

Title: DCMI Usage Board meeting agenda, Bath (UK) -
Supplementary material
Modified: DATESTAMP
Maintainer: Tom Baker
Latest version: [h ttp://www.bi.fhg.de/People/Thomas.Baker/ISSUES/SUPPLEMENT/](http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/SUPPLEMENT/)
See also: [h ttp://www.bi.fhg.de/People/Thomas.Baker/ISSUES/](http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/)
Description: Evolving agenda of topics for the next Usage Board meeting.
The main PDF packet for the meeting was posted on 2004-02-25.
Materials produced after 2004-02-25, listed here, will be
put in a supplementary packet to be posted on 2004-03-11 at
[h ttp://www.bi.fhg.de/People/Thomas.Baker/Bath-meeting-supplement.pdf](http://www.bi.fhg.de/People/Thomas.Baker/Bath-meeting-supplement.pdf).

TOPIC 2. AskDCMI
<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/CACHE/AskDCMI-comments.txt>

TOPIC 3: Registration of Vocabulary Encoding Schemes
<http://wip.dublincore.org/schemes/index.html>
<http://www.lub.lu.se/~traugott/drafts/vocab-scheme-Jan04.html>
<http://www.lub.lu.se/~traugott/drafts/vocab-guide6.html>

TOPIC 6: DCMI Abstract Model
<http://www.ukoln.ac.uk/metadata/dcmi/dc-usage/am-issues/>
<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/CACHE/Model-comments.txt>

TOPIC 8. PBCore Metadata Dictionary
http://www.siderean.com/dc2003/603_paper81.pdf
<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/CACHE/PBCore-comments.txt>

TOPIC 11. Proposals for dc:rights-related terms
<http://www.openarchives.org/documents/OAIRightsWhitePaper.html>

TOPIC 12. MARC Relator terms and dc:contributor
<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/CACHE/Relator-codes.html>
<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/CACHE/Roles-comments.txt>

TOPIC 16. Other issues
<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/dublincore-org/>

APPENDIX Reference materials
<http://dublincore.org/usage/meetings/2004/03/2003-09-27.Minutes-seattle-final.txt>
<http://dublincore.org/usage/documents/process/>

Date: Mon, 8 Mar 2004 16:32:52 -0500
From: Diane Hillmann <dihl@CORNELL.EDU>
Subject: Some comments on Tom's AskDCMI issues
To: DC-USAGE@JISCMail.AC.UK

Diane's comments on Tom's AskDCMI concerns:

> -- When questions come into my mailbox but not answers,
> I cannot know which ones have been answered without going
> to the Web, nor can I accumulate my own archive of answers,
> meaning I have to search the database on the Web to know
> whether a similar question has been answered.

Not sure whether this is a generalized need or a "Tom-need"?
In fact, someone (the Administrator) does know what questions
have been answered, and is tasked to keep track of that.
I don't think the writers of the software ever considered
that someone might want to do what you suggest, Tom. ;-)
But though it may sometimes be useful to search the corpus to
see if a question has been answered, I suspect most experts
don't do that.

The process of turning these answers into FAQs is not trivial.
I did a project at work where I had someone go through and
characterize email based answers and do some initial editing
to create a FAQ, and though it worked it was a lot of effort.
We could do it, but it would need a considerable investment of
time on someone's part. Generally each question has a specific
context and to be turned into a general FAQ would require some
(if not considerable) editing.

> -- Not being able to get an overview of what has been written,
> I am uneasy with the notion of a growing set of overlapping
> answers to overlapping questions, and that some of these
> answers may in fact be controversial, or out-of-date,
> or at any rate need to be maintained.

Right now there are only a few experts that can answer
questions without being reviewed by the Administrator. These
are not people who write controversial answers. Because of the
"experts" the answers are probably less controversial than
answers gleaned through questions on DC-General. They are
not easily maintained, it's true, but to a certain extent
how "easy" depends on your definition of "maintenance."
Out-dated answers could simply be deleted, for instance.

Although there are indeed some overlapping questions and
answers, I don't think that the problem is particularly bad,
yet, primarily because of the "context" mentioned above.

> -- It is not clear to me whether the goal is to accumulate a
> body of best practice and use that corpus to refine and
> improve our collective sense of best practice over time.
> If the goal is not to accumulate knowledge, then the AskDCMI
> work feels like a relentless servicing of user requests.
> If the goal is to learn from the process, then it is not
> clear to me how we can capture that learning. For example,
> if the answers were being cited and summarized in a
> single, growing FAQ file that we could periodically
> download and keep on hand, then one could presumably

> answer alot of the new questions simply by pointing to
> a specific section of the FAQ. This would also have
> the welcome side effect of improving the quality of
> <http://dublincore.org/resources/faq/>, which does indeed
> need to be revised.

