $w Frequency - Codes used for frequencies that have a fundamental periodicity).<br><br>However, there is no evidence that MARC has issued URIrefs to refer either to the scheme as a unit or to the individual values within the scheme. |

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| **Related non-DCMI terms** | (Proposed element) accrualPeriodicity<br>See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/ |
| **About the proposers** | The term is proposed by the Dublin Core Collection Description Working Group. One of the primary aims of the WG is the development of a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection as a resource, rather than the description of the individual items that make up that collection.<br><br>Records of the activity of the WG are available in the mailing list archives.<br><br>The current draft of the Collection Description Application Profile is available at http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/ |

**Changes made in this version**

- Added reference to MARC 21 frequency codes.

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

| | |
|---|---|
| **Title:** | **Dublin Core Collection Description Proposed Term : DCCDAccrualPolicy** |
| **Creator:** | Dublin Core Collection Description Working Group |
| **Date Issued:** | 2004-07-30 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/2004-07-30/ |
| **Replaces:** | Not applicable |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/ |
| **Status of Document:** | This is a DCMI Working Draft. |
| **Description of Document:** | This document presents a proposal from the Dublin Core Collection Description Working Group for a new encoding scheme, DCCDAccrualPolicy. |

**Proposal**

| | |
|---|---|
| **Name** | **DCCDAccrualPolicy** |
| **Label** | DCCD Accrual Policy |
| **Definition** | Policies governing the addition of items to a collection. |
| **Values** | Closed A policy that items are no longer added to the collection.<br>Passive A policy that items are added to the collection only in response to the initiative of an external agent.<br>Active A policy that items are actively sought for addition to the collection.<br>Partial A policy that items are actively sought for addition to a specific part of the collection. |
| **Type of term** | Vocabulary Encoding Scheme |
| **Term qualified** | (Proposed element) accrualPolicy See http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/ |

| | |
|---|---|
| **Why needed** | This encoding scheme allows the unambiguous specification of values for the proposed element `accrualPolicy`, which in turn supports precise searching. |
| **Working Group support** | See the mailing list archives of the WG, especially Jul 2004. |
| **Proposed status** | Registered |
| **Related DCMI terms** | [n/a] |
| **Related non-DCMI terms** | (Proposed element) `accrualPolicy`<br>See `http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/` |
| **About the proposers** | The term is proposed by the Dublin Core Collection Description Working Group. One of the primary aims of the WG is the development of a Dublin Core Application Profile (DCAP) for collection-level description, i.e. for the description of a collection as a resource, rather than the description of the individual items that make up that collection.<br><br>Records of the activity of the WG are available in the mailing list archives.<br><br>The current draft of the Collection Description Application Profile is available at `http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/` |

### Changes made in this version

- Initial version.

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

Topic: MARC Relator terms as sub-properties of dc:contributor
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-relators/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Source: e:/work/dc-issues/terms-relators/index.txt

Shepherd: Rebecca

In Bath [1], there was broad agreement that the full list of relator codes extends beyond the the semantic scope of "dc:contributor" per se. There was agreement that a refinement of an element (sub-property) must be a sub-property of that property in every case -- e.g., "abstract" must always be a kind of "description". We agreed that the challenge is to come up with final list of properties from the relator codes which are "contributors" in every instance.

This topic raises several related issues:

-- Deciding which Relator terms are valid refinements.

-- Guidelines for using Agent Roles in Dublin Core -- a draft prepared by Diane and Rebecca [2].

-- The mechanics of declaring machine-processably that the selected Relator terms are subPropertyOf dc:contributor.

-- The mechanics whereby DCMI would endorse, acknowledge, or disseminate the Library of Congress assertions.

-- Articulating assumptions and expectations regarding the declaration and maintenance of the assertions.

It was recognized that DCMI needs to better understand the relationship between DCMI and LC in terms of namespace. Does LC have a namespace policy with respect to MARC Relators, and is that policy compatible with DCMI's own policy (e.g., with regard to the persistence and semantic stability of identified entities)?

There was general agreement that DCMI need not be interested in the list as a whole; rather, more specifically it needed to focus on the assertions made regarding the sub-property relationship between specific MARC Relator terms and DCMI terms. It was felt there was a need to understand how LC adds terms to the namespace and by what process an assertion could be made relating that LC term to a DCMI term.

It was pointed out that there is no intrinsic harm to "interoperability" if some MARC Relator terms have no relationship to dc:contributor -- it simply means that those terms fall "outside the scope" of the DCMI core elements. For example:

| Original term | Dumb-Down | "Simple DC" |
|---|---|---|
| marcrel:degreeGrantor | marcrel:degreeGrantor | --- |
| marcrel:owner | marcrel:owner | --- |
| marcrel:illustrator | dc:contributor | dc:contributor |

On 2004-09-29, Rebecca posted a revision of the MARC relators list in RDF at:
http://lcweb2.loc.gov:8081/cocoon/relators/relators.xml

1. Evaluated each term to see if it truly refined

dc:contributor all of the time. Took out the subproperty assertion if it didn't.

2. Made the token (MARC code at the end of the URI) upper case. I decided to keep the code rather than term as part of the URI because 1) it could be more persistent than the term; 2) the terms are sometimes rather long winded (e.g. "Author in quotations or text extracts"); 3) the codes ARE tokens for the terms.

3. Added additional statements: "depicted" is subproperty of dc:subject "distributor" is subproperty of dc:publisher "publisher" is NOT a subproperty of contributor (because it does not always contribute to the content of the resource)

At some point in the near future, before we make it publicly available we need to settle on the issue of what the persistent URI will be. We are probably going to use info: URIs instead of http: URIs. This is part of a larger effort that we need to coordinate with.

We are generating this on the fly from the master relators list. As we add to that list we will need to determine whether the new term is indeed a refinement of dc:contributor. Default is that it isn't (since most of these seem to have already been defined).

In Shanghai, we are going to review a version of the above which is limited to the subset of the relators list that are refinements of dc:contributor (included in the packet):

http://lcweb2.loc.gov:8081/cocoon/relators/relators.html

As you'll see we've formulated to look like other dcterms. I've used today's date as date issued. I've also included those roles that refine or are equivalent to other DC elements.

So we can review this list to see if everyone agrees that these roles are subproperties of dc:contributor and people can also use the full list to see what I've left off.

In Shanghai, we also need to review the guidelines drawn up by Diane and Rebecca on using the MARC Relator terms (also included in the packet as:

http://www.bi.fhg.de/People/Thomas.Baker/public/Agent-Roles-Guidelines5.txt

I would say we would probably need an hour and a half (at least) for this discussion. I will shortly send Tom the guidelines, which will probably be another half hour or so. So we'll say 2 hours for this topic all together.

On 2004-10-01, Pete posted a note (see ACTION 5 below) what element refinement/subproperty means:

[I have] tried to draw out some thoughts about how to decide when to assert a refinement relationship and when not to:

http://www.ukoln.ac.uk/metadata/dcmi/dc-elem-refine/

It goes a bit beyond what DCMI actually does in practice (e.g. I've discussed what it means if a property is the subject of multiple refinement relations), but I think that we do need to think about those cases if we are using terms from other vocabularies in DC metadata descriptions, as it's quite possible that the owners of those vocabularies declare

multiple refinement relations (and possibly to DCMI terms!), even if DCMI itself has the approach of not doing so.

Appendix: List of old actions (to check)

ACTION 1 (Andy and Rebecca): To create one document with definitions and sub-property assertions for the relator terms and circulate it to the UB list.

ACTION 2 (everyone): Each UB member will read through the list prepared by Andy and Rebecca and sign-off on the sub-property assertions.

ACTION 3 (everyone; Tom): DCMI will need to make some form of endorsement of the sub-property assertions. For example, the UB should assert that the Relator terms conform to the DCMI model and that it agrees with the specific assertions. Exactly where and how these assertions/endorsements should be made remains to be clarified.

ACTION 4 (Tom and Rebecca): To develop a document defining the etiquette for the relationship between DCMI and LC with regard to maintaining the assertions. This document should describe any relevant policies on the part of LC (analogous to the DCMI Namespace Policy).

ACTION 5 (Andy and Pete): To formulate a FAQ-size answer on what constitutes a valid element refinement.

ACTION 6 (Andrew): There was also a decision in Bath -- the text of which was to be finalized by Andrew -- that proposals for DCMI "role" terms (i.e., any property that relates a resource to an agent) would be accepted only for terms that met the requirements for "recommended" status. For term proposals meeting the requirements for "conforming" (and not those of "recommended") it would be recommended that these either be submitted to LC for inclusion in the MARC Relator terms or that an independent namespace be created. Diane and Stuart were to review the process document for any revisions caused by this decision.

ACTION 7 (Rebecca): Andy and Andrew prefer using terms rather than numeric codes for the names (and hence URIs). LoC can use owl:samePropertyAs to designate the code (or label, see below). URIs of Relators should also use same upper/lowercase conventions as DC terms; this will not affect how the codes are depicted in LoC's database -- they can use "cre" as a label or have two labels -- one a numeric code and one a human-language-like string.

ACTION 8 (Diane and Rebecca): To revise the "Guidelines for using Agent Roles in Dublin Core" as per the discussion above and prepare as an appendix to Usage Guide [2]. The guidance document will need to include process information and more information on how the refinements will dumb down to simple DC. It will also include some examples. Diane will revise the current draft and send to Rebecca.

[1] http://dublincore.org/usage/meetings/2004/03/ISSUES/terms-relators/
[2] http://dublincore.org/usage/meetings/2004/03/Agent-Roles-Guidelines2.txt

---
Date: Fri, 17 Sep 2004 15:54:49 -0400
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: relators
To: DC-USAGE@JISCMAIL.AC.UK
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I am getting closer to getting the next draft of the relators out, but would like to run a few questions by the group.

1. At one point we said that it is better to consider Creator and Publisher refinements of Contributor, but there was lots of disagreement about endorsing that so that Creator and Contributor are deprecated. I want to confirm that we would consider Publisher a refinement of Contributor in terms of putting in the statement in the RDF that Publisher is a subproperty of dc:contributor. I also feel that if that is the case we should also consider Distributor a subproperty of contributor and also as a subproperty of publisher.

Alternative is not to make the assertion about either of them being a subproperty of contributor.

2. I am going through the list of terms and looking at what Andy did last Feb. or March (just before our last meeting), where he took out some of the assertions. There are a few ways to do this. My feeling is that it would be better to take a broad view of the definition of contributor and only take out the subproperty assertion out where it clearly is not appropriate. Another approach is try to pare down the list to a more core set. We've discussed both of these approaches for awhile and have gone back and forth on them. My feeling from our last meeting is that we prefer to do the former, but want to see if anything had changed.

Any thoughts?

Rebecca

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Date: Fri, 17 Sep 2004 21:17:15 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: relators
To: DC-USAGE@JISCMAIL.AC.UK
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On Fri, 17 Sep 2004, Rebecca S. Guenther wrote:

> 1. At one point we said that it is better to consider Creator and
> Publisher refinements of Contributor, but there was lots of disagreement
> about endorsing that so that Creator and Contributor are deprecated. I
> want to confirm that we would consider Publisher a refinement of
> Contributor in terms of putting in the statement in the RDF that Publisher
> is a subproperty of dc:contributor. I also feel that if that is the case
> we should also consider Distributor a subproperty of contributor and also
> as a subproperty of publisher.

I'm not sure how I've argued this in the past (probably both ways! :-) ) but looking at the definitions now it seems to me that

- when it is the case that a person is a dc:creator of a resource then, by definition, they are also a dc:contributor to the resource. This is always true - therefore it is safe to make the assertion that dc:creator is a sub-property of dc:contributor.

- when it is the case that a person is a dc:publisher of something, it is sometimes also true that they are a dc:contributor to it. But this is not always true - therefore it is not safe to make dc:publisher a sub-property of dc:contributor

> Alternative is not to make the assertion about either of them being a
> subproperty of contributor.
>
> 2. I am going through the list of terms and looking at what Andy did last
> Feb. or March (just before our last meeting), where he took out some of
> the assertions. There are a few ways to do this. My feeling is that it
> would be better to take a broad view of the definition of contributor and
> only take out the subproperty assertion out where it clearly is not
> appropriate.

I'm not sure what you mean by 'broad' here... but, as we've discussed in the past, if there are any cases (even just one case!) where the assertion that a given property is a sub-property of dc:contributor is *false*, then we must not make the assertion.

dc:publisher is a good example. There are cases where the 'entity responsible for making the resource available' is *not* also an 'entity responsible for making contributions to the content of the resource' (e.g. if you greate a digital photograph and then give it to me to put on my Web site, then I am the dc:publisher but *not* a dc:contributor) - therefore we can *not* make the assertion that dc:publisher is a refinement of dc:contributor.

Andy

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Date: Tue, 21 Sep 2004 12:53:20 +0200
From: Thomas Baker <thomas.baker@bi.fhg.de>
To: A mailing list for the Dublin Core Metadata Initiative's Usage Board <DC-USAGE@JISCMAIL.AC.UK>
Subject: Re: relators

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On Fri, Sep 17, 2004 at 03:54:49PM -0400, Rebecca Guenther wrote:
> 2. I am going through the list of terms and looking at what Andy did last
> Feb. or March (just before our last meeting), where he took out some of
> the assertions.

I will include this latest exchange into the meeting packet.

I have updated
http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-relators/
to try to clarify how exactly we should proceed with this point over the coming week, then at the meeting in Shanghai.

The following actions (there are others) are particularly important:

1. ACTION (Andy and Rebecca): To create one document with definitions and sub-property assertions for the relator terms and circulate it to the UB list.

2. ACTION (everyone): Each UB member will read through the list prepared by Andy and Rebecca and sign-off on the sub-property assertions.

3. ACTION (everyone; Tom): DCMI will need to make some form of endorsement of the sub-property assertions. For example, the UB should assert that the Relator terms conform to the DCMI model and that it agrees with the specific assertions. Exactly where and how these assertions/endorsements should be made remains to be clarified.

4. ACTION (Tom and Rebecca): To develop a document defining the etiquette for the relationship between DCMI and LC with regard to maintaining the assertions. This document should describe any relevant policies on the part of LC (analogous to the DCMI Namespace Policy).

I would suggest

-- that Rebecca make the full list available by next Friday,
   if possible, for inclusion in the meeting packet (Point 1);

-- that we all read through the list in preparation for the
   meeting and come prepared to "sign off" on the selection
   (Point 2);

-- that we then discuss the form that endorsement assertions
   by DCMI should take (Point 3);

-- only after which would Tom and Rebecca be in a position
   to propose an understanding between DCMI and LC regarding
   maintenance (Point 4).

Tom

# Refinements of dc:contributor (roles)

**Term Name: actor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ACT |
| Label: | Actor |
| Definition: | A person or organization who principally exhibits acting skills in a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Actor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: adapter**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ADP |
| Label: | Adapter |
| Definition: | A person or organization who 1) reworks a musical composition, usually for a different medium, or 2) rewrites novels or stories for motion pictures or other audiovisual medium. |
| Comment: | Typically, the name of the Adapter should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: animator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ANM |
| Label: | Animator |
| Definition: | A person or organization who draws the two-dimensional figures, manipulates the three dimensional objects and/or also programs the computer to move objects and images for the purpose of animated film processing. Animation cameras, stands, celluloid screens, transparencies and inks are some of the tools of the animator. |
| Comment: | Typically, the name of the Animator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: annotator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ANN |
| Label: | Annotator |
| Definition: | A person who writes manuscript annotations on a printed item. |
| Comment: | Typically, the name of the Annotator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: architect**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ARC |
| Label: | Architect |
| Definition: | A person or organization who designs structures or oversees their construction. |
| Comment: | Typically, the name of the Architect should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: arranger**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ARR |
| Label: | Arranger |
| Definition: | A person or organization who transcribes a musical composition, usually for a different medium from that of the original; in an arrangement the musical substance remains essentially unchanged. |
| Comment: | Typically, the name of the Arranger should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: artist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ART |
| Label: | Artist |
| Definition: | A person (e.g., a painter) or organization who conceives, and perhaps also implements, an original graphic design or work of art, if specific codes (e.g., [egr], [etr]) are not desired. For book illustrators, prefer Illustrator [ill]. |
| Comment: | Used for Graphic technician |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: author**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/AUT |
| Label: | Author |
| Definition: | A person or organization chiefly responsible for the intellectual or artistic content of a work, usually printed text. This term may also be used when more than one person or body bears such responsibility. |
| Comment: | Used for Joint author |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: author in quotations or text extracts**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/AQT |
| Label: | Author in quotations or text extracts |
| Definition: | A person or organization whose work is largely quoted or extracted in works to which he or she did not contribute directly. Such quotations are found particularly in exhibition catalogs, collections of photographs, etc. |
| Comment: | Typically, the name of the Author in quotations or text extracts should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: author of afterword, colophon, etc.**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/AFT |
| Label: | Author of afterword, colophon, etc. |
| Definition: | A person or organization responsible for an afterword, postface, colophon, etc. but who is not the chief author of a work. |
| Comment: | Typically, the name of the Author of afterword, colophon, etc. should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: author of dialog**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/AUD |
| Label: | Author of dialog |
| Definition: | A person or organization responsible for the dialog or spoken commentary for a screenplay or sound recording. |
| Comment: | Typically, the name of the Author of dialog should be used to indicate the agent. |

| | |
|---|---|
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: author of introduction, etc.**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/AUI |
| Label: | Author of introduction, etc. |
| Definition: | A person or organization responsible for an introduction, preface, foreword, or other critical introductory matter, but who is not the chief author. |
| Comment: | Typically, the name of the Author of introduction, etc. should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: author of screenplay, etc.**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/AUS |
| Label: | Author of screenplay, etc. |
| Definition: | A person or organization responsible for a motion picture screenplay, dialog, spoken commentary, etc. |
| Comment: | Typically, the name of the Author of screenplay, etc. should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: bibliographic antecedent**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ANT |
| Label: | Bibliographic antecedent |
| Definition: | A person or organization responsible for a work upon which the work represented by the catalog record is based. This may be appropriate for adaptations, sequels, continuations, indexes, etc. |
| Comment: | Typically, the name of the Bibliographic antecedent should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: calligrapher**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CLL |
| Label: | Calligrapher |
| Definition: | A person or organization who writes in an artistic hand, usually as a copyist and or engrosser. |
| Comment: | Typically, the name of the Calligrapher should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: cartographer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CTG |
| Label: | Cartographer |
| Definition: | A person or organization responsible for the creation of maps and other cartographic materials. |
| Comment: | Typically, the name of the Cartographer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: choreographer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CHR |
| Label: | Choreographer |

| | |
|---|---|
| Definition: | A person or organization who composes or arranges dances or other movements (e.g., "master of swords") for a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Choreographer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: cinematographer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CNG |
| Label: | Cinematographer |
| Definition: | A person or organization who is in charge of the images captured for a motion picture film. The cinematographer works under the supervision of a director, and may also be referred to as director of photography. Do not confuse with videographer. |
| Comment: | Typically, the name of the Cinematographer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: collaborator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CLB |
| Label: | Collaborator |
| Definition: | A person or organization that takes a limited part in the elaboration of a work of another person or organization that brings complements (e.g., appendices, notes) to the work. |
| Comment: | Typically, the name of the Collaborator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: collotyper**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CLT |
| Label: | Collotyper |
| Definition: | A person or organization responsible for the production of photographic prints from film or other colloid that has ink-receptive and ink-repellent surfaces. |
| Comment: | Typically, the name of the Collotyper should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: commentator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CMM |
| Label: | Commentator |
| Definition: | A person or organization who provides interpretation, analysis, or a discussion of the subject matter on a recording, motion picture, or other audiovisual medium. |
| Comment: | Typically, the name of the Commentator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: commentator for written text**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CWT |
| Label: | Commentator for written text |
| Definition: | A person or organization responsible for the commentary or explanatory notes about a text. For the writer of manuscript annotations in a printed book, use Annotator [ann]. |
| Comment: | Typically, the name of the Commentator for written text should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |

| | |
|---|---|
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: compiler**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/COM |
| Label: | Compiler |
| Definition: | A person or organization who produces a work or publication by selecting and putting together material from the works of various persons or bodies. |
| Comment: | Typically, the name of the Compiler should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: composer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CMP |
| Label: | Composer |
| Definition: | A person or organization who creates a musical work, usually a piece of music in manuscript or printed form. |
| Comment: | Typically, the name of the Composer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: conceptor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CCP |
| Label: | Conceptor |
| Definition: | A person or organization responsible for the original idea on which a work is based, this includes the scientific author of an audio-visual item and the conceptor of an advertisement. |
| Comment: | Typically, the name of the Conceptor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: conductor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CND |
| Label: | Conductor |
| Definition: | A person who directs a performing group (orchestra, chorus, opera, etc.). |
| Comment: | Typically, the name of the Conductor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: consultant**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CSL |
| Label: | Consultant |
| Definition: | A person or organization called upon for professional advice or services in a specialized field of knowledge or training. |
| Comment: | Typically, the name of the Consultant should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: consultant to a project**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CSP |
| Label: | Consultant to a project |
| Definition: | A person or organization engaged specifically to provide an intellectual overview of a strategic or operational task and by analysis, specification, or instruction, to create or propose a cost-effective course of action or solution. |

| | |
|---|---|
| Comment: | Typically, the name of the Consultant to a project should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: contractor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CTR |
| Label: | Contractor |
| Definition: | A person or organization who enters into a contract with another person or organization to perform a specific task. |
| Comment: | Typically, the name of the Contractor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: correspondent**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CRP |
| Label: | Correspondent |
| Definition: | A person or organization who was either the writer or recipient of a letter or other communication. |
| Comment: | Typically, the name of the Correspondent should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: costume designer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CST |
| Label: | Costume designer |
| Definition: | A person or organization who designs or makes costumes, fixes hair, etc., for a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Costume designer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: creator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CRE |
| Label: | Creator |
| Definition: | A person or organization responsible for the intellectual or artistic content of a work. |
| Comment: | Typically, the name of the Creator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Equivalent: | http://purl.org/dc/elements/1.1/creator |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: curator of an exhibition**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CUR |
| Label: | Curator of an exhibition |
| Definition: | A person or organization responsible for conceiving and organizing an exhibition. |
| Comment: | Typically, the name of the Curator of an exhibition should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: dancer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DNC |

| | |
|---|---|
| Label: | Dancer |
| Definition: | A person or organization who principally exhibits dancing skills in a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Dancer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: delineator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DLN |
| Label: | Delineator |
| Definition: | A person or organization executing technical drawings from others' designs. |
| Comment: | Typically, the name of the Delineator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: designer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DSR |
| Label: | Designer |
| Definition: | A person or organization responsible for the design if more specific codes (e.g., [bkd], [tyd]) are not desired. |
| Comment: | Typically, the name of the Designer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: director**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DRT |
| Label: | Director |
| Definition: | A person or organization who is responsible for the general management of a work or who supervises the production of a performance for stage, screen, or sound recording. |
| Comment: | Typically, the name of the Director should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: dissertant**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DIS |
| Label: | Dissertant |
| Definition: | A person who presents a thesis for a university or higher-level educational degree. |
| Comment: | Typically, the name of the Dissertant should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: draftsman**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DRM |
| Label: | Draftsman |
| Definition: | A person or organization who prepares artistic or technical drawings. |
| Comment: | Used for Technical draftsman |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: editor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/EDT |
| Label: | Editor |
| Definition: | A person or organization 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. |
| Comment: | Typically, the name of the Editor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: engineer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ENG |
| Label: | Engineer |
| Definition: | A person or organization that is responsible for technical planning and design, particularly with construction. |
| Comment: | Typically, the name of the Engineer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: engraver**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/EGR |
| Label: | Engraver |
| Definition: | A person or organization who cuts letters, figures, etc. on a surface, such as a wooden or metal plate, for printing. |
| Comment: | Typically, the name of the Engraver should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: etcher**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ETR |
| Label: | Etcher |
| Definition: | A person or organization who produces text or images for printing by subjecting metal, glass, or some other surface to acid or the corrosive action of some other substance. |
| Comment: | Typically, the name of the Etcher should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: facsimilist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/FAC |
| Label: | Facsimilist |
| Definition: | A person or organization that executed the facsimile. |
| Comment: | Used for Copier |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: film editor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/FLM |
| Label: | Film editor |
| Definition: | A person or organization who is an editor of a motion picture film. This term is used regardless of the medium upon which the motion picture is produced or manufactured (e.g., acetate film, video tape). |
| Comment: | Used for Motion picture editor |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |

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|---|---|
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: forger**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/FRG |
| Label: | Forger |
| Definition: | A person or organization who makes or imitates something of value or importance, especially with the intent to defraud. |
| Comment: | Used for Copier |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: host**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/HST |
| Label: | Host |
| Definition: | A person who is invited or regularly leads a program (often broadcast) that includes other guests, performers, etc. (e.g., talk show host). |
| Comment: | Typically, the name of the Host should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: illuminator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ILU |
| Label: | Illuminator |
| Definition: | A person or organization responsible for the decoration of a work (especially manuscript material) with precious metals or color, usually with elaborate designs and motifs. |
| Comment: | Typically, the name of the Illuminator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: illustrator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ILL |
| Label: | Illustrator |
| Definition: | A person or organization who conceives, and perhaps also implements, a design or illustration, usually to accompany a written text. |
| Comment: | Typically, the name of the Illustrator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: instrumentalist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ITR |
| Label: | Instrumentalist |
| Definition: | A person or organization who principally plays an instrument in a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Instrumentalist should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: interviewee**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/IVE |
| Label: | Interviewee |

| | |
|---|---|
| Definition: | A person or organization who is interviewed at a consultation or meeting, usually by a reporter, pollster, or some other information gathering agent. |
| Comment: | Typically, the name of the Interviewee should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: interviewer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/IVR |
| Label: | Interviewer |
| Definition: | A person or organization who acts as a reporter, pollster, or other information gathering agent in a consultation or meeting involving one or more individuals. |
| Comment: | Typically, the name of the Interviewer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: inventor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/INV |
| Label: | Inventor |
| Definition: | A person or organization who first produces a particular useful item, or develops a new process for obtaining a known item or result. |
| Comment: | Typically, the name of the Inventor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: landscape architect**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/LSA |
| Label: | Landscape architect |
| Definition: | A person or organization whose work involves coordinating the arrangement of existing and proposed land features and structures. |
| Comment: | Typically, the name of the Landscape architect should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: librettist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/LBT |
| Label: | Librettist |
| Definition: | A person or organization who is a writer of the text of an opera, oratorio, etc. |
| Comment: | Typically, the name of the Librettist should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: lighting designer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/LGD |
| Label: | Lighting designer |
| Definition: | A person or organization who designs the lighting scheme for a theatrical presentation, entertainment, motion picture, etc. |
| Comment: | Typically, the name of the Lighting designer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |

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| Date Issued: | 2004-09-30 |

**Term Name: lithographer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/LTG |
| Label: | Lithographer |
| Definition: | A person or organization who prepares the stone or plate for lithographic printing, including a graphic artist creating a design directly on the surface from which printing will be done. |
| Comment: | Typically, the name of the Lithographer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: lyricist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/LYR |
| Label: | Lyricist |
| Definition: | A person or organization who is the a writer of the text of a song. |
| Comment: | Typically, the name of the Lyricist should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: manufacturer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/MFR |
| Label: | Manufacturer |
| Definition: | A person or organization that makes an artifactual work (an object made or modified by one or more persons). Examples of artifactual works include vases, cannons or pieces of furniture. |
| Comment: | Typically, the name of the Manufacturer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: metal-engraver**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/MTE |
| Label: | Metal-engraver |
| Definition: | A person or organization responsible for decorations, illustrations, letters, etc. cut on a metal surface for printing or decoration. |
| Comment: | Typically, the name of the Metal-engraver should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: moderator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/MOD |
| Label: | Moderator |
| Definition: | A person who leads a program (often broadcast) where topics are discussed, usually with participation of experts in fields related to the discussion. |
| Comment: | Typically, the name of the Moderator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: musician**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/MUS |
| Label: | Musician |
| Definition: | A person or organization who performs music or contributes to the musical content of a work when it is not possible or desirable to identify the function more precisely. |
| Comment: | Typically, the name of the Musician should be used to indicate the agent. |

| | |
|---|---|
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: narrator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/NRT |
| Label: | Narrator |
| Definition: | A person who is a speaker relating the particulars of an act, occurrence, or course of events. |
| Comment: | Typically, the name of the Narrator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: organizer of meeting**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ORM |
| Label: | Organizer of meeting |
| Definition: | A person or organization responsible for organizing a meeting for which an item is the report or proceedings. |
| Comment: | Typically, the name of the Organizer of meeting should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: originator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/ORG |
| Label: | Originator |
| Definition: | A person or organization performing the work, i.e., the name of a person or organization associated with the intellectual content of the work. This category does not include the publisher or personal affiliation, or sponsor except where it is also the corporate author. Includes a person designated in the work as investigator or principal investigator. |
| Comment: | Used for Principal investigator |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: performer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PRF |
| Label: | Performer |
| Definition: | a person or organization who exhibits musical or acting skills in a musical or dramatic presentation or entertainment, if specific codes for those functions ([act], [dnc], [itr], [voc], etc.) are not used. If specific codes are used, [prf] is used for a person whose principal skill is not known or specified. |
| Comment: | Typically, the name of the Performer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: photographer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PHT |
| Label: | Photographer |
| Definition: | A person or organization responsible for taking photographs, whether they are used in their original form or as reproductions. |
| Comment: | Typically, the name of the Photographer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: platemaker**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PLT |
| Label: | Platemaker |
| Definition: | A person or organization responsible for the production of plates, usually for the production of printed images and/or text. |
| Comment: | Typically, the name of the Platemaker should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: printmaker**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PRM |
| Label: | Printmaker |
| Definition: | A person or organization who makes a relief, intaglio, or planographic printing surface. |
| Comment: | Typically, the name of the Printmaker should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: producer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PRO |
| Label: | Producer |
| Definition: | A person or organization responsible for the making of a motion picture, including business aspects, management of the productions, and the commercial success of the work. |
| Comment: | Typically, the name of the Producer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: production personnel**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PRD |
| Label: | Production personnel |
| Definition: | A person or organization associated with the production (props, lighting, special effects, etc.) of a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Production personnel should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: programmer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PRG |
| Label: | Programmer |
| Definition: | A person or organization responsible for the creation and/or maintenance of computer program design documents, source code, and machine-executable digital files and supporting documentation. |
| Comment: | Typically, the name of the Programmer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: puppeteer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PPT |
| Label: | Puppeteer |
| Definition: | A person or organization who manipulates, controls, or directs puppets or marionettes in a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Puppeteer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |

| | |
|---|---|
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: recording engineer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RCE |
| Label: | Recording engineer |
| Definition: | A person or organization who supervises the technical aspects of a sound or video recording session. |
| Comment: | Typically, the name of the Recording engineer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: renderer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/REN |
| Label: | Renderer |
| Definition: | A person or organization who prepares drawings of architectural designs (i.e., renderings) in accurate, representational perspective to show what the project will look like when completed. |
| Comment: | Typically, the name of the Renderer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: reporter**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RPT |
| Label: | Reporter |
| Definition: | A person or organization who writes or presents reports of news or current events on air or in print. |
| Comment: | Typically, the name of the Reporter should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: research team head**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RTH |
| Label: | Research team head |
| Definition: | A person who directed or managed a research project. |
| Comment: | Typically, the name of the Research team head should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: research team member**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RTM |
| Label: | Research team member |
| Definition: | A person who participated in a research project but whose role did not involve direction or management of it. |
| Comment: | Typically, the name of the Research team member should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: researcher**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RES |
| Label: | Researcher |
| Definition: | A person or organization responsible for performing research. |
| Comment: | Used for Performer of research |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |

| | |
|---|---|
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: responsible party**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RPY |
| Label: | Responsible party |
| Definition: | A person or organization legally responsible for the content of the published material. |
| Comment: | Typically, the name of the Responsible party should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: restager**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/RSG |
| Label: | Restager |
| Definition: | A person or organization , other than the original choreographer or director, responsible for restaging a choreographic or dramatic work and who contributes minimal new content. |
| Comment: | Typically, the name of the Restager should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: reviewer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/REV |
| Label: | Reviewer |
| Definition: | A person or organization responsible for the review of a book, motion picture, performance, etc. |
| Comment: | Typically, the name of the Reviewer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: scenarist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SCE |
| Label: | Scenarist |
| Definition: | A person or organization who is the author of a motion picture screenplay. |
| Comment: | Typically, the name of the Scenarist should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: scientific advisor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SAD |
| Label: | Scientific advisor |
| Definition: | A person or organization who brings scientific, pedagogical, or historical competence to the conception and realization on a work, particularly in the case of audio-visual items. |
| Comment: | Typically, the name of the Scientific advisor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: scribe**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SCR |
| Label: | Scribe |
| Definition: | A person who is an amanuensis and for a writer of manuscripts proper. For a person who makes pen-facsimiles, use Facsimilist [fac]. |
| Comment: | Typically, the name of the Scribe should be used to indicate the agent. |

| | |
|---|---|
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: sculptor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SCL |
| Label: | Sculptor |
| Definition: | A person or organization who models or carves figures that are three-dimensional representations. |
| Comment: | Typically, the name of the Sculptor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: secretary**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SEC |
| Label: | Secretary |
| Definition: | A person or organization who is a recorder, redactor, or other person responsible for expressing the views of a organization. |
| Comment: | Typically, the name of the Secretary should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: set designer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/STD |
| Label: | Set designer |
| Definition: | A person or organization who translates the rough sketches of the art director into actual architectural structures for a theatrical presentation, entertainment, motion picture, etc. Set designers draw the detailed guides and specifications for building the set. |
| Comment: | Typically, the name of the Set designer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: singer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SNG |
| Label: | Singer |
| Definition: | A person or organization who uses his/her/their voice with or without instrumental accompaniment to produce music. A performance may or may not include actual words. |
| Comment: | Typically, the name of the Singer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: speaker**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SPK |
| Label: | Speaker |
| Definition: | A person who participates in a program (often broadcast) and makes a formalized contribution or presentation generally prepared in advance. |
| Comment: | Typically, the name of the Speaker should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: sponsor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SPN |
| Label: | Sponsor |
| Definition: | A person or organization that issued a contract or under the auspices of which a work has been written, printed, published, etc. |
| Comment: | Typically, the name of the Sponsor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: standards body**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/STN |
| Label: | Standards body |
| Definition: | An organization responsible for the development or enforcement of a standard. |
| Comment: | Typically, the name of the Standards body should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: storyteller**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/STL |
| Label: | Storyteller |
| Definition: | A person relaying a story with creative and/or theatrical interpretation. |
| Comment: | Typically, the name of the Storyteller should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: surveyor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/SRV |
| Label: | Surveyor |
| Definition: | A person or organization who does measurements of tracts of land, etc. to determine location, forms, and boundaries. |
| Comment: | Typically, the name of the Surveyor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: teacher**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/TCH |
| Label: | Teacher |
| Definition: | A person who gives instruction in an intellectual subject or demonstrates while teaching physical skills. |
| Comment: | Used for Instructor |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: transcriber**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/TRC |
| Label: | Transcriber |
| Definition: | A person who prepares a handwritten or typewritten copy from original material, including from dictated or orally recorded material. For makers of pen-facsimiles, use Facsimilist [fac]. |
| Comment: | Typically, the name of the Transcriber should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |

| | |
|---|---|
| Date Issued: | 2004-09-30 |

**Term Name: translator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/TRL |
| Label: | Translator |
| Definition: | A person or organization who renders a text from one language into another, or from an older form of a language into the modern form. |
| Comment: | Typically, the name of the Translator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: videographer**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/VDG |
| Label: | Videographer |
| Definition: | A person or organization in charge of a video production, e.g. the video recording of a stage production as opposed to a commercial motion picture. The videographer may be the camera operator or may supervise one or more camera operators. Do not confuse with cinematographer. |
| Comment: | Typically, the name of the Videographer should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: vocalist**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/VOC |
| Label: | Vocalist |
| Definition: | A person or organization who principally exhibits singing skills in a musical or dramatic presentation or entertainment. |
| Comment: | Typically, the name of the Vocalist should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: wood-engraver**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/WDE |
| Label: | Wood-engraver |
| Definition: | A person or organization who makes prints by cutting the image in relief on the end-grain of a wood block. |
| Comment: | Typically, the name of the Wood-engraver should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: woodcutter**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/WDC |
| Label: | Woodcutter |
| Definition: | A person or organization who makes prints by cutting the image in relief on the plank side of a wood block. |
| Comment: | Typically, the name of the Woodcutter should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: writer of accompanying material**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/WAM |
| Label: | Writer of accompanying material |
| Definition: | A person or organization who writes significant material which accompanies a sound recording or other audiovisual material. |
| Comment: | Typically, the name of the Writer of accompanying material should be used to indicate the agent. |

| | |
|---|---|
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

## Refinements of other DC elements

**Term Name: depicted**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DPC |
| Label: | Depicted |
| Definition: | A person or organization depicted or portrayed in a work, particularly in a work of art. |
| Comment: | Typically, the name of the Depicted should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/subject |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: distributor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/DST |
| Label: | Distributor |
| Definition: | A person or organization that has exclusive or shared marketing rights for an item. |
| Comment: | Typically, the name of the Distributor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/publisher |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

## Equivalents to DC elements

**Term Name: contributor**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CTB |
| Label: | Contributor |
| Definition: | A person or organization one whose work has been contributed to a larger work, such as an anthology, serial publication, or other compilation of individual works. Do not use if the sole function in relation to a work is as author, editor, compiler or translator. |
| Comment: | Typically, the name of the Contributor should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Equivalent: | http://purl.org/dc/elements/1.1/contributor |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

**Term Name: creator**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/CRE |
| Label: | Creator |
| Definition: | A person or organization responsible for the intellectual or artistic content of a work. |
| Comment: | Typically, the name of the Creator should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Refines: | http://purl.org/dc/elements/1.1/contributor |
| Equivalent: | http://purl.org/dc/elements/1.1/creator |
| Status: | recommended |

| | |
|---|---|
| Date Issued: | 2004-09-30 |

**Term Name: publisher**

| | |
|---|---|
| URI: | http://www.loc.gov/marc.relators/PBL |
| Label: | Publisher |
| Definition: | A person or organization that makes printed matter, often text, but also printed music, artwork, etc. available to the public. |
| Comment: | Typically, the name of the Publisher should be used to indicate the agent. |
| Type of Term: | element-refinement |
| Equivalent: | http://purl.org/dc/elements/1.1/publisher |
| Status: | recommended |
| Date Issued: | 2004-09-30 |

Guidelines for using Agent Roles in Dublin Core (Draft)
An Appendix to: "Using Dublin Core"

1/23/04, dih
2/12/04, rsg
2/16/04, dih
9/2/04, dih
9/29/04, rsg
9/30/04, dih

Function of roles and history of approval by DCMI

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 and there have been a number of ideas proposed for how to accommodate this need. A role is a term that further refines the contribution of the agent to the resource described by specifying the particular contribution. An example is that "illustrator" might be a role associated with the element Contributor when that person provided illustrations to the resource rather than being responsible for other aspects of the intellectual content.