The DCMI Official FAQ is clearly outdated and should be re-written, or deleted. I had hoped to incorporate some of that into the AskDCMI knowledgebase but haven't had the time to do it. If someone were to write the sort of FAQ Tom suggests, the DCMI experts would not need to be answering the "repeat" questions, probably the administrator could refer questioners to the FAQ without the questions even appearing for experts. However, the trick is to get that FAQ written.

I think there are several goals, not the least of which is a servicing of user requests. At the very basic level, the questions asked let US know where the holes in our documentation are, and what implementers still don't understand. The fact that we often don't respond quickly or well to that information is another issue. We are capable of generating lots of good ideas on how to improve things, but haven't been as good on figuring out where to expend our limited resources.

> -- If the answers are not being captured or summarized in such
> a central document, it is not clear to me what longer- term
> responsibility is being implicitly assumed (and by whom)
> for reviewing and maintaining the many separate answers.
> In principle, does an answer have an expiration date?

Well, I'm not at all sure we could have even stated the question last year, so in some ways asking how we will maintain this is progress. I don't know that answers explicitly have an expiration date, but date might be one way to focus review.

> -- It is not clear to me how AskDCMI relates to DCMI's
> open mailing lists, where asking the same question might
> lead to a discussion instead of a straightforward (but
> possibly simplistic or misleading) answer.

I think they serve quite different purposes. Although sometimes good discussion comes from a question asked, just as often the result is a clueless answer being given that then needs to be diplomatically refuted--thereby confusing folks even more. When what is needed is a broad range of opinion on an issue that is not a "best practice" question, then the mailing lists are great. When the question is, how can I do it right?--the mailing lists may not be the best resource, mostly because we have no way of defining for new implementers who is competent to speak. I have more than once steered AskDCMI questioners to the list, when they ask the sort of question that should be asked on lists.

> I pose this concerns in a constructive spirit because I would
> very much like to see this service work. On the other hand,
> AskDCMI is not a service of the Usage Board, so I am uncertain
> how far this discussion should go. In Bath, we could perhaps
> consider the following:

> -- A printout (if such can be generated) of the entire corpus
> of answers and rough analysis of questions by type.

Not sure what kind of type you're referring to here. I suspect we each would characterize them differently (a common problem, as we know). I'd suggest that we need a better feel for our goal and priorities before anyone proceeds with this task.

> -- A general discussion of current plans and future
> developments in light of the comments above.

Stuart has agreed to discuss future plans for the software at the meeting. I think your question about whether AskDCMI is a service of the UB is an important one. To some extent, I think one of our problems is that we have not managed to garner the participation of the larger Advisory Board in this effort. I think AskDCMI is much better conceptually understood at that level.

Date: Wed, 10 Mar 2004 06:47:26 +0100
From: Thomas Baker <thomas.baker@bi.fhg.de>
Subject: Re: Some comments on Tom's AskDCMI issues

Diane wrote:

> Not sure whether this is a generalized need or a "Tom-need"?
> In fact, someone (the Administrator) does know what questions
> have been answered, and is tasked to keep track of that.
> I don't think the writers of the software ever considered
> that someone might want to do what you suggest, Tom. ;-)

The questions appear in the mailbox when they are asked, but the answers do not. If the answer could appear in my mailbox as a reply to the question, I would see "Aha, it has been answered, I don't need to do it then." I would also see the text of the answer (and possibly learn something, or even disagree) without having to look on the Web.

> The process of turning these answers into FAQs is not trivial.
> I did a project at work where I had someone go through and
> characterize email based answers and do some initial editing
> to create a FAQ, and though it worked it was a lot of effort.
> We could do it, but it would need a considerable investment of
> time on someone's part. Generally each question has a specific
> context and to be turned into a general FAQ would require some
> (if not considerable) editing.

I propose the following:

- 1) We reduce the FAQ to 10-20 broad questions.
- 2) We then determine who should be responsible for maintaining the answer to each question. Two obvious candidates are:
 - the Directorate, for questions related to DCMI as an organization;
 - the Usage Board, for questions related to DCMI metadata terms (the bulk of the questions);

It is not clear to me who would best take the questions related to syntax or software tools.