The DCMI Usage Board has discussed the issue several times and agreed that the role values are properly element refinements. At its meeting in Florence in Oct. 2002, the Board generally agreed that deprecating Creator and Publisher in favor of Contributor should be considered, since the role values Creator and Publisher could be used to refine Contributor if needed. Because of negative response to this sort of change in the Dublin Core element set, the DCMI Usage Board decided to recommend role refinements only to Contributor, but to leave Creator, Contributor and Publisher as separate elements.

Because a standardized, widely adopted list of roles already existed in the MARC Code List for Relators, it was recommended early in these discussions that DCMI not develop its own. In early 2000 a subset of the MARC relators list was circulated for approval to include 10 generally applicable roles out of the approximately 150 MARC relator terms. Because of the need to consider other aspects of the "Agent" issue, at that time the proposal was deferred. Discussion initially in the DC-Libraries Working Group (which prepared an application profile for use in libraries that included the relator terms) and later in the DCMI Usage Board revealed that consensus was that users not be constrained by a too-small list of elements and that the entire list of relator terms should be considered given the difficulty of anticipating needs in various domains.

However, as the UB evaluated the terms on the list, it became clear that the full list included terms that extended beyond the scope of the semantics of dc:contributor. The UB agreed that, in principle and practice, refinements of elements (as sub-properties) must in every case be a valid sub-property by refining rather than extending the semantics of that element or property. The obvious solution was to specify which terms are subproperties of dc:contributor by falling under the definition of “an entity responsible for making contributions to the content of the resource. Also needed was a process to continue to evaluate new terms added by LC to their list on the basis of this requirement.

For those implementations wishing to use terms from the MARC relators list that do not have a sub-property relationship to dc:contributor, it should be noted that an implementation may

use these terms with no intrinsic harm to interoperability by using those terms directly as MARC relator terms. As an example:

| Original term | Dumb-down | "Simple DC" |
|---|---|---|
| marcrel:degreeGrantor | marcrel:degreeGrantor | --- |
| marcrel:owner | marcrel:owner | --- |
| marcrel:illustrator | dc:contributor | dc:contributor |

Thus, in the context of DC record based on an application profile using MARC relator terms, usage of roles not on the valid sub-property list approved by DC could be used in a Qualified DC expression, but not in a Simple DC expression, according to the rules for dumb-down.

The Library of Congress has prepared an RDF expression of the MARC relator list, to be used in conjunction with the Dublin Core element Contributor. The document contains assertions as to whether or not the particular role term is a subproperty of dc:contributor as follows:

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />.

The MARC Relator list, what it is and how it's structured

The MARC Code List for Relators was developed for use in MARC 21 bibliographic records to express the relationship between a name and a work. The list includes both role terms and three-character codes that represent those terms. The terms were only included on the list when the name and its associated role were considered important enough to include on a bibliographic record as an access point. The Library of Congress is the maintenance agency for this list and regularly adds new ones when the need is expressed and documented.

The MARC Relator list includes three-character alphabetic codes to be used to identify roles. These are to be considered synonyms for the term they represent. In addition the list provides definitions for use of the term/code. In the RDF representation, the codes are tokens to be used for the term and are part of the URI. In some cases unused terms refer to used terms; these are included in the RDF representation as a note (dc:description).

Terms that do not contain the assertion that they are a subproperty of contributor are not to be considered a refinement of dc:contributor. In determining whether the subproperty assertion applies LC and the Usage Board took a fairly narrow view. The assertion is included only if that contribution always was in terms of the content of the resource. For example, "binder" does not have the subproperty assertion, since it depends upon what the resource is; sometimes a binder may contribute to the content if the item is valued as an art object, while in other instances, the binder has not contributed to content.

Using Roles with Contributor

In order to minimize the possibility of confusion, the Usage Board has authorized the use of roles only with the element Contributor. Because Creator is in some sense a role elevated to a position at the level of element, the Board's position is that it makes no sense to provide yet another level of roles beneath that particular element.

An assertion is made that marcrel:publisher is equivalent to dc:publisher; in this instance publisher may or may not also be a contributor to the resource so the subproperty of contributor

assertion is not made. In the case of marcrel:creator, an assertion is made that it is equivalent to dc:creator. If marc:creator is used instead of dc:creator, this should be done consistently-- the two terms should probably not be used together in the same instance. In addition, the term "depicted" is considered a subproperty of dc:subject and "distributor" a subproperty of dc:published; in these cases this assertion is made.

Because roles are to be used only with the Contributor element, appropriate "Dumb Down" of all agent refinements expressed as roles will be to Contributor. Given this, implementors may choose (preferably within the context of an application profile), to specify explicitly whether the MARC relator term of creator should be used, based on the fact that the distinction could be retained in Simple Dublin Core if the Element level term is retained for those particular roles.

Using Roles in XML and other Schemas

Because the maintenance of the MARC Relator list will remain with the Library of Congress, the namespace of the roles will be established by LC and will not be a DCMI namespace. Thus, schemas will need to include the MARC relator namespace in order to properly express role terms. See the document Guidelines for Implementing Dublin Core in XML <http://dublincore.org/documents/dc-xml-guidelines/> for specific information on using non-DCMI namespaces.

Terms not on the MARC Relators list

The MARC Relator list has been developed over many years to meet a wide variety of needs. New terms are added on the basis of need, and LC has expressed willingness to continue to expand the list upon request. Implementers also have the option to create and expose alternative vocabularies for the expression of other kinds of roles not reflected in the MARC Relator list. Another alternative is to present a proposal to the DCMI Usage Board to define a new refinement within the dc:terms namespace, if such refinement meets the given criteria for being cross-domain and needed for resource discovery.

Managing the Use of Role in an Implementation

The full MARC Relator list includes approximately 150 separate terms for various roles. A subset is provided here for use with dc:contributor. Even within this subset some of the roles on the list were created for specific domains and would be of little use in other communities. It might therefore be useful for implementations to declare a further subset of the role vocabulary as relevant to their specific goals, preferably by way of a formal application profile.

| | |
|---|---|
| **Title:** | **Element Refinement in Dublin Core Metadata** |
| **Creator:** | Pete Johnston |
| **Date Issued:** | 2004-10-01 |
| **Identifier:** | http://www.ukoln.ac.uk/metadata/dcmi/dcmi-elem-refine/2004-10-01/ |
| **Replaces:** | Not applicable |
| **Is Replaced By:** | Not applicable |
| **Latest Version:** | http://www.ukoln.ac.uk/metadata/dcmi/dc-elem-refine/ |
| **Description of Document:** | This document describes the concept of 'element refinement' as used in Dublin Core metadata. It seeks to explain the consequences of stating that one property 'refines' a second property. The purpose is to clarify that in some cases it may be appropriate and useful to make such an assertion and in other cases such an assertion may result in contradictions. |

---

### Elements, Properties and Statements

Dublin Core elements and element refinements are properties. A property is "a specific aspect, characteristic, attribute, or relation used to describe resources". According to the *DCMI Abstract Model*, all these aspects, characteristics, attributes and relations" involve relationships between the subject resource and a second resource, a value [DCMIAM]. This means that a property is a type of relationship between two things.

A property is itself a resource, a "conceptual" resource. When DCMI adds an element or element refinement to one of its vocabularies (DCMI Namespaces), it creates a human-readable description of that relationship type, that concept, and it assigns a globally unique identifier to the property, in the form of a URI reference.

The scope of URI references is global: the URI reference denotes that same relationship type, that same concept, wherever it is cited. Further, the persistence policies described in the *Namespace Policy for the Dublin Core* guarantee that that URI reference will always denote that same relationship type [DCMINS]. So, the assignment of a URIref means that other parties can use this unique identifier to refer to that relationship type, and the combination of its global uniqueness and persistence mean that the reference is unambiguous.

The URIref assigned to the property can be used in statements in Dublin Core metadata descriptions. According to the *DCMI Abstract Model*, a DC metadata description is a set of one or more statements about a single resource, and a statement is a two-part construct consisting of a reference to a property and a reference to a second resource, a value [DCMIAM]. The reference to the subject of the description is made by a URIref (the "resource URI"). The reference to a property also takes the form of a URIref (the "property URI"). The reference to the value may take various forms but for the purposes of this discussion, the examples show the simplest cases where that reference takes the form of a URIref (a "value URI") or a string (a "value string").

Each statement asserts that a relationship of the type indicated by the property exists between two resources: the resource that is the subject of the description, and the value (see note [1]:

| Resource URIref | Statements | |
|---|---|---|
| | Property URIref | Value URIref |
| ex:book1 | dc:subject | ex:SemanticWeb |

A property is a resource and may itself be described by a DC metadata description, in which case the URIref of the property appears as the "resource URI", and the property itself is part of a relationship whose type is denoted by another property URI:

| Resource URIref | Statements | |
|---|---|---|
| dc:subject | **Property URIref** | **Value String** |
| | dc:description | "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." |

**Element Refinement**

In addition to providing a definition and identifier for each of the properties it declares, DCMI also describes relationships between these properties. In particular it declares that some properties "refine" other properties. In the terms of the *Grammatical Principles* [3]

> An Element Refinement is a property ... which shares the meaning of a particular DCMI Element but with narrower semantics.

So for example:

```
dcterms:created rdfs:subpropertyOf dc:date
```

The machine-processable schemas published by DCMI include descriptions of all DC elements and element refinements. When one property refines another, a statement is included in the description of the element refinement, in which the property URIref is the URIref of a property from the RDF Vocabulary Description Language (RDF Schema) [RDFS], `rdfs:subPropertyOf`. This states that a relationship exists between the two Dublin Core properties, and the nature of that relationship is defined by the RDFS concept `rdfs:subPropertyOf`. The RDFS specification explains that this has a very specific consequence:

> The property rdfs:subPropertyOf is an instance of rdf:Property that is used to state that all resources related by one property are also related by another.

So if it is asserted that

```
dcterms:created rdfs:subpropertyOf dc:date
```

and a statement is made using `dcterms:created` as a property URIref, e.g.

| Resource URIref | Statements | |
|---|---|---|
| ex:book1 | **Property URIref** | **Value String** |
| | dcterms:created | "1973-05-05" |

then it is also true that

| Resource URIref | Statements |
|---|---|

| ex:book1 | Property URIref | Value String |
|---|---|---|
| | dc:date | "1973-05-05" |

This outcome holds for **all** statements made using of the URIref of the element refinement as a property URIref: whenever two resources are related by the element refinement, they are also related by the element. So an assertion that one element refines another - that an rdfs:subPropertyOf relationship exists between the properties - should be made only when the definitions of the properties are such that that is a desirable outcome.

**"To refine or not to refine"**

If there is just one case where the inferred statement would be inappropriate, then the refinement/subPropertyOf relationship should not be asserted.

Consider, for example, the case of the properties marcrel:OWN ("The person or organization that currently owns an item or collection") and dc:contributor ("An entity responsible for making contributions to the content of the resource"). Both properties describe relationship types that relate a resource to an "entity", an agent capable of some action.

And for a specific resource, it may well be true that a single entity is both an owner of and a contributor to that resource. But that does not apply in **all** cases. i.e. there are some resources where the entity who is the owner has not made a contribution to the content of the resource: not all resource owners are resource contributors. If marcrel:owner was described as a refinement of dc:contributor, then that would mean that **every** statement using marcrel:OWN as a property URIref would result in a statement using dc:contributor as a property URIref, which would not be appropriate.

Note that the **absence** of a subproperty assertion in no way limits the capacity of the metadata author to say that, **for any given resource**, the same entity is both the owner and the contributor. The metadata author simply makes the two statements separately:

| Resource URIref | Statements | |
|---|---|---|
| | **Property URIref** | **Value URIref** |
| ex:book1 | dc:contributor | ex:agent1 |
| | marcrel:OWN | ex:agent1 |

A second example: dc:date is defined as "A date associated with an event in the life cycle of the resource". If an implementer uses a property exterms:updatingFrequency to indicate "The periodicity of modifications to the resource", and describes that property as an element refinement of dc:date, then statements such as the following might be inferred:

| Resource URIref | Statements | |
|---|---|---|
| | **Property URIref** | **Value String** |
| ex:document1 | dc:date | "Monthly" |

Resources which are appropriate values for statements using exterms:updatingFrequency are not appropriate values for statements using dc:date, so it is **not** appropriate to describe that property as an element refinement of dc:date.

Similarly, conisder dc:rights, defined as "Information about rights held in and over the resource". Suppose an implementer uses a property exterms:privacyIndicator to indicate whether a document should be publicly available or not, and specifies that Boolean (yes/no) values should be used. If that property is described as an element refinement of dc:rights, that would result in statements such as the following being inferred:

| Resource URIref | Statements | |
|---|---|---|
| ex:document1 | **Property URIref** | **Value String** |
| | dc:rights | "Yes" |

There may be an argument that strictly speaking a Boolean value does not contradict the definition of dc:rights, but it would be difficult to consider the value "Yes" to be "information about rights held in and over the resource". So, again, it is **not** appropriate to describe exterms:privacyIndicator as an element refinement of dc:rights, because of the statements that would be inferred.

### "How many?" : Multiple Refinement Relationships

In the declarations that DCMI makes, any given property is the subject of only one rdfs:subPropertyOf relationship: a DC element refinement refines exactly one element. In principle, multiple assertions might be made, with the result that when the propert is used in a statement **multiple** additional relationships can be inferred to exist.

So if it is asserted that

```
exterms:bookDistributor rdfs:subpropertyOf exterms:distributor
```

and also

```
exterms:bookDistributor rdfs:subpropertyOf dc:publisher
```

and a statement is made using exterms:bookDistributor as a property URIref, e.g.

| Resource URIref | Statements | |
|---|---|---|
| ex:book1 | **Property URIref** | **Value URIref** |
| | exterms:bookDistributor | ex:Company1 |

then the following **two** statements are also true:

| Resource URIref | Statements | |
|---|---|---|
| ex:book1 | **Property URIref** | **Value URIref** |
| | exterms:distributor | ex:Company1 |
| | dc:publisher | ex:Company1 |

Note that it is not a question of choosing one option over the other, or two applications behaving in different ways: **both** statements are implied in **all** cases, and as long as the two applications have "knowledge" of the two

subproperty relations, they should both generate the same inferences.

**"Who says so?": DCMI Namespaces and other Metadata Vocabularies**

The capacity to assert the existence of `rdfs:subPropertyOf` relationships involving properties from the DCMI Namespaces is not limited to DCMI.

The publisher of another vocabulary may wish to declare that a property in that vocabulary is a subproperty of a property from the DCMI Namespaces, or even that a property from the DCMI Namespaces is a subproperty of a property from their vocabulary.

The MARC Relator Codes [MARCREL] provide a set of properties that can be used to assert relationships between resources and agents. It is useful that, where appropriate, subproperty relations between these properties and properties from the DCMI Namespaces are declared. e.g.

```
marcrel:ARR rdfs:subpropertyOf dc:contributor
```

(`marcrel:ARR` denotes a property which links a musical composition and its arranger.

With such information available, a Dublin Core application that encounters

| Resource URIref | Statements | |
|---|---|---|
| | Property URIref | Value URIref |
| ex:music1 | marcrel:ARR | ex:person1 |

can derive the statement

| Resource URIref | Statements | |
|---|---|---|
| | Property URIref | Value URIref |
| ex:music1 | dc:contributor | ex:person1 |

This means that an application that has no "prior knowledge" of `marcrel:ARR`, but which does derive the appropriate inferences from the assertion of the `rdfs:subPropertyOf` relationship, can make use of the `dc:contributor>` statement.

Finally, it should be noted that a subproperty assertion may be made by a third party who is not the owner/publisher of either of the properties involved. Suppose a metadata vocabulary has been constructed by a designer with no knowledge of the existence of Dublin Core. In their descriptions of their properties they have made no references to the notion that their property `exterms:songwriter` is related to `dc:creator`. If an implementer is working with both that metadata vocabulary and with the DCMI vocabularies, it may well be valuable for them to make a subproperty assertion:

```
exterms:songwriter rdfs:subpropertyOf dc:creator
```

so that, when their Dublin Core application encounters

| Resource URIref | Statements |
|---|---|

| | |
|---|---|
| ex:music1 | **Property URIref** / **Value URIref**<br>externs:songwriter / ex:person1 |

that application can derive the statement

| **Resource URIref** | **Statements** |
|---|---|
| ex:music1 | **Property URIref** / **Value URIref**<br>dc:creator / ex:person1 |

**Summary**

- A declaration that one property refines, or is a subproperty of, a second property is an assertion of a **specific type of relationship** between the two properties.
- The meaning of the refinement/subproperty relationship is defined by the RDF Vocabulary Description Language (RDF Schema): the existence of a subproperty assertion states that **all resources related by one property are also related by the other property**.
- Refinement/subproperty relations may be asserted to exist between **any** two properties
- The existence of subproperty assertions enables an application to infer **additional statements**; this can be useful to an application encountering an "unknown" property
- A subproperty assertion is **global**: it applies to **all** occurrences of the property URIref in a statement; care should be taken not to assert subproperty relations where the inferences that may be drawn are incorrect or contradictory.
- A subproperty assertion is **not a requirement** for using a property from another vocabulary in Dublin Core metadata descriptions.
- Subproperty assertions may be made by the owner(s) of the properties or by a third party.

**Notes**

**[1]** For the sake of brevity, in the examples, URI references are represented by Qualified Names. Prefixes are assumed to be associated with Namespace Names as follows:

- **dc:** http://purl.org/dc/elements/1.1/
- **dcterms:** http://purl.org/dc/terms/
- **dcmitype:** http://purl.org/dc/dcmitype/
- **marcrel:** http://www.loc.gov/marc.relators/
- **rdf:** http://www.w3.org/1999/02/22-rdf-syntax-ns#
- **rdfs:** http://www.w3.org/2000/01/rdf-schema#
- **exterms:** http://example.org/terms/
- **ex:** http://example.org/things/

**References**

**[DCMIAM]**
DCMI Abstract Model
http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/

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

**[MARCREL]**
MARC Relator Codes
http://lcweb2.loc.gov:8081/cocoon/relators/relators.xml

**[RDFS]**
RDF Vocabulary Description Language 1.0 (RDF Schema)
http://www.w3.org/TR/rdf-schema/

---

| Valid XHTML 1.0! | Valid CSS! |
| --- | --- |

Title: Proposal for a term "Accessibility"
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-accessibility/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Stuart Sutton

In August, the DCMI Accessibility Working Group submitted a proposal for a term called "Accessibility". In Shanghai, we need to decide whether or not to approve this as a new DCMI Element.

The following are required reading:

-- The proposal
http://www.ozewai.org/DC-term-proposal/prop-reqs-table2.html

-- About the proposal
http://www.ozewai.org/DC-term-proposal/overview.html

-- Evaluation of the proposal
http://www.ozewai.org/DC-term-proposal/criteria.html

The following background material is not required:

http://www.ozewai.org/DC-term-proposal/index.html

---

Date: Wed, 29 Sep 2004 06:46:03 +0200
From: Thomas Baker <thomas.baker@bi.fhg.de>
To: DCMI Usage Board <dc-usage@jiscmail.ac.uk>
Subject: Accessibility proposal

---

It looks to me like the definition of Accessibility may need to be wordsmithed to make it more general and bring it into line with other DCMI definitions. The proposed definition reads:

> A reference to a machine-readable profile that describes the qualities of a resource that can be used to match the needs and preferences of a user as expressed in a machine-readable user profile.

The comments specify that the referenced profile may be in RDF, XML, EARL, etc. Problems include:

> "A reference to..." -- no longer appropriate now that a value is considered to be a resource.
>
> Restriction to "machine-readable" in the definition itself.

For example, one might edit as follows:

> A description of the qualities of a resource that can be used to match the needs and preferences of a user...

If anyone would like to work out an alternative wording beforehand, this could save us time in the meeting.

# DC-Accessibility Element Proposal: Accessibility

| | |
|---|---|
| **Title:** | Working Group Term Proposal: Accessibility |
| **Creator:** | Dublin Core Accessibility Working Group |
| **Date Issued:** | 2004/8/28 |
| **Identifier:** | http://www.ozewai.org/prop-reqs-table2.html |
| **Replaces:** | None |
| **Is Replaced By:** | None |
| **Latest Version:** | http://www.ozewai.org/prop-reqs-table2.html |
| **Status of Document:** | Proposal to DCMI Usage Board |
| **Description of Document:** | This document presents a proposal from the Dublin Core Accessibility Working Group for a new element named "Accessibility" |

---

# Proposal

| | |
|---|---|
| **Name:** | http://purl.org/dc/terms/accessibility |
| **Label:** | Accessibility |
| **Definition:** | A reference to a machine-readable profile that describes the qualities of a resource that can be used to match the needs and preferences of a user as expressed in a machine-readable user profile. |
| **Comment:** | The needs and preferences of users are not defined in terms of disabilities or required only because a user has disabilities, but they enable those with disabilities, among others, to state their requirements.<br><br>The content of the referenced profile may be expressed in XML, RDF, EARL, or otherwise. The Information Model for the element is available along with an Overview and Best Practice Guide. |
| **Examples:** | An XML schema has been developed by IMS that shows how the profile information can be encoded in XML (see http://www.imsproject.org/xsd/imsaccmd_v1p0.xsd). The following example is extracted from the IMS documentation:<br><br>Scenario: An HTML file contains text and an embedded Flash animation (visual only, no sound). There is also alternative textual content to the animation defined by accessibility meta-data as an equivalentResource containing alternativesToVisual properties. A user profile has a content element with the alternativesToVisual preference set and wishes to interact with the aggregate file. The system applies the matching test on the aggregate HTML resource and sees it has a hasVisual property with a value of true. Subsequently it sees the animation has an equivalentResource with an alternativesToVisual which matches the user's content preferences. At this point the system replaces the animation with the text alternative. The system modifies the aggregate resource by changing its reference to the animation to a reference to text, i.e., the embedded Flash animation's <object> tag is replaced with a <p> tag containing the alternative textual content. |

| | |
|---|---|
| **Type of term:** | Element |
| **Term qualified:** | None |
| **Why needed:** | The element will be significant in the case of a user with limited access facilities and useful either to allow them to confirm or reject presentation of the resource or to discover substitute content to replace or augment content that is a problem. Note that sometimes what is inaccessible is only a small part of what might be thought of as a composite object, such as an image in a web page. This object in its original form is known as a primary object and may within itself contain other forms of the same object, known as secondary objects. Where there is a secondary object that is not part of the primary object, it is associated with the primary object as a secondary object but has separate metadata as it is a separate object.<br><br>There can be little doubt that metadata that allows a user to find a resource that is accessible to them is always a high priority. The proposed element was developed in collaboration with other communities in order to ensure that it would be of universal use. It may be considered that the existence of the element as an essential element in the relevant application profiles is sufficient. First, this is not adequate because it will not appear every time a cataloguer creates metadata, if this is the case. Second, it could be that the set of values of interest with respect to a resource could be scattered across the range of existing elements but this approach has been discredited by experience. Finally, a recommended element is proposed even though it would appear that an application profile would be adequate. In all situations, for all resources, accessibility is important and it should always be in the same form. |
| **Working Group/ community support:** | The proposed element has been developed over several years. The range of problems that a resource may have for users was first analysed and described. This process was widely advertised and subjected to public debate and comment by the collaborating group, the IMS Global Learning Consortium. Dublin Core Accessibility Working Group members were kept informed of this process and invited to comment on the developments and drafts, and they did. Discussion took place on a number of discussion lists, primarily the IMS coments list. All comments sent to IMS were formally processed. To review the discussion archives of the Accessibility Working Group, see http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A0=dc-accessibility.<br><br>The proposed element is a reflection of the user profile noted above. It also has been developed by an international collaborative team containing many DC Working Group members and in full knowledge of its development being posted regularly to the DC Accessibility Working Group. IMS again managed the process of advertising the profile, soliciting and managing comments and issues that were raised. |
| **Proposed status:** | Recommended |

| | |
|---|---|
| **Related DCMI terms:** | The possibility of capturing and recording necessary metadata to support accessibility has been considered over several years. Although the DCMES has a number of elements and element refinements that individually might be suitable for inclusion of the information being proposed, this approach was considered by the Working Group and relevant communities and rejected.<br><br>First, accessibility is something that should be not only of concern but seen to be of concern to those concerned with DC metadata. By having a single clear element that references accessibility information it draws the attention of the cataloguer to the need for accessibility information. Secondly, the creation of a suitable statement of accessibility of an object is usually determined as a result of using a metadata management tool that assists the accessibility author. Thirdly, the accessibility metadata author may not be the same person as makes the other type of metadata and may, in fact, be an accessibility expert. In order to maximize the opportunity to attract accessibility metadata, to simplify the creation of this metadata, to promote its creation, and to significantly simplify access to the necessary metadata (because it is all in one place). |
| **Related non-DCMI terms:** | IMS AccLIP and AccMD (AccessibilityForAll User Profile and Accessibility Metadata)<br><br>These two specifications are those worked on by DC Accessibility WG members as well as IMS participants. They provide the information model and recommendations for encoding of the information but they are to be used within IMS Content packaging. This was always understood as different from their being DC used within a DC term and they were specifically developed with their DC use in mind. |
| **Impact on applications:** | Minimal. Since current DC-based applications provide no conflicting means of unambiguously referencing accessibility profiles, impact on those applications would be minimal. |
| **About the proposers:** | Scope of DC Accessibility Working Group:<br><br>The DC Accessibility Working Group has been engaged with the issue of developing metadata for accessibility since its inception. Members of the Working Group are involved in a range of accessibility activities in a range of countries and have endeavoured to work collaboratively across all communities.<br><br>Aims:<br><br>To maximise opportunities for accessibility for all users where accessibility is defined as the matching of resources in terms of control, display and content to user needs and preferences. Specifically, this will cater for the needs and preferences of those with disabilities.<br><br>Brief History:<br><br>Current status: A collaborative exercise was initiated in which the DC Accessibility Working Group worked with others to discover the best way to specify accessibility metadata. The IMS Accessibility Working Group, as part of the IMS Global Learning Consortium, hosted the work and will provide the ongoing support and publication of the relevant specifications on behalf of the collaborators who specifically include the DCMI. The IMS Accessibility Working Group has proposed the element to the IMS Technical Board and it has been accepted as an IMS recommendation.<br><br>Pointer to IMS Reports, Documents and Discussion Archives: http://www. |

| | |
|---|---|
| | imsproject.org/accessibility. |

# Overview

The DC Accessibility Working Group has been investigating issues related to accessibility and metadata for four years. At the beginning, it seemed that it would be easy to find some values for existing DCMES terms and perhaps a profile should be specified to make this process easy. After some analysis, however, it became clear that this approach would not be simple and in fact would require the introduction of a number of new refinements to some of the elements. Meanwhile, work in the accessibility field in other contexts showed that there was resistence to metadata that would incriminate content authors and publishers and so the idea of using the approach of metadata to represent conformance to standards or accessibility specifications was recognised as likely to be unpopular.

In 2003, work on a new approach was adopted. It focused on the matching of resources to users and avoided issues of conformance. The work, while initiated in a forum hosted by the IMS Global Learning Consortium, was specifically undertaken with the intention of being collaborative work with some other groups but primarily the Dublin Core Accessibility Working Group.

Dublin Core Accessibility Working Group members were invited to participate, as some did, and all the work was specially documented according to Dublin Core practices so that DC Accessibility WG members could participate. This involved a special effort on the part of the IMS Consortium. There was also a special effort to ensure that the work was internationally acceptable and so several fora beyond the open IMS one were supported so that discussion could be open. The fluidity of association of the working participants was perhaps unusual but within the accessibility world, this appears to be the best that can be hoped for at present.

The following communities were engaged in discussions about the new element:

- DC Accessibility WG
- IMS Global Learning Consortium Accessibility Special Interest Group
- W3C Web Accessibility Initiative Interest group
- EuroAccessibility
- SIDAR Foundation
- WGBH-NCAM
- INCITS V2
- CEN-ISSS APLR
- CEN MMI-DC
- ISO TC SC36??

The approach adopted was based on the information about users and resources that is necessary to match resources to user's needs and preferences. It involved developing a formal approach to issues of accessibility that should be embedded in metadata.

A profile of categories of causes of inaccessibility for users was developed and formally defined in a specification that became an IMS specification. This profile involves three categories of access: control, display (or presentation) and content. The development of this profile was undertaken with full awareness that it would not just be useful in the educational community where it was initiated but that it would be good for all situations. It was documented in a way that would make it suitable for use within Dublin Core style systems if user profiles were being used. It is known as the AccLIP Profile and published at http://www.imsproject.org/accessibility .

There have been several efforts to broaden the DCMI approach to user descriptions, suggesting that DCMI has concentrated on resource description but that user descriptions may also be well-described using DC architecture. A short paper on this will be presented at the DC 2004 Conference in Shanghai.

The second part of the work involved developing a mirroring specification that could be used to describe resources to enable the matching process. This work was undertaken more formally in collaboration with the DC Accessibility Working Group. The specification was developed with emphasis on the need for it to be immediately useful for the Dublin Core community and applications. This work has now been completed and is fully documented with an Overview, Best Practice Guide, Information Model, XML Schema and Binding, and is designed to be supplemented by other schema in the near future.

Significantly, although within the IMS community some people may choose to scatter the metadata throughout an IMS Compliant metadata profile, this is not recommended best practice even in that context. The use of a single element to be known as the accessibility element is what is recommended in the published reports. One reason for this is because this will bring the use of the element into line with what is proposed for the Dublin CORE community. Within that community, as explained above, it was already considered better to have all the accessibility information in one place. This view was strengthened during interactions with others during the final stages of development of the specification. Those concerned with accessibility consider that it is likely to be most successful if it is a single element, partly because of how the metadata is expected to be created and partly because of how it is expected to be used.

The element being proposed and its use are described in the published Overview and Best Practices Guide. These documents include explanations of how the element can be used and a set of FAQs designed to give a sense of its context and value. This information is not repeated here because great care was taken in the writing of the original documents and they are the best available (please see http://www.imsproject.org/accessibility ).

The work was simultaneously implemented by the Canadian participants in the work and can be tried on the demonstration site http://inclusivelearning.ca/ . The implementation is in a system known as TILE, The Inclusive Learning Exchange. It uses both the user profile and the resource profile.

The value that is best used in the proposed element will be a URI that points to an EARL statement. EARL is the Evaluation and Report Language developed by W3C and is an XML-based constrained language that extends the RDF (Resource description Framework) family. An EARL statement not only contains a simple statement of a resource and associated property, in a machine –readable format that includes a way of resolving the property type, but it mandates that there will be at least three such properties, including one that identifies the creator and another that identifies the date of the statement.

So, we propose the following:

A term that has as its value an URI that points to a machine-readable statement.

The production of an EARL statement might seem like a heavy requirement for the ultimate value of an element. This is not considered to be the case because within the accessibility world, EARL statements are treated as typical good practice and many of the tools that are used to test accessibility produce them. Sometimes the EARL statements are produced in order to record the accessibility of a resource in terms of conformance to some standard or specification, but in this case the required information will available for the element as well, at least after a simple transformation.

The use of an EARL statements is equivalent to the use of ‘controlled' vocabularies. It is to be recommended but not essential. There is already an XML schema that defines the values to be used and the use of XML conforming to this schema will be sufficient. The XML schema is available at http://www.imsproject.org/accessibility .

DC Accessibility Working Group
27 August 2004

# 4.3.1. Criteria for evaluating a term proposal

## 4.3.1.1. Clarity

**4.3.1.1.1.** Can the term be clearly defined?

Yes. This is an element the value of which is intended to be used by computers. This means that the value of the element must be machine readable. It could be either a URI or a suitably encoded document.

**4.3.1.1.2.** Can the semantics of the proposed element or element refinement be expressed precisely, unambiguously, and briefly?

Yes. See the Information Model and related XML Schema at http://www.imsproject.org/accessibility . See also the implementation TILE ( http://inclusivelearning.ca/ ).

## 4.3.1.2. Practicality

**4.3.1.2.1.** Is the term practical?

**4.3.1.2.2.** How difficult would it be for people creating metadata to comprehend the semantics of the proposed element or element refinement and to apply it reasonably in the description of resources?

The display and control details are related to explicit characteristics of objects. The content characteristics are more subjective. Many of the people who are going to create the metadata are likely to be using an accessibility evaluation tool with an appropriate interface that makes the metadata creation easy, including the process of encoding it. Such tools are known as ‘accessibility evaluation tools' and common in the accessibility world.

## 4.3.1.3. Placement

**4.3.1.3.1.** Does the term refine an existing element?

No, although it could be argued it refines a number of them. Early work on accessibility showed that it would not be easy to include the necessary information and that if it was included in amongst the general set of metadata terms, it would be spread all over the place and several term values would have to be brought into comparison to determine what is necessary. For instance, while the genre of a resource may be ‘text' with the implication that it is to be read, the format might be ‘image'. In this case, the resource would be considered inaccessible. Neither tem in isolation can provide this information. For a further explanation of these problems, see the report of the DC Accessibility Working Group meeting held at the DC Conference in Florence ( http://dublincore.org/groups/access/workshop-20021017.html ).

**4.3.1.3.2.** If the proposed term is an element, can it reasonably be handled as effectively as an element refinement or encoding scheme for an existing element?

No. (Attach notes about the existing DC terms and why they do not solve the problem – see 4.3.1.3.1.)

**4.3.1.3.3.** Are there alternative ways of implementing the term? Within the conceptual framework of the Dublin Core Element Set (i.e., element/element refinements and encoding schemes), are there alternative ways to achieve the ends sought?

It would be possible to work some of the aspects of the accessibility agenda into a number of parts of the existing DC structure. There is an explanation of the technical problems with this. More importantly, the value of a separate, self-contained element has been considered in detail. Generally, requirements for those with special needs are described by experts as are the accessibility features of resources they may use. The latter are usually the result of working with software that in most cases now produces a single, Evaluation and Report Language (EARL). It would be possible to make many statements from this single report but there does not seem to be any value in doing that. As the statement itself is encoded, it seems much cleaner and neater to have a single value for the element, a URI, and have all the information

together. What could be put into existing elements and refinements would not really be human-readable.

## 4.3.1.4. Needs

**4.3.1.4.1.** Is there a clear requirement in existing implementations for the term in support of resource discovery?

There is now a legal requirement in many countries that content should be accessible. This is the first step towards making it possible for users because it identifies problems and provides for systems that can detect metadata warning of mismatches and look for content that is accessible to replace or supplement the original inaccessible content.

**4.3.1.4.2.** Is there a demonstrated need for the proposed element or element refinement?

Yes. Currently it is not possible to determine if content will be accessible in advance of it being delivered. This can cause problems for a person who cannot access the content, but it also is not the goal-state that is of interest to those trying to ensure accessibility for their users. This element does not involve claims of accessibility or otherwise which might better be described as conformance metadata. It is very important to distinguish this element from such an element because of the legal implications of inaccessibility and therefore, expected resistance to the use of such an element.

**4.3.1.4.3.** Are there existing implementations or encoding schemes, etc., which use the term?

Yes. The lead has been taken by the Assistive Technology Resource Centre's work at the University of Toronto. This work has been undertaken with the Canadian Government. It is of interest to the International Standards organization and is currently being considered for endorsement by them. The exemplary implementation of The Inclusive Learning Exchange (TILE) which can be tried at http://inclusivelearning.ca/ ). It is currently being implemented a number of other situations.