- 3) Supposing the questions were found to fall neatly into three

categories -- e.g.: Semantic, Organizational, and Implementational -- then the FAQ could perhaps be divided into three parts and assigned to three jurisdictions: Usage Board, Directorate, and [Other].

- 4) To each question in the Usage Board area, the head of the UB would assign a shepherd. Each UB shepherd of a FAQ question would be responsible for reviewing the FAQ's answer for freshness and currency before each UB meeting. Each UB member would be responsible for reading (i.e., re-reading) the entire UB section of the FAQ before each meeting. At each meeting, a vote would be held to explicitly approve the UB section of the FAQ.
- 5) For the purposes of citation, each question in the FAQ will have a "handle" (e.g., <http://dublincore.org/faq/#whatarequalifiers> or <http://dublincore.org/faq/whatarequalifiers/>). This handle would serve both as a resolvable pointer to the answer for a question and as an Identifier citable, for example, in answers to queries on AskDCMI. To adopt this approach one would need to consider the following:
 - a) The <http://dublincore.org/faq/#whatarequalifiers> style of identifier implies that the FAQ is a single document with HTML anchors. Advantage: Click on the FAQ and send the whole thing to the printer. Disadvantage: the Webmasters need to cut-and-paste updated text into a master document (unless one were to use "includes" to "pull in" the answers from an external file?).
 - b) The <http://dublincore.org/faq/whatarequalifiers/> style of identifier implies a directory structure in which each answer is a separate file in a separate directory. Advantage: the shepherd edits a single file which is simply dropped into the directory structure.

> Out-dated answers could simply be deleted, for instance.

It is not clear to me what function "old answers" have in AskDCMI. Ideally, one would copy the answer written by an AskDCMI expert to the shepherd of a DCMI FAQ question and that work would lead to the improvement in the DCMI FAQ. If that were the case, we would want to explicitly encourage people to consult the DCMI FAQ instead of searching through old answers on AskDCMI.

As for pruning out-dated answers, it seems to me that determining the freshness of an answer on a case-by-case basis would require significant effort on the part of AskDCMI administrators. It would seem more efficient simply to give AskDCMI answers a fixed expiration date, after which they would either become unavailable or move to an explicitly "archival" section of AskDCMI.

> If someone were to write the sort of FAQ Tom suggests,
> the DCMI experts would not need to be answering the "repeat"
> questions, probably the administrator could refer questioners
> to the FAQ without the questions even appearing for experts.
> However, the trick is to get that FAQ written.

I think the answer lies in partitioning responsibility for

the FAQ and assigning shepherds.

> I think there are several goals, not the least of which
> is a servicing of user requests. At the very basic level,
> the questions asked let US know where the holes in our
> documentation are, and what implementers still don't
> understand.

Agreed.

> Well, I'm not at all sure we could have even stated the
> question last year, so in some ways asking how we will maintain
> this is progress.

Yes.

> > -- A printout (if such can be generated) of the entire corpus
> > of answers and rough analysis of questions by type.
>
> Not sure what kind of type you're referring to here. I suspect
> we each would characterize them differently (a common problem,
> as we know). I'd suggest that we need a better feel for our
> goal and priorities before anyone proceeds with this task.

<http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/CACHE/AskDCMI.txt>
is perhaps good enough as a basis for discussion. By my
reading of the questions, I should think that a good FAQ should
be able to provide answers to "85%" of the AskDCMI questions,
so that on AskDCMI an expert could in many cases answer an
question with just one or two sentences plus a pointer to a
specific answer in the DCMi FAQ.

> To some extent,
> I think one of our problems is that we have not managed to
> garner the participation of the larger Advisory Board in this
> effort. I think AskDCMI is much better conceptually understood
> at that level.

Conceptually, I think the way forward lies in solving the
problem of maintaining an excellent FAQ. The FAQ is something
for which we can reasonably expect an AB member to read and
provide feedback.



Dublin Core Metadata Initiative

Making it easier to find information.

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Vocabulary Scheme Registration

[Help](#)[Search](#)[Submit](#)[Admin](#)

The Dublin Core Metadata Initiative recognizes the importance of controlled vocabularies (e.g., thesauri, classification systems, taxonomies, ontologies, etc.) and encoding schemes (e.g., date encoding schemes) to resource communities, and the degree to which their use improves the interoperability of metadata.

This application provides an interface for registering vocabulary and encoding schemes, and for searching for previously registered schemes. The application's goal is to promote metadata interoperability and improve semantic understanding through the common use of terms from established, publicly recognized controlled vocabularies and encoding schemes. The application currently supports the registration of subject schemes only.