## 4.3.1.5. Fits with other DCMI-maintained terms

**4.3.1.5.1.** Follows existing principles of refinement

**4.3.1.5.2.** Is well-formed

Well-formed terms.

**4.3.1.5.3.** Does not conflict with or create ambiguity with regard to existing DCMI-maintained terms

**4.3.1.5.4.** Does not create problems for existing legacy implementations if those implementations have followed recommended practice.

Title: Term proposed by the Education WG
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/terms-education/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Akira

The proposal is posted at:
http://www.ischool.washington.edu/sasutton/8-28-04/index.html

## DC-Ed Element Proposal: Instructional Method

| | |
|---|---|
| **Title:** | Working Group Term Proposal: Instructional Method |
| **Creator:** | Dublin Core Education Working Group |
| **Date Issued:** | 2004/8/28 |
| **Identifier:** | http://www.ischool.washington.edu/sasutton/8-28-04/ |
| **Replaces:** | http://www.ischool.washington.edu/sasutton/8-21-04/ |
| **Is Replaced By:** | None |
| **Latest Version:** | http://www.ischool.washington.edu/sasutton/8-28-04/ |
| **Status of Document:** | Proposal to the DCMI Usage Board |
| **Description of Document:** | This document presents a proposal from the Dublin Core Education Working Group for a new element named "instructionalMethod" |

---

## Proposal

| | |
|---|---|
| **Name:** | http://purl.org/dc/terms/instructionalMethod |
| **Label:** | Instructional Method |
| **Definition:** | Processes by which knowledge, attitudes and skills are deliberately engendered and assessed. |
| **Comment:** | This element describes ways of presenting instructional materials or conducting instructional activities, patterns of learner-to-learner and learner-to-instructor interactions, and mechanisms by which group and individual levels of learning are measured. Instructional methods include all aspects of the instruction and learning processes from planning and implementation through evaluation and feedback. |
| **Examples:** | Resource relies on "brainstorming":<br><br>"Resource includes group brainstorming activities that encourage the creative generation of ideas in which group members contribute suggestions in a spontaneous, noncritical manner."<br><br>Note: Where a controlled vocabulary of instructional method terms is available, value URIs may be used. (E.g., http://purl.org/gem/instance/GEM-TM/#Brainstorming)<br><br>Resource supports "discovery learning":<br><br>"Resource provides a learning situation in which the principal content of what is to be learned is not given but must be independently discovered by the learner."<br><br>Note: Where a controlled vocabulary of instructional method terms is available, value URIs may be used. (E.g., http://purl.org/gem/instance/GEM-TM/#DiscoveryLearning) |

| | |
|---|---|
| | Resource provides for "peer assessment":<br><br>"Resource provides for peer evaluation."<br><br>Note: Where a controlled vocabulary of instructional method terms is available, value URIs may be used. (E.g., http://purl.org/gem/instance/GEM-AM/#PeerEvaluation)<br><br>Resource provides for "individualized instruction":<br><br>"Instruction can be adapted to meet individual needs within the group of students."<br><br>Note: Where a controlled vocabulary of instructional method terms is available, value URIs may be used. (E.g., http://purl.org/gem/instance/GEM-GRO/#IndividualizedInstruction) |
| **Type of term:** | Element |
| **Term qualified:** | None |
| **Why needed:** | Frequently, statements about the instructional methods used with an educational resource are a primary means of separating one resource from another and provide the end-user with a means of selecting resources to retrieve that more closely meet the needs of specific educational contexts and goals.<br><br>Not all educational resources are designed with specific teaching and learning methods in mind. For example, learning objects intended for reuse in varying contexts may be devoid of explicit methods of use. In such cases, best practice dictates that no information be recorded in the instructionalMethod element. Best practice also suggests the development and deployment of controlled vocabularies for the instructionalMethod element to support the needs of specific groups within the larger teaching and learning community. However, the recommendation of any specific volcabulary or set of vocabularies for the instructionalMethod element is beyond the scope of this proposal. |
| **Working Group/ community support:** | The notion of being able to capture metadata statements about the learning processes and techniques has been before the Working Group since before its face-to-face meeting in Melbourne (Kattemingga Lodge) in February 2000. [For a summary of the Kattemingga meeing, *see* http://www.ischool.washington.edu/sasutton/dc-ed-f2f/] Since 2000, DC-based applications in the education and training domain have continued to develop local elements and vocabularies to record statements of these sorts.<br><br>For discussion of the proposed element, see the following postings from the DC-Ed Working Group list (as well as others) relate to the proposal:<br><br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0405&L=dc-education&T=0&F=&S=&P=53<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0405&L=dc-education&T=0&F=&S=&P=177<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0405&L=dc-education&T=0&F=&S=&P=288<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin? |

| | |
|---|---|
| | A2=ind0406&L=dc-education&T=0&F=&S=&P=174<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-education&T=0&F=&S=&P=56<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-education&T=0&F=&S=&P=345<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-education&T=0&F=&S=&P=467<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-education&T=0&F=&S=&P=586<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-education&T=0&F=&S=&P=717<br>• http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0408&L=dc-education&T=0&F=&S=&P=961 |
| **Proposed status:** | Conforming |
| **Related DCMI terms:** | None |
| **Related non-DCMI terms:** | There is no IEEE LOM element that provides for holding statements of the sort held by the proposed element. While an undifferentiated description of an instructional method might be assigned to IEEE LOM 5.10:Educational.Description, use of the element is not recommended because of its "catch all" purpose within the LOM. Note that the CanCore best practices guide "... does not recommend the use of this element [5.10:Educational.Description] for the purposes of interoperation in distributed environments." (Canadian Core Learning Resource Metadata Application Profile. Available at: http://www.cancore.ca/documents.html) |
| **Impact on applications:** | None. Since current DC-based applications provide no conflicting means of making such metadata statement, impact on those applications would be obviously minimal. Some applications store such information as an undifferentiated part of dc:description. Again, the impact of this new term would be minimal on such applications. |
| **About the proposers:** | The term is proposed by the Dublin Core Education Working Group. The Working Group has been charged with proposing new element and element refinements that serve the needs of the education and training communities.<br><br>Records of the activity of the DC-Education Working Group are available in the mailing list archives. |

Title: Approval of Encoding Schemes
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker
Latest version: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/registration/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Source: e:/work/dc-issues/registration-lightweight/index.txt

Until the Usage Board meeting in Bath in March 2004, the issue "registration of encoding schemes" referred to a process and tools for expediting the creation of DCMI-maintained encoding schemes identified with URIs to be maintained in accordance with the DCMI Namespace Policy. An analysis of steps which would need to be undertaken in order to put such a registry in place was posted at [1].

In Bath, Traugott was tasked with setting up a "lightweight, purely informational database" in the form of a flat Web page with pointers to encoding schemes. Related issues and dependencies -- such as policy documentation which would need to be put into place -- are summarized at [2]. As this registry would not involve the creation of new terms (i.e., DCMI-maintained URIs), the idea was that this informational page would would not be operated by the Usage Board, but by DCMI as a whole.

As of September 2004, Traugott has confirmed that he is not in a position to set up this Web page. In Shanghai, therefore, we need to clarify the current Usage Board process for approving new Encoding Schemes [3]. An Encoding Scheme requested for the NLM Classification provides a concrete example [4].

The approval of new DCMI-maintained URIs for Encoding Schemes, in turn, is related to the Usage Board stance towards recommending (or not) the use of non-DCMI-maintained URIs as Encoding Schemes in Dublin Core metadata, which we will need to discuss in relation both to the Abstract Model [5] and to the specific case of ISO standards [6].

As part of the process of clarifying Usage Board process, we should examine legacy documents and prototypes related to the older plan of a Web-based registration service [7,8,9,10]. We should consider folding parts of those documents into the main Usage Board Process document and clearly marking the superseded documents and Web interfaces as deprecated.

REFERENCES

[1] http://dublincore.org/usage/meetings/2004/03/ISSUES/registration/
[2] http://dublincore.org/usage/meetings/2004/03/ISSUES/registration-lightweight/
[3] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/process/
[4] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/nlm/
[5] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/abstract-model/
[6] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/
[7] http://wip.dublincore.org/schemes/index.html.
[8] http://www.lub.lu.se/~traugott/drafts/vocab-scheme-Jan04.html
[9] http://www.lub.lu.se/~traugott/drafts/vocab-guide6.html.
[10] http://dublincore.org/usage/documents/vocabulary-guidelines/

Title: Encoding Scheme "ISO8601"
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Rebecca

In Bath [1], Rebecca was assigned the action to finalize the decision text [2]. This was to involve two things:

1) including links to W3C documents [3,4], and

2) including (both in the decision and in the announcement) text to the effect that this will potentially be the last new DCMI term declared with reference to an ISO standard unless ISO decides _not_ to name such things within their own namespace.

In September, however, it was noticed that such a statement about the use of non-DCMI URIs as DCMI Encoding Schemes was closely related to the issue raised at the Bath meeting with regard to reusing MODS terms in a Dublin Core metadata context.

At issue is the nature of what, in any given case, is actually identified by a URI and whether the entity identified really fits into the DCMI Abstract Model.

In Shanghai, therefore, we will aim at finalizing the revised description of the term "ISO8601" so that it can be added to the DCMI term sets (Point #1 above). And we will discuss the assignment of DCMI Encoding Schemes to non-DCMI standards (such as ISO standards) in the context of a broader discussion of the use of non-DCMI terms and term URIs in Dublin Core metadata (Point #2 above).

Some relevant email is appended below.

[1] http://dublincore.org/usage/meetings/2004/03/ISSUES/registration-proposals/
[2] http://www.bi.fhg.de/People/Thomas.Baker/public/2004-03.ISO8601.txt
[3] http://www.w3.org/TR/NOTE-datetime
[4] http://www.w3.org/TR/xmlschema-2/#isoformats
[6] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/registration/
[7] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/nlm/
[8] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/

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Date: Tue, 14 Sep 2004 10:49:50 +0100
Reply-To: DCMI Collection Description Group <DC-COLLECTIONS@JISCMAIL.AC.UK>
Sender: DCMI Collection Description Group <DC-COLLECTIONS@JISCMAIL.AC.UK>
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: ISO8601 vs W3CDTF
To: DC-COLLECTIONS@JISCMAIL.AC.UK

---

Douglas,

I'll try to respond to your other points later, but just on this specific point:

> But back to DC CD AP - It doesn't feel right to be re-defining an

> encoding scheme as we have done in the current draft - either you are
> using ISO 8601 or you're not! A side issue is using the "dcterms"
> namespace is anticipating DCMI will endorse it.

Apologies, this is my fault, and I should have made it clearer what was going on with the ISO8601 encoding scheme.

I completely agree with you that DCAPs must not redefine encoding schemes.

My understanding is that the Usage Board has already (in June 2003) accepted ISO8601 as an encoding scheme, and indicated their intent to create a corresponding class http://purl.org/dc/dcterms/ISO8601 in the DCterms vocabulary. See

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0307&L=dc-usage&P=R15220&I=-1

and subsequently

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0402&L=dc-usage&P=R1278&I=-1

I understand that there has been some delay in _publishing_ that decision and actually including an RDFS description in the DCMI schemas, but that decision _has_ been made.

So what I really wanted to do in DC CD AP was just reference this DCMI term (as we do for the other DCMI encoding schemes) and reproduce the DCMI description. But that description doesn't exist for me to reproduce :-( so I just did a quick one myself, essentially as a placeholder so that we could get the reference to ISO8601 into this draft - and maybe prompt the UB into publishing their decision! ;-)

There is some current dialogue about this on the UB list

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-usage&T=0&F=&S=&P=1454

but it really deals with a broader debate about when DCMI-created URIs are required and when URIs coined by other parties can be cited.

I don't think there is any indication that UB are going to reverse their decision that ISI8601 has been adopted as a DCMI encoding scheme, though, and I see Tom has just posted a message seeking to separate out that issue and get the ISO8601 decision finalised

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-usage&T=0&F=&S=&P=2083

which is good. ;-)

> I think we should propose DC-Date make their top priority decision be:
> "Does the W3CDTF encoding scheme include date ranges, and
> what types are included (eg. open ended)?". [NB: I will be pushing
strongly
> on DC-Date that it _does_ include ranges.] This is probably the
longest-standing
> issue around W3CDTF dates, and potentially could be resolved
> reasonably quickly.

And I had always understood that W3CDTF does not cover date ranges, and we have been stretching that spec by labelling date ranges as conforming to W3CDTF ;-)

So....

> Then we could remove the dcterms:ISO8601 encoding scheme (and I could
> sleep at nights ;-) ).
>
> A small extra note - the AP summary document omits W3CDTF from

> dcterms:created and cld:dateContentsCreated.

.... yes, that was intentional on my part, because the expectation is
that these will always be date ranges and (IMHO!) W3CDTF does not cover
date ranges.

But yes, I agree with you that this is something - probably, as you say,
the single issue! - that I would have liked to see the DC Date WG
clarify, as it is a permanent source of ambiguity and confusion, and
just about every implementer goes over the same ground.

FWIW, Andy and I also highlighted to UB recently that the definition of
dc:date itself is ambiguous :-(

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0407&L=dc-usage&T=0&F=&S=&P=1346

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0407&L=dc-usage&T=0&F=&S=&P=1464

Pete

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Date: Tue, 14 Sep 2004 11:17:10 +0100
Reply-To: DCMI Collection Description Group <DC-COLLECTIONS@JISCMAIL.AC.UK>
Sender: DCMI Collection Description Group <DC-COLLECTIONS@JISCMAIL.AC.UK>
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: ISO8601 vs W3CDTF
To: DC-COLLECTIONS@JISCMAIL.AC.UK
---

On Tue, 14 Sep 2004, Pete Johnston wrote:

> > I think we should propose DC-Date make their top priority decision be:
> > "Does the W3CDTF encoding scheme include date ranges, and
> > what types are included (eg. open ended)?". [NB: I will be pushing
> strongly
> > on DC-Date that it _does_ include ranges.] This is probably the
> longest-standing
> > issue around W3CDTF dates, and potentially could be resolved
> > reasonably quickly.
>
> And I had always understood that W3CDTF does not cover date ranges, and
> we have been stretching that spec by labelling date ranges as conforming
> to W3CDTF ;-)

There is nothing in

http://www.w3.org/TR/NOTE-datetime

to indicate that ranges are supported. I.e. none of the supported formats
is a range. My personal view is that your 'rest of ISO8601 still applies'
argument is unlikely to be the case - i.e. only the exact formats listed
in the profile are allowable. But I agree that your view may be correct!
:-)

Note that this isn't an issue over which DCMI has any control. The
W3CDTF profile is "owned" by the W3C. Therefore I would suggest that an
email to the original authors (both listed at the top of the profile spec)
is the best course of action at this time??

Andy

Title: Decision on proposal for dcterms:ISO8601
Shepherd: Rebecca Guenther
Identifier: http://dublincore.org/usage/decisions/2004/2004-01.ISO8601.txt
Date: 2004-03-20

Proposal text: http://dublincore.org/usage/meetings/2003/06/dclib-encodingschemes.html
Decision: Accept

Approved text - beginning

---

URI: http://purl.org/dc/terms/ISO8601
Namespace: http://purl.org/dc/terms/
Name: ISO8601
Label: ISO8601
Definition: This encoding scheme represents the alternative provided in ISO 8601 that does not include hyphens as separators between year, month, and day.
Type of Term: http://dublincore.org/usage/documents/principles/#encoding-scheme
Qualifies: http://purl.org/dc/elements/1.1/date
Qualifies: http://purl.org/dc/elements/1.1/coverage
Qualifies: http://purl.org/dc/terms/temporal
Date issued: 2004-03-20
Decision: http://dublincore.org/usage/decisions/#Decision-2004-01

---

Approved text - end

Availability and maintenance status:
ISO document (available for a fee)

Appropriateness of maintenance agency:
Appropriate

Uniqueness and appropriateness of proposed token:
Unique, but may be confusion with the other alternative in 8601 with hyphens, defined in DC as w3cdtf.

Possible use with elements not specified in proposal

Other comments:
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 in DCMI. Alternative using no hyphen needs to be registered as an encoding scheme, since it is well established in the library community.

---
Date: Mon, 20 Sep 2004 11:46:44 -0400
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: Re: Decision text for ISO 8601 encoding scheme
To: DC-USAGE@JISCMAIL.AC.UK
---

Okay, in fact I think I'll change the text a bit. It is now:
"This encoding scheme represents the alternative provided
in ISO 8601 that does not include hyphens as separators
between year, month, and day."

change to:

"This encoding scheme represents the alternative form specified in ISO
8601 as 'basic format', which does not include hyphens as separators
between year, month, and day."

References
Note that it is a problem that ISO does not provide free access to its
documents. However, I have bookmarked the final draft of the 2000 revision
to ISO 8601 which explains the different alternatives. I recommend
including it as a reference:

1. ISO 8601:2000
Representation of dates and times, second edition
Final draft, as edited and published by the ISO/CS
http://lists.ebxml.org/archives/ebxml-core/200104/pdf00005.pdf
(alternatives detailed in 5.2.1.1)

2. Date and Time Formats
http://www.w3.org/TR/NOTE-datetime
This note defines a profile of ISO 8601, which specifies the "extended
format" representation, i.e. inclusion of hyphens between year, month and
day.

3. XML Schema: Datatypes (Appendix D: ISO 8601 Date and Time Formats)
http://www.w3.org/TR/xmlschema-2/#isoformats
This W3C recommendation is part 2 of the specification of the XML Schema
language and provides more detail on ISO formats.

Rebecca

On Mon, 20 Sep 2004, Thomas Baker wrote:
> On Mon, Sep 20, 2004 at 11:01:39AM -0400, Rebecca Guenther wrote:
> > I just looked at the decision text and it looks fine to me. What further
> > do I need to do?
>
> According to
> http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/,
> links to two W3C documents should be added, perhaps with some
> accompanying text.

---
Date: Mon, 20 Sep 2004 17:42:19 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Decision text for ISO 8601 encoding scheme
To: DC-USAGE@JISCMAIL.AC.UK
---

Tom, Rebecca,

> According to http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/,
> links to two W3C documents should be added, perhaps with some
> accompanying text.

Did you see Douglas Campbell's comments on the dc-date list?

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-date&T=0&F=&S=&P=395

I think it needs to be absolutely clear whether the encoding scheme is intended to permit all of the options available in ISO8601.

These two references may muddy the waters slightly:

http://www.w3.org/TR/NOTE-datetime W3CDTF permits only a subset of ISO8601 (That's where we came in!)

http://www.w3.org/TR/xmlschema-2/#isoformats The XML Schema datatypes also appear to diverge from ISO8601:

====
It should be pointed out that the datatypes described in this specification do not cover all the types of data covered by [ISO 8601], nor do they support all the lexical representations for those types of data.
====

So if these links are included, I think it needs to be clear what their inclusion signifies with regard to the encoding scheme.

Pete

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Date: Mon, 20 Sep 2004 14:10:35 -0400
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: Re: Decision text for ISO 8601 encoding scheme
To: DC-USAGE@JISCMAIL.AC.UK

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On Mon, 20 Sep 2004, Pete Johnston wrote:

> Tom, Rebecca,
>
> > According to http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/,
> > links to two W3C documents should be added, perhaps with some
> > accompanying text.
>
> Did you see Douglas Campbell's comments on the dc-date list?
>
> http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-date&T=0&F=&S
> =&P=395
>
> I think it needs to be absolutely clear whether the encoding scheme is
> intended to permit all of the options available in ISO8601.

The intent was only to allow the expression of date using what they call the "basic format", i.e. without hyphens. It is not supposed to address other permutations or date ranges. ISO doesn't really have separate designations for these various options. We could consider a different designation? Like "ISO 8601 basic" or ISO8601B. But we'll be making it up.

Douglas Campbell's message talks particularly about date ranges, which hasn't been covered by DCMI. It was an issue in the DC-Lib AP.

> These two references may muddy the waters slightly:
>
> http://www.w3.org/TR/NOTE-datetime W3CDTF permits only a subset of
> ISO8601 (That's where we came in!)

Right. The representation with hyphens separating YYYY and MM and DD etc.

> http://www.w3.org/TR/xmlschema-2/#isoformats The XML Schema datatypes
> also appear to diverge from ISO8601:

I only put it in because Tom told me to, but I don't really think it's all
that relevant to the discussion, so would just as well leave it out. More
confusing than anything.

Rebecca

---

Date: Mon, 20 Sep 2004 20:32:00 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Decision text for ISO 8601 encoding scheme
To: DC-USAGE@JISCMAIL.AC.UK

---

> The intent was only to allow the expression of date using
> what they call the "basic format", i.e. without hyphens. It
> is not supposed to address other permutations or date ranges.
> ISO doesn't really have separate designations for these
> various options. We could consider a different designation?
> Like "ISO 8601 basic" or ISO8601B. But we'll be making it up.

Yes, but we _are_ making up the name anyway ;-)

Douglas' instinctive assumption (and mine, initially, to be honest!) was
that dcterms:ISO8601 would mean _any_ format permitted by ISO8601.

"The thing with dcterms:ISO8601 is that if you're going to call it that,
surely it can really only mean ISO 8601 in its entirety."

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-date&T=0&F=&S=&P=659

I wasn't certain what the plan was, but I did say it was dangerous to
make that assumption, and you shouldn't read too much into a name:

"Well, I'd argue that dcterms:ISO8601 or more properly
http://purl.org/dc/terms/ISO8601 is just a name.

What that name/URIref denotes is up to the Usage Board to say. I agree
that it might be confusing, but there's no reason they can't say it
denotes some subset of the dates available under ISO8601."

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0409&L=dc-date&T=0&F=&S=&P=797

But having said that, I do have some sympathy with Douglas' position,
especially given that (AFAIK) DC doesn't impose any similar
"qualifications" (!) in the definitions of our other terms that
reference other specs and standards: the references to the RFCs and
other ISO standards just mean "the value space as defined in RFCxxx or
ISOxxx".

So if DC does impose some caveats here, it has to be very clear.

> Douglas Campbell's message talks particularly about date
> ranges, which hasn't been covered by DCMI. It was an issue in
> the DC-Lib AP.

So, to be absolutely clear on this issue, can I just ask whether this
new encoding scheme (whatever it is called) permits date ranges or not?

> I only put it in because Tom told me to, but I don't really
> think it's all that relevant to the discussion, so would just
> as well leave it out. More confusing than anything.

I think so, yes.

Pete

---

Date: Tue, 21 Sep 2004

From: Tom
---

On Mon, Sep 20, 2004 at 02:10:35PM -0400, Rebecca Guenther wrote:
> > http://www.w3.org/TR/xmlschema-2/#isoformats The XML Schema datatypes
> > also appear to diverge from ISO8601:
>
> I only put it in because Tom told me to, but I don't really think it's all
> that relevant to the discussion, so would just as well leave it out. More
> confusing than anything.

According to the notes in the Bath meeting packet
(http://dublincore.org/usage/meetings/2004/03/ISSUES/registration-proposals/),
the additions were suggested by Roland and agreed to by
Rebecca:

> In Ithaca in June 2003, we discussed proposals for several
> encoding schemes [1].
>
> The Ithaca notes show we approved two proposals [2]:
> -- http://purl.org/dc/terms/ISO8601 (by a vote of 7 to 1)
> -- http://purl.org/dc/terms/AAT (by a vote of 8 to 0)
>
> We also decided [2]: "New terms to go in the terms namespace
> with one or two exceptions (MARC, DOI?). Discussions and
> agreement on new terms to be continued online in early to
> mid-July."
>
> I see the proposals were discussed in July 2003 [3,4,5]
> and then in Seattle, and this would appear to be the state
> of affairs:
>
> 1) http://purl.org/dc/terms/ISO8601
>    Discussed and approved.  I have put a draft of the decision text at
>    http://dublincore.org/usage/meetings/2004/03/2004-01.ISO8601.txt.
>    If Rebecca confirms this is accurate, we can publish it after the
>    Bath meeting.
>
>    Note that Roland suggested [4]: "As far as ISO
>    8601 is concerned i refer to the Abstract of
>    http://www.w3.org/TR/NOTE-datetime as well as
>    http://www.w3.org/TR/xmlschema-2/#isoformats. May I suggest
>    to include both links with the registration of ISO 8601."
>    Rebecca agreed that these links should be included.

Since the original decision to approve ISO8601 was made fifteen
months ago, and finalization of the wording has proved to
be more difficult than expected, I think we should discuss
the proposal in Shanghai in the context of the broader issues
which have arisen with regard to date, then we should re-vote
to approve "ISO8601".

**Date:** Fri, 17 Sep 2004 13:35:26 +1200
**Reply-To:** Douglas Campbell <Douglas.Campbell@NATLIB.GOVT.NZ>
**Sender:** DCMI Date Working Group <DC-DATE@JISCMAIL.AC.UK>
**From:** Douglas Campbell <Douglas.Campbell@NATLIB.GOVT.NZ>
**Subject:** Re: FW: Clarification on W3CDTF and date ranges
**Content-Type:** text/plain; charset=US-ASCII
**Content-Disposition:** inline

Pete,

Thanx for the investigation. As the person who prompted this question on DC-Collections in the first place, I accept now that date ranges may, or may not, be in scope for dcterms:W3CDTF, though I am heartened to know I wasn't actually wrong (in using date ranges under W3CDTF) - just I wasn't necessarily right either!

Perhaps the options are:
1. Amend the dcterms:W3CDTF definition/comment to indicate that W3CDTF in the DC community implies the inclusion of date ranges following the ISO 8601 format of "W3CDTFdate/W3CDTFdate"
2. Require date ranges to be encoded under dcterms:ISO8601
3. Create a new scheme like "dcterms:DCdateRange" which is specifically for "W3CDTFdate/W3CDTFdate"
4. Create a new scheme like "dcterms:DCdate" which is DCMI's profile of ISO 8601 and includes the issues DC-Date is aiming to solve, eg. date ranges, BCE dates, questionable dates, etc.
5. Do nothing

My preference in the short term is (1), but then to implement (4) in the longer term.

I'm not sure of the logistics of (1). Maybe it's easier to issue a "DCMI guideline for encoding date ranges using the W3CDTF encoding scheme" rather than changing definitions/comments directly??

With my implementor's hat on, I have to say dcterms:ISO8601 (in option 2 and also in DC-Lib AP) scares me - I cannot even begin to imagine the complex code required to interpret ALL the possible permutations in the 8601 standard that may appear in element data specified as being in dcterms:ISO8601 format. I would prefer to see we recommend one (or more) manageable subsets/profiles like in option (4).

Thanx,
Douglas Campbell
National Library of New Zealand

>>> Pete Johnston <p.johnston@UKOLN.AC.UK> 16/09/04 02:32:28 >>>
FYI...

... as this issue came up again on dc-collections and as it seemed to come down to individuals' interpretations of the W3CDTF spec, I asked the opinion of the authors.

I _think_ Misha's response is saying that in an example like

"1973-05-05/1974-06-06" (or even "1973-05-05 1974-06-06", which is _not_
sanctioned by ISO8601)

the individual dates within the range (the "atoms") are specified by the
W3CDTF profile, but the date range format itself is determined by some "molecular" standard other than W3CDTF, and so is neither endorsed nor outlawed by the W3CDTF profile.

So it comes down to how we interpret the DCMI term http://purl.org/dc/terms/W3CDTF ! i.e. whether

(a) that class is the class of W3CDTF "atoms" (dates/times), in which case it is incorrect to say that a date range is an instance of that class; or

(b) that class is the class of "molecules" built on W3CDTF "atoms", including date ranges, in which case it is OK to say that a a date range
is an instance of that class.

I'm still inclined to say that (a) is true, but I'm slightly less sure than I was! ;-)

Pete

-----Original Message-----
From: Misha Wolf [mailto:Misha.Wolf@reuters.com]
Sent: 15 September 2004 13:20
To: Pete Johnston
Cc: datetime-comments@w3.org; charles.wicksteed@reuters.com
Subject: RE: Clarification on W3CDTF and date ranges

Hi Pete,

I'm not sure whether the opinions of a(n) (co-)author of a
(quasi-)standard are any more valuable than the opinions of anyone
else.
But as you ask, I'll give you my view, which is based on re-reading
this
ancient piece of work :-)

The profile defines "atoms" of date/time. How a given
standard/community/process uses/combines these atoms is not addressed
by
the profile. Thus there is nothing in the profile that would disallow
a
date/time range using the syntax you show. Hence, it is a legal use
of
the profile. One cannot, on the other hand, state that such a syntax
is
actually part of the profile, as it is clearly not.

Let me give another example. If some standard/community/process would
require two dates separated by a space, one could ask whether the
profile supports this usage or not. My reply would be the same as
I've
given above: Such a usage in no way contradicts the profile. On the
other hand, it isn't explicitly mentioned by the profile, hence it
cannot be said to be directly sanctioned by the profile.

This is a matter of layering. One standard builds "molecules" from
"atoms" specified by another standard.

Misha Wolf
Standards Manager
Product and Platform Architecture Group
Reuters

-----Original Message-----
From: Pete Johnston [mailto:p.johnston@ukoln.ac.uk]

Sent: 15 September 2004 12:03
To: Misha Wolf; charles.wicksteed@reuters.com
Cc: datetime-comments@w3.org
Subject: Clarification on W3CDTF and date ranges

Hello,

I'd be grateful if you could offer some guidance on a point regarding the W3CDTF Date and Time Formats document.

The Dublin Core Metadata Initiative recommends the use of W3CDTF for the representation of dates in Dublin Core metadata.

However, the "dates" recorded by DC implementers are often "date ranges" (in ISO8601 terms, periods of time or time intervals, usually expressed as a start date and end date).

The W3CDTF specification does not contain any examples of periods of time, and as a result it is not quite clear whether W3CDTF covers the representation of date ranges or not, i.e. whether

(a) W3CDTF supports the representation of all the data types listed in section 5 of ISO 8601 (dates, times of day, combinations of dates/times of day, and periods of time), subject to the constraints described in the W3CDTF profile

or

(b) W3CDTF supports the representation only of dates, times of day, and combinations of dates/times of day, subject to the constraints described in the W3CDTF profile, and not the representation of periods of time

Specifically, a date range like

1973-05-05/1974-06-06

appears to be a valid representation of a period of time using ISO8601.
Is it also valid in W3CDTF?

I'd be very grateful if you could offer any clarification.

Thanks
Pete Johnston

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Pete Johnston
Research Officer (Interoperability)
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mailto:p.johnston@ukoln.ac.uk
http://www.ukoln.ac.uk/ukoln/staff/p.johnston/



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Title: Encoding Scheme for "NLM Classification"
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/nlm/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Rebecca

2004-05-19. Diane Boehr of NLM inquired about "getting the NLM classification to be one of the approved qualifiers" for dc:subject. In response, Andy explained how one could name one's own encoding scheme with a URI and use that URI in XML encodings without having to "register" it with DCMI. However, Tom thought she was asking how DCMI might somehow recognize ("approve" or "recommend") such an NLM URI, which suggested alternative actions such as the following:

-- alert DC-General (once);
-- record the fact on Traugott's planned Web page;
-- review the assertion in UB and endorse or recommend it in some form;
-- record that assertion in a machine-processable form so that the endorsement of the NLM term shows up in our Web documents and RDF schemas;
-- ensure that the term appears in the DCMI Registry.
-- There is also an option of using the LC source code list that includes a value for NLM classification; and LC has said they would define URIs for all the values on these lists.

Rebecca spoke with Diane Boehr in June, and it would seem NLM simply wants to have a DCMI-maintained encoding scheme designating the NLM classification.

The email exchange above is summarized in http://www.bi.fhg.de/People/Thomas.Baker/public/2004-06-23.email-digest.txt.

In Shanghai, we need to decide what to do about this in the context of a broader discussion of how the Usage Board will henceforth handle Encoding Schemes now that DCMI has decided not to operate a Web-based "registration" service [1,2,3]

[1] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/registration/
[2] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/process/
[3] http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/iso8601/

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Date: Fri, 21 May 2004 10:56:55 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Fwd: Approved qualifiers in Dublin Core
To: DC-USAGE@JISCMAIL.AC.UK

---

On Thu, 20 May 2004, Diane Hillmann wrote:

> Folks:
>
> Any suggestions for an answer to this?

My answer would be the same as the one I gave to the NetInsert people, i.e. something along these lines...

--- cut ---

One approach is that you 'name' your encoding scheme using a URI within your own namespace, e.g.

http://wwwcf.nlm.nih.gov/class/Class

If you do this, then your XHTML encoding would be along the lines of

```
<link rel="schema.DC" href="http://purl.org/dc/elements/1.1/" />
<link rel="schema.NLM" href="http://wwwcf.nlm.nih.gov/class/" />

<meta name="DC.subject"
      scheme="NLM.Class"
      content="WA 288"
/>
```

This is in line with the XHTML encoding guidelines at

  http://dublincore.org/documents/dcq-html/

and doesn't require any registration of 'NLMClass' with DCMI.

Note that there are other possibilities for choosing the URI that you use to name your taxonomy - for example, you could use a PURL

  http://purl.org/NLM/Class

in which case the 'rel="schema' line above will need to be changed. Note also that there are psuedo-religious issues around whether you should use a URIref rather than a URI to name your scheme (i.e. whether it should have a '#' in it or not).

The above approach can also be used if you choose a future encoding based on XML, where the instance metadata will look something like

```
<dc:subject xsi:type="nlm:Class">WA 288</dc:subject>
```

given an appropriate namnespace declaration for the 'nlm' prefix.
It will also work in RDF/XML (though the syntax is not as shown above).

You might also like to consider assigning a URI (or URIref) to each of the terms in your taxonomy? If so, then a possible way of doing this is to use the 'info' URI scheme (though note that this isn't a registered URI scheme yet). For details see

  http://www2.elsevier.co.uk/~tony/info/info.html

Some examples are at

  http://www2.elsevier.co.uk/~tony/info/info.html#ex_ddc

--- cut ---

Andy

> >From: "Boehr, Diane (NIH/NLM)" <boehrd@mail.nlm.nih.gov>
> >To: "'dih1@cornell.edu'" <dih1@cornell.edu>
> >Subject: Approved qualifiers in Dublin Core
> >Date: Wed, 19 May 2004 16:18:41 -0400
> >
> >Diane,
> >
> >How would NLM go about getting the NLM classification to be one of the
> >approved qualifiers for DC.Subject?  MeSH has already been approved and we
> >would like the value NLMClass to also be added, with the following URL
> >link <http://wwwcf.nlm.nih.gov/class/>http://wwwcf.nlm.nih.gov/class/
> >
> >I couldn't find an official contact for a request like this on the DCMI
> >site, so I hope you can help.
> >
> >Diane Boehr
> >
> >Diane Boehr
> >Cataloging Unit Head
> >National Library of Medicine
> >8600 Rockville Pike
> >Bethesda, MD 20894
> >301-435-7059
> >boehrd@mail.nlm.nih.gov
>

---

Date: Fri, 21 May 2004 13:14:26 +0200
From: Thomas Baker <thomas.baker@BI.FHG.DE>
Subject: Re: Fwd: Approved qualifiers in Dublin Core
To: DC-USAGE@JISCMAIL.AC.UK

---

Diane Boehr of NLM wrote:
> > >How would NLM go about getting the NLM classification to be one of the
> > >approved qualifiers for DC.Subject?  MeSH has already been approved and we
> > >would like the value NLMClass to also be added, with the following URL
> > >link <http://wwwcf.nlm.nih.gov/class/>http://wwwcf.nlm.nih.gov/class/

Diane Hillmann asked:
> > Any suggestions for an answer to this?

Andy responded:
> This is in line with the XHTML encoding guidelines at
>
>   http://dublincore.org/documents/dcq-html/
>
> and doesn't require any registration of 'NLMClass' with DCMI.

Andy's response provides guidance on using the URI (which
they already have) in encodings, but Diane Boehr seems to be
requesting that DCMI provide approval for NLM classification.

Two responses seem possible:

1) Traugott, who may be out of email contact just now, is going
   to put up a simple Web page listing Subject vocabularies.

2) We could consider whether the DCMI Usage Board can and
   should assign status to this externally maintained term,
   perhaps in the form of an endorsement of an assertion by NLM
   that http://wwwcf.nlm.nih.gov/class/ qualifies dc:subject.

---
Date: Wed, 23 Jun 2004 16:23:04 -0400
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: Re: "Approval" for NLM encoding scheme?
To: DC-USAGE@JISCMAIL.AC.UK
---

Okay, I talked to Diane yesterday. She didn't quite understand everything I was telling her I don't think. It seems that they are using Dublin Core elements, but as HTML, not as XML. You can see what they're using at: http://www.nlm.nih.gov/tsd/cataloging/metafilenew.html. You'll see they're using that dot syntax. They've used "NLMDC.Subject.NLMClass" as their element for this encoding scheme.

I explained to her the various options, particularly about declaring a persistent URI for the NLM classification and/or registering an info: scheme. (She did say that they are using that NLM classification URI as a persistent one.) This would work in the context of XML schema or RDF/XML but didn't have too much meaning for her since they seem to be using the dot syntax. So she still seemed to be more attracted to having some sort of registration of NLM classification comparable to what already exists in dcmi:terms for MESH and LCC.