Please refer to the following sections for additional information:

- [Overview](#)
- [Searching for existing schemes](#)
- [Submitting a new scheme](#)
- [Application administration](#)

Overview

General

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

Additional help is provided in the [Vocabulary Guidelines](#)

Registration Process

The scheme registration process is open to everyone and schemes can be submitted by completing the Web submission form included with this applicaiton ([see figure 3](#)). The submission process consists of the following steps:

1. Schemes are entered using the provided form. **Important:** this action places your scheme in an 'entered' status. Only schemes with a 'pending' status are considered for registration. The following step provides information regarding how to promote an 'entered' scheme to 'pending' status.
2. Once a scheme has been entered an email message is generated and sent to the submitter email address provided on the Web form. This message includes a URL that must be used to complete the scheme submission. Normally this can be accomplished by clicking on this link. **Note:** This action must be taken within 24 hours of the scheme being entered, and schemes are not considered for registration until this action has been taken.
3. The DCMI Usage Board reviews pending submissions using a "fast track" decision process and either approves or rejects scheme submissions. Submitters are notified, via email, of this action.

Searching for existing schemes

The search component is used to search for schemes that have a status of 'registered' or 'pending'. There are two primary interfaces to the search component; a search form and a drop-down selection box that can be used query the database for all schemes with a particular status ('pending' or 'registered').

The search form enables users to search for schemes that match specific words or phrases. The form supports both case-sensitive and case-insensitive searching and enables users to restrict their search to schemes that match:

- An exact word or phrase
- At least one of the words provided
- All of the words provided

Both the search form and the drop-down selection box will produce a summary listing of schemes that match the search criteria. The summary display (figure 1) includes the acronym, scheme name and scheme status.

Summary of all registered schemes

Items found: 1

Acronym	Scheme Name	Status
DDC	Dewey Decimal Classification	Registered

Figure 1: Summary display

Click on any of the acronyms listed to produce a detail listing of that particular scheme. Figure 2 is an example of the detail listing produced by clicking on the 'DDC' acronym in the summary listing above:

Detail for scheme: DDC

Full Name of scheme	Dewey Decimal Classification
Suggested name (acronym)	DDC
Maintenance Agency	OCLC Forest Press
Maint. agency contact name	Joan S. Mitchell
Maint. agency contact email	dewey@oclc.org
Submitter email	wagnerh@oclc.org
Online access point	Web Dewey in CORC (http://purl.oclc.org/corc/)
Access information	http://www.oclc.org/fp/products/index.htm
Additional information	License required
Domain(s) & extent of usage	Most frequently used universal classification system for library OPACs and national bibliographies; limited recent usage in web catalogues etc.
Associated element or qualifier	subject
Date registered	2002-11-05 10:59:25-05
Last modified	2002-11-05 10:59:25-05
Status	Registered

*Figure 2: Detail display***Submitting a new scheme**

Scheme submission is accomplished using the Web submission form. Complete the form and press the submit button.

Full name of scheme *	<input type="text"/>
Suggested name (acronym) *	<input type="text"/>
Maintenance agency *	<input type="text"/>
Maint. agency contact name *	<input type="text"/>
Maint. agency contact email *	<input type="text"/>
Submitter email address *	<input type="text"/>
Online access point	<input type="text"/>
Access information	<input type="text"/>
Additional information	<input type="text"/>
Domain(s) and extent of usage	<input type="text"/>
Associated element or qualifier	<input type="text" value="subject"/>
* indicates required fields	<input type="button" value="Submit"/> <input type="button" value="Reset"/>

Figure 3: Scheme submission form

Fields marked with an * are required. Some fields, such as 'Full name of scheme' and 'Suggested name (acronym)' have field-level help available. Click on the field name for additional information regarding that field. Additional guidelines regarding the form can be found in the [Vocabulary Guidelines](#).

Upon completing the form, providing there were no errors or missing fields, you will be presented with a confirmation screen indicating your submission has been accepted and given a status of 'entered'. A confirmation email will be sent to the submitter email address provided on the form. This email includes a URL which must be used to confirm the scheme submission. Doing so will change the scheme status from 'entered' to 'pending', and make it eligible for registration.

Note: you must confirm your scheme submission, using the provided URL, within 24 hours of the scheme being entered. Only 'pending' schemes are considered for registration.

Application administration

This function is restricted to authorized DCMI administrators.

Valid XHTML
1.0!