I suppose how I interpret it is that she would like the option that Tom mentions below:
"record that assertion in a machine-processable form so that the endorsement of the NLM term shows up in our Web documents and RDF schemas;"
I guess that means a fast-track sort of registration/approval by the UB.

Alternatively, I could talk to someone else there who knows more about any plans they have for setting up namespaces, schemas and the like.

Rebecca

> On Sat, May 22, 2004 at 08:12:22AM +0200, Thomas Baker wrote:
> > On Fri, May 21, 2004 at 04:07:05PM -0400, Rebecca Guenther wrote:
> > > I'm not sure I understand how this relates to NLM. The assertions have to
> > > do with asserting whether each term in the relators list is a subproperty
> > > of Contributor. NLM is asking about how to use their encoding scheme with
> > > the DC element Subject. Or maybe I'm missing something on this late
> > > Fri. afternoon.
> >
> > NLM has a term which -- they would like to assert -- qualifies
> > a DCMI term. But unless I have misunderstood, Diane's point is
> > that NLM is _also_ looking for some sort of acknowledgement,
> > approval, recommendation, or dissemination by DCMI of that
> > assertion.
> >
> > The MARC Relators, to my way of thinking, are a test case for
> > working out the mechanics and the etiquette of making and
> > recognizing such assertions, so we should consider whether
> > it provides a model for handling the NLM qualifier.
> >
> > If NLM already has a term -- and it already has a persistent,
> > institutionally supported URI (still an "if" I believe) --
> > and they assert that it qualifies dc:subject, we could do
> > one or more of the following:
> >
> > -- simply take mental note;
> > -- alert DC-General (once);
> > -- record the fact on Traugott's planned Web page;
> > -- review the assertion in UB and endorse or recommend it in some form;
> > -- record that assertion in a machine-processable form so that the
> >    endorsement of the NLM term shows up in our Web documents and RDF
> >    schemas;
> > -- ensure that the term appears in the DCMI Registry.

Title: Type Vocabulary definitions and comments
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/type-definitions/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-10
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Stuart

On 2004-03-15, Stuart posted a revised Type Vocabulary
document with non-definitional text moved to the Comment field.
There are some issues of wording to discuss, after which we
need to vote whether to approve these changes.

Required reading:
http://www.bi.fhg.de/People/Thomas.Baker/public/2004-03-15.DCMIType-sas.html

**Title:** **DCMI Type Vocabulary**

| | |
|---|---|
| **Creator:** | DCMI Usage Board |
| **Identifier:** | http://dublincore.org/documents/2003/11/19/dcmi-type-vocabulary/ |
| **Date Issued:** | 2003-11-19 |
| **Latest Version:** | http://dublincore.org/documents/dcmi-type-vocabulary/ |
| **Replaces:** | http://dublincore.org/documents/2003/02/12/dcmi-type-vocabulary/ |
| **Replaced By:** | Not applicable |
| **Translations:** | http://dublincore.org/resources/translations/ |
| **Document Status:** | This is a DCMI Recommendation. |
| **Description:** | 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. The terms documented here are also included in the more comprehensive document "DCMI Metadata Terms" at http://dublincore.org/documents/dcmi-terms/. |
| **Date Valid:** | 2003-11-19 |

### Term Name: Collection

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Collection |
| Label: | Collection |
| Definition: | An aggregation of items. |
| Comment: | The term collection means that the resource is described as a group; its parts may be separately described and navigated. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Collection-001 |

### Term Name: Dataset

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Dataset |
| Label: | Dataset |
| Definition: | Information encoded in a defined structure (for example, lists, tables, and databases). |
| Comment: | A dataset is intended to be useful for direct machine processing. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Dataset-001 |

### Term Name: Event

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Event |
| Label: | Event |
| Definition: | A non-persistent, time-based occurrence. |
| Comment: | Metadata for an event provides descriptive information that is the basis for discovery of the purpose, location, duration, responsible agents, and links to related events and resources. The resource of type event may not be retrievable if the described instantiation has expired or is yet to occur. Examples - exhibition, web-cast, conference, workshop, open-day, performance, battle, trial, wedding, tea-party, conflagration. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Event-001 |

### Term Name: Image

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Image |
| Label: | Image |
| Definition: | A primarily symbolic visual representation other than text. |
| Comment: | For example - images and photographs of physical objects, paintings, prints, drawings, other images and graphics, animations and moving pictures, film, diagrams, maps, musical notation. Note that image may include both electronic and physical representations. |
| Type of Term: | vocabulary-term |
| Broader Than: | http://purl.org/dc/dcmitype/StillImage |
| Broader Than: | http://purl.org/dc/dcmitype/MovingImage |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Image-002 |

### Term Name: InteractiveResource

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/InteractiveResource |
| Label: | Interactive Resource |
| Definition: | A resource which requires interaction from the user to be understood, executed, or experienced. |
| Comment: | For example - forms on web pages, applets, multimedia learning objects, chat services, virtual reality. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | InteractiveResource-001 |

### Term Name: Service

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Service |
| Label: | Service |
| Definition: | A system that provides one or more functions of value to the end-user. |
| Comment: | Examples include: a photocopying service, a banking service, an authentication service, interlibrary loans, a Z39.50 or Web server. |

| | |
|---|---|
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Service-001 |

### Term Name: Software

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Software |
| Label: | Software |
| Definition: | A computer program in source or compiled form which may be available for installation non-transiently on another machine. |
| Comment: | For software which exists only to create an interactive environment, use interactive instead. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Software-001 |

### Term Name: Sound

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Sound |
| Label: | Sound |
| Definition: | A resource whose content is primarily intended to be rendered as audio. |
| Comment: | For example - a music playback file format, an audio compact disc, and recorded speech or sounds. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Sound-001 |

### Term Name: Text

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/Text |
| Label: | Text |
| Definition: | A resource whose content is primarily words for reading. |
| Comment: | For example - books, letters, dissertations, poems, newspapers, articles, archives of mailing lists. Note that facsimiles or images of texts are still of the genre text. |
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2000-07-11 |
| Version: | Text-001 |

### Term Name: PhysicalObject

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/PhysicalObject |
| Label: | Physical Object |
| Definition: | An inanimate, three-dimensional object or substance. |
| Comment: | Note that digital representations of, or surrogates for, these things should use Image, Text or one of the other types. |

| | |
|---|---|
| Type of Term: | vocabulary-term |
| Status: | recommended |
| Date Issued: | 2002-07-13 |
| Version: | PhysicalObject-001 |

### Term Name: StillImage

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/StillImage |
| Label: | Still Image |
| Definition: | A static visual representation. |
| Comment: | Examples of still images are: paintings, drawings, graphic designs, plans and maps. Recommended best practice is to assign the type "text" to images of textual materials. Instances of the type "Still Image" must also be describable as instances of the broader type "Image". |
| Type of Term: | vocabulary-term |
| Narrower Than: | http://purl.org/dc/dcmitype/Image |
| Status: | recommended |
| Date Issued: | 2003-11-18 |
| Version: | StillImage-001 |

### Term Name: MovingImage

| | |
|---|---|
| URI: | http://purl.org/dc/dcmitype/MovingImage |
| Label: | Moving Image |
| Definition: | A series of visual representations that, when shown in succession, impart an impression of motion. |
| Comment: | Examples of moving images are: animations, movies, television programs, videos, zoetropes, or visual output from a simulation. Instances of the type "Moving Image" must also be describable as instances of the broader type "Image". |
| Type of Term: | vocabulary-term |
| Narrower Than: | http://purl.org/dc/dcmitype/Image |
| Status: | recommended |
| Date Issued: | 2003-11-18 |
| Version: | MovingImage-001 |

---

| | |
|---|---|
| Valid XHTML 1.0! | Valid CSS! |

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

Title: Problems with the definition of dc:date
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/definition-date/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Andy stated the problem on 2004-07-27 on the DC-USAGE list:

> This issue has popped up twice on the lists recently.
> dc:date is defined as
>
> A date of an event in the lifecycle of the resource.
>
> which superficially looks like the intention was a single
> date rather than a date range.
>
> But I tend to agree with what Charles says here.
> Any single date is really a shorthand for a time-range
> (00.00 to 23.59 on the given day)... so what I suspect
> we really meant by dc:date was
>
> A date/time (or date/time range) of an event in the lifecycle of the
> resource.
>
> Would it be worth trying to clarify this in our
> documentation? Or do people disagree with my analysis
> anyway?
>
> ---------- Forwarded message ----------
> Date: Mon, 26 Jul 2004 21:23:23 -0400 (EDT)
> From: Charles McCathieNevile <charles@w3.org>
> To: kurt.godden@gm.com
> Cc: www-rdf-interest@w3.org
> Subject: Re: Dublin Core 'available' date range
> Resent-Date: Mon, 26 Jul 2004 21:24:06 -0400 (EDT)
> Resent-From: www-rdf-interest@w3.org
>
> You could model its availability as an event with a start and end time using
> the RDF/iCal work - http://www.w3.org/2002/12/cal/
>
> Although it is hard to say if this is the same as what dublin core thinks a
> single date might be. If it doesn't, it probably should. Time being a
> continuum (at least as far as we measure it) any date or time represents a
> range...

Pete replied:

> (I was involved in one of the discussions Andy mentioned above [1])
>
> I was sort of willing to be persuaded by Charles McC-N's message to rdf-
> interest too. i.e. a date is always really a reference to a period of time.
>
> But.... ISO8601:2000 does make a distinction between
>
> (a) a date, defined as
>
> ====
> identification of a particular calendar day, expressed by some combination
> of the data elements calendar year, calendar month, calendar week, calendar
> day or day of the year
> ====
>
> (b) a time interval or period of time, defined as
>
> ====

portion of time between two time points
====

I was kind of surprised to read that a date is always a reference to a _day_ but that's what it says.... (it may be of reduced precision)

If the intention is that a value of dc:date can be either a date, a combination of date and time, or a time interval/period of time - especially as DCMI has accepted ISO8601 as an encoding scheme - I think the terminology in DC definition probably should be consistent with ISO8601 usage, and there's a case for amending the definition of dc:date.

FWIW, I think that would still leave open the possibility that some refinements of dc:date could specify that their values are specifically dates (and not time intervals), if that was required.

Incidentally, I notice that ISO8601 also supports the representation of time of day alone. But I'm assuming a time that is not associated with a date is not an acceptable value for dc:date? I'm not sure whether that merits some qualifying note in the (forthcoming!) description of ISO8601 as an encoding scheme.

You can get a final(?) draft of ISO8601:2000 at [2]. But I guess you have to buy the approved version.

Pete

[1] http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0407&L=dc-collections&T=0&F=&S=&P=2734

[2] http://lists.ebxml.org/archives/ebxml-core/200104/pdf00005.pdf

**Date:** Wed, 15 Sep 2004 15:32:28 +0100
**Reply-To:** Pete Johnston <p.johnston@UKOLN.AC.UK>
**Sender:** DCMI Date Working Group <DC-DATE@JISCMAIL.AC.UK>
**From:** Pete Johnston <p.johnston@UKOLN.AC.UK>
**Subject:** FW: Clarification on W3CDTF and date ranges
**Content-Type:** text/plain; charset="us-ascii"

FYI...

... as this issue came up again on dc-collections and as it seemed to
come down to individuals' interpretations of the W3CDTF spec, I asked
the opinion of the authors.

I _think_ Misha's response is saying that in an example like

"1973-05-05/1974-06-06" (or even "1973-05-05 1974-06-06", which is _not_
sanctioned by ISO8601)

the individual dates within the range (the "atoms") are specified by the
W3CDTF profile, but the date range format itself is determined by some
"molecular" standard other than W3CDTF, and so is neither endorsed nor
outlawed by the W3CDTF profile.

So it comes down to how we interpret the DCMI term
http://purl.org/dc/terms/W3CDTF ! i.e. whether

(a) that class is the class of W3CDTF "atoms" (dates/times), in which
case it is incorrect to say that a date range is an instance of that
class; or

(b) that class is the class of "molecules" built on W3CDTF "atoms",

including date ranges, in which case it is OK to say that a a date range is an instance of that class.

I'm still inclined to say that (a) is true, but I'm slightly less sure than I was! ;-)

Pete

-----Original Message-----
From: Misha Wolf [mailto:Misha.Wolf@reuters.com]
Sent: 15 September 2004 13:20
To: Pete Johnston
Cc: datetime-comments@w3.org; charles.wicksteed@reuters.com
Subject: RE: Clarification on W3CDTF and date ranges

Hi Pete,

I'm not sure whether the opinions of a(n) (co-)author of a (quasi-)standard are any more valuable than the opinions of anyone else. But as you ask, I'll give you my view, which is based on re-reading this ancient piece of work :-)

The profile defines "atoms" of date/time. How a given standard/community/process uses/combines these atoms is not addressed by the profile. Thus there is nothing in the profile that would disallow a date/time range using the syntax you show. Hence, it is a legal use of the profile. One cannot, on the other hand, state that such a syntax is actually part of the profile, as it is clearly not.

Let me give another example. If some standard/community/process would require two dates separated by a space, one could ask whether the profile supports this usage or not. My reply would be the same as I've given above: Such a usage in no way contradicts the profile. On the other hand, it isn't explicitly mentioned by the profile, hence it cannot be said to be directly sanctioned by the profile.

This is a matter of layering. One standard builds "molecules" from "atoms" specified by another standard.

Misha Wolf
Standards Manager
Product and Platform Architecture Group
Reuters

-----Original Message-----
From: Pete Johnston [mailto:p.johnston@ukoln.ac.uk]
Sent: 15 September 2004 12:03

To: Misha Wolf; charles.wicksteed@reuters.com
Cc: datetime-comments@w3.org
Subject: Clarification on W3CDTF and date ranges

Hello,

I'd be grateful if you could offer some guidance on a point regarding the W3CDTF Date and Time Formats document.

The Dublin Core Metadata Initiative recommends the use of W3CDTF for the representation of dates in Dublin Core metadata.

However, the "dates" recorded by DC implementers are often "date ranges" (in ISO8601 terms, periods of time or time intervals, usually expressed as a start date and end date).

The W3CDTF specification does not contain any examples of periods of time, and as a result it is not quite clear whether W3CDTF covers the representation of date ranges or not, i.e. whether

(a) W3CDTF supports the representation of all the data types listed in section 5 of ISO 8601 (dates, times of day, combinations of dates/times of day, and periods of time), subject to the constraints described in the W3CDTF profile

or

(b) W3CDTF supports the representation only of dates, times of day, and combinations of dates/times of day, subject to the constraints described in the W3CDTF profile, and not the representation of periods of time

Specifically, a date range like

1973-05-05/1974-06-06

appears to be a valid representation of a period of time using ISO8601. Is it also valid in W3CDTF?

I'd be very grateful if you could offer any clarification.

Thanks
Pete Johnston

---

Pete Johnston
Research Officer (Interoperability)
UKOLN, University of Bath, Bath BA2 7AY, UK
tel: +44 (0)1225 383619 fax: +44 (0)1225 386838

mailto:p.johnston@ukoln.ac.uk
http://www.ukoln.ac.uk/ukoln/staff/p.johnston/



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

Topic: Review of application profiles
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker
Latest version: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/profiles/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Source: e:/work/dc-issues/profiles/index.txt

Shepherd: Tom

In Bath, we undertook a partial review of PBCore, the US National Public Broadcasting metadata dictionary [1]. This resulted in grateful acknowledgement of the DCMI Usage Board on the part of NPR [2].

In Bath, we reaffirmed that the Usage Board can assign the the status of "conforming" to an Application Profile based on a significantly more thorough review focused on elements and element refinements at the point of review. The AP designated as "conforming" (i.e., a snapshot of the AP document at the time reviewed) would be archived on the DCMI Website. Changes to the AP should result in a new AP and resubmission to the UB (i.e., for new "time stamp").

The documents describing this process are:

- -- http://dublincore.org/usage/documents/process/#six
- -- http://dublincore.org/usage/documents/profiles
- -- http://dublincore.org/usage/meetings/2004/03/cwa14855-20040210.pdf

As of September 2004, the Application Profile furthest along in the pipeline is DC-Lib, a new version of which was issued on 13 September 2004 [3]. According to the DC-Lib editor Robina Clayphan, there are two obvious areas where clarification is needed from the Usage Board before the AP can be completed and submitted for a formal review:

1) How to characterize the refinements for Contributor
   - I believe there is an ongoing UB discussion about a subset of LC roles to refine Contributor. Rather than list them all as refinements in DC-Lib I give a notional URL of the list. Notional as the subset does not yet exist as far as I know - is such a subset in preparation by the UB? Is this an acceptable way to declare these refinements in an AP?

2) How to describe/define encoding schemes in the AP.
   In the AP you will see I refer to encoding schemes in the table describing the element it qualifies and have then created a section at the end of the AP with a table per encoding scheme following the model Pete uses. I came across a few difficulties which I detail below. This is all part of the ongoing issue about registering encoding schemes.

In Shanghai, we should discuss these issues and decide whether we think the DC-Lib profile will be ready to be reviewed at the next UB meeting following Shanghai and what preparation (shepherding, public comment periods) that would entail.

[1] http://dublincore.org/usage/meetings/2004/03/ISSUES/profiles-pbcore/
[2] http://www.utah.edu/cpbmetadata/
[3] http://www.bl.uk/lib_app_draft1.htm

Title: Frequently Asked Questions and AskDCMI
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/faq/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

Shepherd: Diane

The AskDCMI service [1] was discussed in Bath [2], and there was an action on Diane to pull important questions and extant answers from AskDCMI and post to the UB list as the basis for a new FAQ.

In Bath, the Usage Board responded favorably to a proposal to have UB members "shepherd" individual, URI-citable answers in a completely revised FAQ. One would need to bear in mind that not every "Frequently Asked Question" is within the scope of the Usage Board. Some issues are clearly within the scope of the Directorate (e.g., related to DCMI as an organization). Others are related to Architecture, though there is no Architecture Board that could take responsibility here. The Directorate should therefore consider how ownership of this crucial but long-neglected document might be managed.

As of September, Diane reports that she has not made progress with this work item.

In Shanghai, Diane proposes to discuss the following:

-- Short tour of the new software that runs AskDCMI.
   It includes a number of significant fixes that should reduce some of the barriers that members of the Usage Board have identified as issues with the current version.

-- Asking whether this service is worth continuing

-- If no, how could we shut it down in an orderly fashion with the fewest lingering problems? What will we suggest to users as a substitute? DC-General?

-- If yes, how can we do better answering questions in a timely manner? Should we expand the expert group? How?