Please direct questions, comments and suggestions to: webmaster@dublincore.org

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Vocabulary scheme registration, January 2004

Status

- Development "finished" Dec 2002
- Dependency from "large" DCMI registry could lead to unexpected failures (Harrys message)
- Test period carried out during May 2003 (6.-19.5., prolonged)
- *Seattle decision: all action items on this topic from Ithaca remain to be completed. Action items from Seattle not acted upon yet*

Demo

- Submission ?? (show EIC)
- Editing and registration: ASC; (use Tom's list, more detailed than TKs)

Testresults

- Test process and results
 - Prolongation and reminders
 - AB: Ann Apps; Tom Pick; message from Joseph Busch
 - UB: Andy, Diane, Traugott: incl. registration. Rebecca (submission). Tom (test)
 - externals on invitation: FAO (2); Canadian NL (2); Netlab (2); SUB (0)
 - comments: Gauri, Jessica, Deane, Andy, Diane, Tom, Roland (on issues). no comments on user interface and help or functions like search.
 - 4 registered schemes: DDC, AGROVOC, JACS, NASAT. 9 pending schemes.
- System problems, bugs
 - No confirmation message after submission? (FAO; Tom?)
 - Wrong error message, does'nt allow to confirm submission with older browsers (Netscape)
 - Hyperlinked URL in confirmation message to submitter sometimes corrupted. Record appears anyhow but with misleading error message (commas, Jessica)
 - Reset does'nt work when trying to delete a test record. Impossible: it needs to be treated as rejected. (TK)
 - Admin module: bug (new password not recognized). Hack exists
 - No logout after registration and other actions (Diane). *Ithaca: Provide logout*
 - Gauri did'nt receive a registration message after TK registered AGROVOC
- Submission form
 - Help in a separate window should be provided for all fields (Andy)
 - Misunderstanding of requested information: Access information (Harry refused to add details)
 - Element titles: Suggested name (acronym) (changed by Harry). Full name of scheme.
 - Boxes not large enough, e.g. acronyms; comments (Andy, Jessica).
Cut and paste difficult when just one line on display. text lost (Jessica)
 - Preview and editing of input not possible after first input (Jessica, Deane and others. Earlier denied by Harry). *Confirmed by UB at Ithaca.*
 - Proposed new elements in form: language of scheme (Jessica). Maintainers scheme ID (URL) (FAO) etc.
 - dc:subject instead of subject in pulldown list (Andy). Changed by TK in Nov 02.
 - Guidelines document OK? User interface, help etc. OK?
 - *Seattle Action Item 13: Traugott to draft document setting out guidelines for the creation of URIs for encoding schemes.*
- Registration process
 - after Edit, Update etc.: top line wrong "submit a new scheme"
 - after Edit/update: no link to next step, same scheme view comes back. No acknowledgement. Need to Search:Pending: select: to get Register button
 - after Registered: no acknowledgement

- Scope of registry
 - Other encoding schemes, apart from subject vocabularies (Deane: audience and type schemes. FAO. Rebecca.)
 - Add maintainers scheme/namespace URL (FAO)
 - Register usage in local metadata profiles (FAO)
- Further requirements and wishes
 - Automatic communication with the registry (Deane)
 - Decentralised scheme registration? (Canada)
 - Updates and editing at a later stage by a maintainer/submitter(FAO)

Issues

- Process
 - Process document vs Vocabulary guidelines document (should there be only one common document? Tom)
 - Update of the UB process document necessary (Diane: difference in status -obsolete is not an option in Reg.; with Toms full list)
 - *Action item (Ithaca): Diane and Stuart: Make necessary updates to the UB process document*
 - *Action item (Ithaca): Tom and Diane: Draft new document that explains such things as "good neighbour" policy, what the process involves, the aims of the registration service, registration help etc. Prepare standard email to maintainers.*
 - Expected efforts by UB members for checking and verifying before registration: how to limit? Archiving documentation? (Tom, Roland)
- Namespace and Legal issues
 - Will DCMI/the registry provide a namespace URL for the schemes? (FAO) Which? (Namespace policy). Possible conflict with maintainers? Do we express preferences for one of the namespace URLs? (Tom) cf. discussion Dec 2002
 - Encoding scheme terms namespace vs. Encoding scheme name namespace (Dec 2002). Do we add maintainers namespaces into the registry?
 - *Does DCMI provide a separate namespace for vocabulary schemes or will they go into DC terms?*
 - *Does the term URI need to be persistent and unique, with a date stamp?*
 - Possible conflict with maintainers about the name/acronym (Tom; Rebecca; FAO)
 - *Decision about namespace rules needed: Schemes can have namespace URIs already, they can get it after registration by DCMI or never. Who provides namespaces/URIs for the schemes today: the scheme owners, DCMI, the metadata implementers (ex.: LC's marc.sources/aat)?*
Ithaca: DCMI assigns scheme URI and lists scheme URI's created by vocabulary owners. If this is the case, a "same as" relationship between the two is declared. Ex.: /dc/schemes/AGROVOC same as www.fao.org/AGROVOC/
 - Do we have the right to give a name to something someone else runs? Is it that we are doing? How do we handle acronyms which might be trademarks? Do we need to ask all owners for acceptance and what are the consequences of such a need? Do we need an escape clause in the DCMI namespace policy?
 - Clarification on the legal issues surrounding encoding scheme registration (Action item: Tom to ask directorate to advise UB on their position)
Seattle Action Item 14: Tom to remind Stu to seek advice from OCLC lawyers regarding legal issues surrounding encoding scheme registration. DONE Dec. 2003
- Terminology
 - "Encoding scheme" as term type in dc terms vs as a full vocabulary maintained by others (Tom). Roland: rdf Class, subclass vs. owl:equivalent class, sameAs
 - Two types of encoding schemes: vocabulary vs. syntax (TK; Andy; Tom; Roland)

Further steps

- More testing?
- What is realistically to be expected to be improved? How to work with Harry continuously?
- LCSH, UDC, MeSH still registered as DC terms. Move to vocab. registry?
- *Action item (Ithaca) Tom: Document the XML output formats that are wanted from the registration tool*

- *Action item (Ithaca) Traugott: List of priorities for enhancements/changes to the scheme registration tool to be submitted to Makx*
 - *Action item (Ithaca): Traugott asks Paul Miller to create closed Jiscmail list for archiving of all email communication between UB/DCMI and the scheme owner/maintainer*
 - *Seattle decision: UB agrees that it must proceed with this proposal.*
 - Complete registration of FAO and Canadian NL schemes.
 - Start date? Public announcement. *after Seattle: Feb 1st, 2004*
 - *Seattle decision: UB will consider adopting IETF's InfoURI if and when this is finalised.*
 - Tom's mail 18.12.: "2) Working with other communities for feedback to our policies and methods in the light of first experience and for influencing an emerging set of conventions and methods for solving the problem of identifying vocabularies more generally. In addition to pursuing NSF support for some meetings, Traugott suggests we specifically aim at working with the NKOS effort."
-

Changes to the tool (Harry)

1. Submission form

1. Help in a separate window should be provided for all fields (Andy)
2. Some more text in the template is needed to prevent misunderstanding of requested information: e.g. Access information
3. Element titles, corrections: Suggested name (acronym) (changed by Harry). Full name of scheme. They need to be in sync between the template, the Guidelines and the help text of the tool.
4. The input boxes need to be large enough, e.g. reg. acronyms; comments (Andy, Jessica).
Cut and paste is difficult when just one line is on display. Text is lost (Jessica)
5. Preview and editing of input needs to be possible after the first input (Jessica, Deane and others. Confirmed by UB at Ithaca).
6. Add the following new element in the submission template: Maintainers official scheme ID (format: URI) (FAO)

Harry wrote 2.12. 2002, however:

```
> 2) We probably need to introduce an additional element to our vocabulary
> template/database records: "Namespace provided by the owner" (of the vocabulary).
> It is necessary in the, at the moment, rare case, that the owner of a
> vocabulary provides a formal namespace for it's vocabulary.
> This is different from the URL for a not machine readable
> web version of the vocabulary.
>
> Any views?"
```

Yes. I recommend we don't make a change of this size right now, at least not for something described as a 'rare case'. Of course we can do it, but it will require a change to the database, the submit and update forms, and the programs that process those forms. It will delay implementation. Unless it is absolutely needed, let's wrap up the above changes and implement the application so it can be used.

2. Registration process

1. Add elements (in database and display version of the template):
(third): Scheme URI assigned by DCMI
(fourth): Scheme URI assigned by the maintainer
2. Improvements reg. the following:
 1. after Edit, Update etc.: change the wrong page title "submit a new scheme"
 2. after Edit/update: link to next step (same scheme view comes back). Provide acknowledgement. To get a Register button one now needs to take the following steps Search:Pending: select:
 3. after Registered: provide acknowledgement

3. Texts

1. Add text to the tools help page and the Guidelines document reflecting the Seattle decision: "In the first instance registration will be on the initiative of scheme owners (Andy's closed model). This requires that the owner does the registering using either their own URI or a DCMI assigned URI. However, where schemes have existing URIs such schemes could be registered at the request of implementers." (with Traugott)
2. Check and edit all other texts in the tool (with Traugott)

4. Output of the tool

1. The database needs to periodically output a listing of new vocabulary encoding schemes in a form that can automatically be merged into the raw UB data (currently in XML) used for generating RDF schemas and web pages. Create workflow for that process (Tom).