[1] http://askdcmi.askvrd.org/
[2] http://dublincore.org/usage/meetings/2004/03/ISSUES/askdcmi/

Title: Preservation policy for UB documentation
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/ub-documentation/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

As of September 2004, the UB Process document (Point 2.3.2) says:

> All materials pointed to in the agenda are archived at http://dublincore.org/usage/meetings/ after the final pre-meeting version of the agenda has been distributed. After the meeting, the archive version of the agenda is edited to point to these archive copies.

The best example of this is the tree of materials under:

> http://dublincore.org/usage/meetings/2004/03/ISSUES/

all of which are archived on the DCMI Web site and thus citable using DCMI URLs. This ensures that copies of all relevant materials, "frozen" in time, will be available in future.

However, archiving all of those materials at http://dublincore.org and editing all those URLs to point to DCMI-archived materials is alot of work. The alternative is to let the PDF meeting packet -- which holds copies of all documents relevant to a given meeting -- fulfill the function of preservation, e.g.:

> http://dublincore.org/usage/meetings/2004/03/Bath-meeting-packet.final.pdf

In Shanghai, I would like to hear the opinion of the UB on whether the extra work involved in archiving everything locally is worth it in the case of UB meeting materials -- or whether it would suffice to let the PDF packet serve this function.

Title: "DCX" - DCMI as a Namespace Host
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/dcx/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

The Usage Board has several times -- most notably in Bath in May 2002 -- circled around the notion of creating a namespace where users can "park" new or experimental terms without going through a formal approval process. The underlying idea is to make new or experimental terms citable (by URI), thus supporting a less "bureaucratic", more bottom-up, market-driven approach to creating new terms.

However, numerous problems with this approach have been discussed, for example: If terms from an experimental namespace were eventually to be approved by the DCMI Usage Board, would the term receive an additional URI in a DCMI Namespace, or would the Usage Board confer DCMI status on the existing URI in the experimental namespace? Assuming maintenance responsibility were to reside initially with the proposers of a term, at what point and under what circumstances would that responsibility revert to DCMI and the Usage Board? To what extent would the existing DCMI Namespace Policy extend to such an experimental namespace? What responsibility would DCMI bear to ensure, at a minimum, that terms in the namespace conform to DCMI grammatical principles?

The Usage Board has always circled back to the notion that in the end, terms must be maintained, and it should always be clear who is maintaining the terms -- at any rate for all terms which have or could be perceived to have branding by DCMI. The UB has hitherto always reaffirmed the conservative course of managing a small and slowly growing vocabulary of terms in accordance with reasonably strict policies, processes, and principles.

The idea of an experimental namespace has surfaced more recently on the DC-COLLECTIONS list, where Theo van Veen has proposed a "DCX Namespace", which seems like a good handle for this idea in general. A digest of the relevant postings is appended below.

There is currently no plan to discuss this at the meeting in Shanghai.

---

Date: Thu, 19 Aug 2004 10:03:23 +0200
From: Theo van Veen <Theo.vanVeen@KB.NL>
Subject: Betr.: Suggested proposals for Usage Board
To: DC-COLLECTIONS@JISCMAIL.AC.UK

---

>>> p.johnston@UKOLN.AC.UK 18-8-04 21:47:15 >>>
>- a logo/thumbnail/graphicalRepresentation property (though I don't
>think we've reached consensus yet on dropping it from DC CD AP, so we
>may submit something in the future?)

I find the fact that introducing a term in one namespace may depend on whether it is or will be introduced in another namespace quite a problem. What we need is a namespace where we can put terms that are proposed in a specific application area but is also usefull for other application areas. After

a DCMI decison it will get its final namespace. For example
you may introduce dcx:image and applications may be build to
accept such a term from any namespace. As soon as it becomes
officially dcterms:image or cld:image than applications may
be changed to accept both dcx:image and the official one as a
transition to only the official one. This allows applications
to be build without waiting for DCMI decisions.

In TEL we introduced a number of terms that we would like to keep
aligned with the outside world but we can't wait for that with
implementing applications. We introduced a tel namespace for terms we
would like to share with the outside world but I rather would have
prefered a generic namespace like dcx for this purpose.

This goes together with the concept of a generic scheme name for record
schemas that are based on a DC application profiles. In TEL we provide
a database or search in databases that may have bibliographic records
mixed with collection descriptions and the result of a search may be a
list with both types of records. They both have different record schemas
but it is difficult (in SRU) to ask for a "DC or CLD or TEL" record
schema. It is either one of them when it id not specified it is the
servers choice. I would prefer to have a generic scheme name in which I
will get both DC and CLD record schemas and it is up to my application
to ignore fields it doesn't know. In this way applications may be build
quite flexible with respect to terms that are not yet official or change
from one namespace to another.
Last year I proposed such a generic schema name (DCX) to DCMI but I do
not know the exact outcome.

---

Date: Thu, 19 Aug 2004 20:48:37 +0100
Reply-To: DCMI Collection Description Group <DC-COLLECTIONS@JISCMAIL.AC.UK>
Sender: DCMI Collection Description Group <DC-COLLECTIONS@JISCMAIL.AC.UK>
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Betr.: Suggested proposals for Usage Board
To: DC-COLLECTIONS@JISCMAIL.AC.UK

---

Hi Theo,

> I find the fact that introducing a term in one namespace may
> depend on whether it is or will be introduced in another
> namespace quite a problem. What we need is a namespace where
> we can put terms that are proposed in a specific application
> area but is also usefull for other application areas. After a
> DCMI decison it will get its final namespace. For example you
> may introduce dcx:image and applications may be build to
> accept such a term from any namespace. As soon as it becomes
> officially dcterms:image or cld:image than applications may
> be changed to accept both dcx:image and the official one as a
> transition to only the official one. This allows applications
> to be build without waiting for DCMI decisions.

We are saying that _if_ we decide a property is required for the DC CD
AP (which is not a namespace) - it was the requirement that was called
into question yesterday: do we need a
logo/thumbnail/graphicalRepresentation property? - , _then_ we will make
a proposal to the Usage Board that they should provide a URIref for the
property according to the DCMI Namespace Policy.

We don't _have_ to take that course of action: we could (as you suggest
below) decide to create a URIref for the term using a URI space owned by
another party. One of the questions we would need to ask would be
whether that other party can offer appropriate guarantees about the
persistence and uniqueness of the URIrefs assigned. We might want to ask
whether that party offered any services based on those URIrefs e.g.
whether they would be dereferenceable and what a user a might obtain on
dereferencing them, etc.

(DCMI answers these questions in its Namespace Policy document - the first one, at least - but yes the UB imposes fairly tight conditions on what terms they will assign URIrefs to)

> In TEL we introduced a number of terms that we would like to
> keep aligned with the outside world but we can't wait for
> that with implementing applications. We introduced a tel
> namespace for terms we would like to share with the outside
> world but I rather would have prefered a  generic namespace
> like dcx for this purpose.

The issue is not (IMHO) whether a namespace is "generic" or not. I don't really know what that means! ;-)

As I argued on dc-architecture last year [1], the "ownership" of a URI and the ability of someone other than the owner to discover information about the meaning of a metadata term identified by that URI are unrelated, or at least not as strongly related as the DCX proposal seemed to be suggesting.

I _do_ agree with you that there is an issue about the ability of short-term initiatives (like this WG) to issue _persistent_ names: if my project can't guarantee that they will continue to own the myproject.org domain after the end of my two year project, then I can't make promises about the persistence of http://myproject.org/terms/myterm because the domain might be bought by someone else's project.

But (from my reading of DCX!) persistence did not seem to be the _primary_ concern expressed (and above you mention the use of dcx for "temporary" names): the concern seemed to be about disclosure and discovery - and I still maintain that doesn't require everyone sharing a single "dcx namespace".

Looking back, I do recognise that the discussions of DCX on dc-architecture didn't really seem to reach any clear conclusions, and you did make a proposal, so maybe it would be worth raising the question there?

Pete

[1] http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0309&L=dc-architecture&T=0&F=&S=&P=4587

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Date: Fri, 20 Aug 2004 09:49:30 +0200
From: Theo van Veen <Theo.vanVeen@KB.NL>
Subject: Re: Betr.: Suggested proposals for Usage Board
To: DC-COLLECTIONS@JISCMAIL.AC.UK

---

Hi Pete,

As you suggest I will raise the question again on dc-architecture. The main reason for introducing dcx: is indeed because of short term initiatives providung names that do not have to be persistant and this can be expressed by using dcx:. I will clarify its practical usage in a new proposal.

Theo

http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0309&L=dc-architecture&T=0&F=&S=&P=3217

Title: What is "Simple Dublin Core"?
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/simple-dc/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

People still get confused by what constitutes "the Real Core" -- if it is the DC-15, then why is Audience excluded? As Diane has pointed out, the distinction between the namespaces and the concepts of "Simple" and "Qualified" are at best an uneasy mix of the legacy and the arbitrary.

We may not have time to discuss this issue in Shanghai, but I am putting the following email digest into the meeting packet because we should all be aware that this is an ongoing and unresolved problem. Perhaps we could discuss it over dinner?

Some possibilities to consider:

-- "The Core" is the DC-15 plus all "recommended" elements.
-- Maybe we should assign an additional "Core" status.

Diane suggests that some up-front statement of our intentions -- not a "FAQ", but something that appears prominently in our documentation -- should be formulated to clarify these issues.

---

Date: Mon, 21 Jun 2004 17:13:04 -0400
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: Re: Decision on type-specific terms
To: DC-USAGE@JISCMAIL.AC.UK

---

On scope of DCMI namespaces, I was asked a question that I couldn't completely answer.

When an element becomes "recommended" rather than "conforming" is there any implication that it becomes part of simple DC? I've always known the answer to that as being no, but what that means is that for OAI harvesting it can't be carried, since OAI harvesting uses simple DC. The question comes up mainly (I think) with added elements rather than refinements. Do we expect that the oai_dc schema cannot change if simple Dublin Core cannot change?

---

Erin Stewart <erinste@MICROSOFT.COM> originally posted on February 17 to indicate she was dissatisfied with Diane's AskDCMI text:

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Answer (to similar question): There are still 15 elements in simple Dublin Core, those elements described in the document at: <http://dublincore.org/documents/dces>; http://dublincore.org/documents/dces/. All of these terms are at the element level.

Audience is indeed a valid DC term, at the element level (see <http://dublincore.org/documents/dcmi-terms/#audience>; http://dublincore.org/documents/dcmi-terms/#audience ), but is not included in the group of 15 "core" elements, partially because those original 15 are seen as of more general use than any of the refinements and other terms approved more recently.

The DC namespaces reflect this difference:
Audience appears in the same namespace as the

refinements, not the original 15 elements. See
<http://dublincore.org/documents/2001/10/26/dcmi-namespace>;
http://dublincore.org/documents/2001/10/26/dcmi-namespace/
for the full Namespace Policy document.

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Date: Fri, 16 Jul 2004 08:28:04 -0400
From: Kelly A Green <kgreen@VRS.STATE.VA.US>
Sender: DC-CORPORATE@JISCMAIL.AC.UK
Subject: Re: "Audience"
To: Erin Stewart <erinste@MICROSOFT.COM>

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Audience is used when you use Qualified Dublin Core. That is when you use element qualifiers (Is Part Of; Has Part Of (elements of "relations"); Valid; Created; Available (elements of "Date") are examples that I am using) Personally, I don't understand how it is an Element that is available within Qualified DC is not available as a Core Element. The rest of Qualified DC includes Element Refinements, not additional Elements. I suppose that is a question for the board. Perhaps it is to allow additional elements to be added in the future?

DC Qualified is found at:
http://dublincore.org/documents/usageguide/qualifiers.shtml

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Date: Fri, 16 Jul 2004 08:53:55 -0700
Sender: DCMI Usage Board Back Channel <DC-USAGE-BC@JISCMAIL.AC.UK>
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Re: "Audience"
Comments: To: Kelly A Green <kgreen@VRS.STATE.VA.US>,
DC-CORPORATE@JISCMAIL.AC.UK
To: DC-USAGE-BC@JISCMAIL.AC.UK

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The perceived "problem" with the status of "audience" is an ongoing one and will only grow more problematic as additional elements/properties (every bit as "first class" as the original 15) are added to the DCMI namespaces. For example, at its recent meeting in Bath (UK), the Usage Board added a property named "provenance" which, like "audience," is _not_ a refinement of the original 15 ... see the Usage Board decision at the following URL:

http://www.dublincore.org/usage/decisions/#Decision-2004-01

The fact that _every_ additional DCMI recommended/conforming property lands in the terms namespace (http://purl.org/dc/terms/) and not the namespace for the original 15 (http://purl.org/dc/elements/1.1/) is not relevant to their status as fully approved/sanctioned properties of DCMI. The decision (good or bad) to maintain the original 15 elements in their own namespace and dump everything else into another was not intended (as far as I can tell) to be any sort of comment on the status of those post-15 properties. The fact that they came after NISO approval of the original 15 also seems to me to be inconsequential. Nothing prohibits the maintenance agency for the NISO standard (DCMI I believe?) from going through the process of adding "audience" to the standard. Personally, I bloody wish it would do so so that we can put to rest the incessant uncertainty as to its status.

DCMI created the Usage Board and a whole set of processes for proposing new properties and refinements to existing properties. However, it has totally failed to get the word out to the DC community that newly approved properties (i.e., properties given "recommended" or "conforming" status) are DCMI properties with DCMI legitimacy equal to the original 15. While equally legitimate, this does not mean that all applications (e.g., OAI that is hinged on the unqualified, original 15 properties) will necessarily know what to do with these properties and

may well ignore or discard them. That's a problem of these sorts of applications and not a DCMI problem. The problem of confusion will probably not improve until DCMI figures out how to better communicate to the world how DCMI terms namespaces (i.e., properties/elements) are evolving.

To find out about these Usage Board decisions regarding new properties and property refinements, check out the Usage Board "decisions on proposals" page at the URL below. Sometimes there is a bit of lag time between the decisions being announced there and their incorporation into schemas and other documentation.

http://www.dublincore.org/usage/decisions/#Decision-2004-01

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Date: Fri, 16 Jul 2004 12:01:28 -0400
Reply-To: Kelly A Green <kgreen@VRS.STATE.VA.US>
Sender: DC-CORPORATE@JISCMAIL.AC.UK
From: Kelly A Green <kgreen@VRS.STATE.VA.US>
Subject: Re: "Audience"

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Thank you for the clarification Stuart. I too wish the Usage Board would simply add approved elements to the standard.
Yes, NISO standard is DCMI, found at
http://www.niso.org/standards/standard_detail.cfm?std_id=3D725
We are Standard Z39.85 (PDF)

Title: Other (mostly old) issues
Identifier: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/other/
See also: http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/
Created: 2004-09-14
Modified: 2004-10-02 07:25, Saturday
Maintainer: Tom Baker

This is a grab-bag of issues which were at one time pointed out, have (probably) not been resolved, but are not urgent enough to push.

== Definition of dc:title. The definition of "title" should be reworded to eliminate an inherent assumption that a resource must have a well-defined, unique, formal title. (Roland, Oct 2001)

== Qualification of dc:format. 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 to clarify something like the following? (Andy, Feb 25 2002) :
1) genre - the representational class of the resource (DC.Type)
2) medium - the physical carrier of the information (DC.Format/medium)
3) encoding - the way in which the data is encoded on the medium (DC.Format/IMT)

== RDDL Core. 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 this a problem? (Oct 2001).

== Use of Dublin Core for non-DLO resources. 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? (Andy, Jan 2002; Liddy Nevile in Dec 2002) Diane thinks it's useful to have a consensus on this, but we might want to have someone write a discussion starter couple of pages on this before we meet; there's a lot of history to this one.

== DCMI Type Vocabulary and Dublin Core scope. If DCMI wants to say that it is *not* acceptable to describe non-DLOs using DC metadata, 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? 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)

== Guidelines on using Dublin Core for non-DLO resources. 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)

== Encoding schemes for dc:relation and dc:source. Should all encoding schemes for Identifier hold also for Relation and Source? Do we need to capture this in our documentation? Diane thinks we should first agree whether we want to do

something similar to the creator/contributor thing as a precursor to considering this question.

== Scope of dc:language. Language should not be restricted to natural languages. Languages in the sense of computer science can carry intellectual content, but the "best practice" assertion seems to exclude that (Roland, Oct 2002).

== Comment for dc:subject. The Comment for dc:subject could be read as condoning usage such as "<dc:subject>252</dc:subject>". Roland strongly disagrees with this and thinks it needs clarification (Roland, Oct 2002). The comment currently reads:

> 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.

== Applicability of encoding schemes to Element Refinements. According to the term declaration, W3CDTF and Period only apply to Date, not any of the Date refinements. Should they apply to Date AND all its refinements (both recommended and conforming)? Diane points out that this is really the same question as in Source and Relation.

== 2002-11-05: Relationship between dc:contributor/1.0 and dc:contributor/1.1 http://www.jiscmail.ac.uk/cgi-bin/wa.exe?A2=ind0211&L=dc-usage&T=0&F=&S=&P=54

== 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 need 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??

== The OASIS DocBook Candidate Release makes a point of being compatible with Dublin Core _1.0_: http://www.oasis-open.org/committees/docbook/docbook-4.2-CR1.html.

== "Related to this, I know the IMT encoding scheme is only valid for the Format element and not the medium element refinement [1]. Do we have a similar issue with W3CDTF - the schema makes it valid only for Date and temporal, but not any of the Date element refinements (created, et. al.). I guess this is a reflection of how the usage of W3CDTF is defined in the DC Terms documents. Though, looking back at the DC Qualifiers document, it wasn't clear whether an encoding scheme valid for an element is also valid for its element refinements - as discussed [1] IMT isn't intended for use in medium but surely W3CDTF is intended for use in created, modified, etc.?

== Carol van Nuys of the Norwegian Nasjonalbiblioteket had trouble translating the comment for Alternative (Title), which reads: "This qualifier can include Title abbreviations as well as translations." She assumes that it is the *value* of the qualifier which can include Title abbreviations, but the wording is a bit imprecise and, to some people, seems to actually say something else.

== Status and documentation of DCMES 1.0 elements:
http://www.w3.org/Search/9605-Indexing-Workshop/ReportOutcomes/S6Group2.html:
Shows identifier as being http://purl.org/metadata/dublin_core_elements#title,
which does in fact resolve to DCMES 1.0 document.
Also, the DCMI Metadata Terms document
http://dublincore.org/documents/dcmi-terms/ does not show
1.0 terms (but neither did current-elements document).
Term-History (not yet available) shows 1.1 elements replacing 1.0.
Likewise, http://dublincore.org/documents/1999/07/02/dces/ "replaces"
(actually supersedes) http://dublincore.org/documents/1998/09/dces/.