5. Other actions

1. Provide logout after registration and other actions (Diane; requirement approved by the Ithaca meeting).
2. Some of the changes requested Sep 05, 2002 (vocabtool-changes) might be prioritized higher now.
3. Harry told us: Dependency from "large" DCMI registry could lead to unexpected failures. We need a description of what we have to expect.
4. Seattle Action Item 15: Questions to be posed to Harry, as part of request for updates and changes, regarding authentication and whether existing authentication facility is robust enough.

Other tasks before production starts

- Action item (Ithaca): List of priorities for enhancements/changes to the scheme registration tool to be submitted to Makx and Stu (Traugott)
- Update Guidelines document and add advice about URI format (Traugott)
- Invite further comments on the user interface and the help texts (Usage Board).
- Decision about the DCMI namespace for vocabulary names (Directorate)
Tom's mail 18.12.: "1.4) [Item added by Tom after the phone call]: We need to revisit the question of a separate "schemes" namespace, which means revising our documentation and policies (e.g. Namespace Policy). If this step involves creating new schemes-namespaces URIs for existing Encoding Schemes we would also need to document this fact and clarify the implications for the RDF schemas."

LCSH, UDC, MeSH are still registered as DC terms. Move to vocab. registry?

- Action item (Ithaca): Traugott asks Paul Miller to create closed Jiscmail list for archiving of all email communication between UB/DCMI and the scheme owner/maintainer
- Decide start date; prepare public announcement.
- Short text: Why is registration and identification in the interest of vocabulary owners (Stu?)
- Tom's mail 18.12.: "1.6) We need to articulate a policy for linking to non-DCMI URIs created for vocabularies to which DCMI URIs have already been assigned."

Last updated: 2004-01-19

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

DCMI vocabulary registration tool <http://wip.dublincore.org/schemes/>

NKOS vocabulary registration work <http://nkos.slis.kent.edu/>

Guidelines for registration of Vocabulary Encoding Schemes

Tom proposes:

The Guidelines should start by saying what "Vocabulary Encoding Schemes" are. For example:

In DCMI's terminology, an Encoding Scheme is a type of metadata term designating "contextual information of parsing rules that aid in the interpretation of a term value" [DCMI-PRINCIPLES]. A Vocabulary Encoding Scheme is a metadata term designating a controlled vocabulary (e.g., a thesaurus, classification system, taxonomy, ontology, or word list). For example, the DCMI encoding scheme "LCSH" -- also known by its Uniform Resource Identifier URI, <http://purl.org/dc/terms/LCSH> -- can be used in instance metadata to indicate, for example, that the value "China - History" is taken from the Library of Congress Subject Headings.

[DCMI-PRINCIPLES] <http://dublincore.org/usage/documents/principles/>

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

Tom proposes:

"This text is confusing: It says communities need to select "vocabulary encoding schemes" from "controlled vocabularies", but it should say that communities need to select "values" from controlled vocabularies. I also think it is confusing to bring "syntax encoding schemes" into the picture at this point. One could perhaps revise it as follows:

**DCMI recognizes* that different discourse and practice communities have legitimate, particular needs to be able to use an array of recognized controlled vocabularies in their instance metadata. To promote interoperability, DCMI creates and maintains Vocabulary Encoding Schemes to designate these recognized vocabularies. Practically speaking, a Vocabulary Encoding Scheme is identified by a Uniform Resource Identifier (URI). Organizations other than DCMI are starting to designate their own vocabularies with their own URIs as well. DCMI maintains Web pages and a Web-based database ("registry") to document such URIs -- both DCMI-maintained and non-DCMI-maintained URIs -- for use by metadata creators.*

The process of proposing a vocabulary for designation with a DCMI-maintained Vocabulary Encoding

Scheme or for reporting the existence of formal URIs maintained by other organizations is known as "registration". These guidelines describe how a proposal for registration is formed and submitted."

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

Tom proposes:

"In light of the preceding paragraph, this could be tightened as follows:

At present, DCMI is soliciting the registration of vocabularies for use with the Dublin Core element Subject -- the element for which the need for encoding schemes is most urgently felt -- though it may in future use the registration mechanism for other elements as well. "

1. General

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

Tom proposes instead: "I know we discussed this first point, but I still find it confusing because the Usage Board does in fact "approve" things called "vocabulary encoding schemes". Rather, I suggest: DCMI does not provide official "approval" for, nor does it "recommend" the use of, particular controlled vocabularies. Rather, it provides metadata terms that can be used to designate formally maintained vocabularies in Dublin-Core-based instance metadata."

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

2. Registration process

- 2.1 For the time being, vocabulary owners and maintainers are invited to propose a scheme for registration by submitting the required information to the web form at: <http://wip.dublincore.org:8080/schemes/submitServlet>. Institutions who maintain a stable registry containing their own vocabularies in a considerable number can agree with the DCMI Usage Board on a simplified submission process.

For the time being, metadata implementers who do not own or maintain the vocabulary can propose a scheme for registration only if the owners/maintainers have established a unique name in URI format for that scheme.

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

criteria listed below.

- 2.3 For each scheme, the registrant should provide the following information:
 - Full label of the scheme
 - Suggested name (acronym)
 - Maintainers official scheme ID (format: unique, persitent URI)
 - Maintenance agency
 - Maintenance agency contact person
 - Maintenance agency contact email address
 - Submitter email address (if different from the maintenance agency contact email address)
 - Online access point (URL if applicable)
 - Access information (URL or physical address)
 - Additional information about the scheme
 - Domain(s) and extent of usage
 - Associated element(s) or element refinement(s)

definitions to be added

Example

Full label of the scheme	Dewey Decimal Classification
Suggested name (acronym)	DDC
Maintainers official scheme ID (format: URI)	http://www.oclc.org/vocabularies/DDC
Maintenance agency	OCLC Forest Press
Maintenance agency contact person name	{ Name of current editor or contact person }
Maintenance agency contact email address	dewey@oclc.org
Submitter email address	{ Email address of submitter if different than the maintenance agency contact person }

Online access point	Web Dewey in CORC (http://purl.oclc.org/corc/)
Access information	http://www.oclc.org/fp/products/index.htm
Additional information about the scheme	License required
Domain(s) and extent of usage	Most frequently used universal classification system for library OPACs and national bibliographies; limited recent usage in web catalogues etc.
Associated element(s) or element refinement(s)	Subject

- 2.4 Proposal s that adhere to the guidelines below will be given the status "Registered" and are included in the DCMI Registry. The registration tool contains schemes with the status "Registered" or "Rejected".

3. Guidelines

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

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

- 3.2 **Labeling of the schemes**

- 3.2.1 The scheme label should be the official title the vocabulary is known under. The name of the organization maintaining or owning the scheme is rarely sufficient since it does not unambiguously stand for the vocabulary alone.
- 3.2.2 The scheme labels and acronyms are only appropriate for an unchanged use of an official version of the scheme. Unofficial versions, modified versions, unofficial translations and similar should not use the official label or acronym but apply a local one (e.g. based on the service, project or provider. Ex.: The DutchESS service is using a local variant of the BC classification. It should be called DutchESSC or DutchESS-BC if it is really close to the official scheme).

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

- **3.3 Acronyms to be used as scheme names**

- 3.3.1 The acronyms must be unique and start with an initial upper case. Every effort will be made to maintain the short name proposed by the maintaining agency. In case of collisions, a suitable alternative will be chosen in consultation with the maintaining agency.
- 3.3.2 Existing official acronyms or short names should be used as acronyms when possible.
- 3.3.3 Official translated versions receive an acronym where a standard language code is added, e.g. DDC-fr. This is necessary since translated versions are rarely fully equivalent. Other translations, if registered, will be assigned an alternative acronym.

- **3.4 Specification of scheme versions**

- 3.4.1 DCMI will register multiple versions of schemes if they appear to be important and/or it is requested by a user applying for registration.
- 3.4.2 Versioned schemes should be registered and used when there is a considerable probability that databases exist which apply terms and classes belonging to older versions of the scheme.
- 3.4.3 The official version of the scheme used should be indicated like in the following examples: DDC21, DDC21ab-fr (abridged DDC version 21 in French), MSC2000.

- **3.5 URI's to be used as scheme names**

- 3.5.1 All schemes will be given an acronym for the purpose of DC metadata encoded in HTML/XHTML (cf. 3.3). Scheme owners/maintainers are strongly recommended to assign an unique and persistent URI as an identifier to their vocabulary. There is no need that this URI points to a web page of any kind. *Last two sentences to be removed acc. to Tom*
- 3.5.2 A scheme which does not (yet) have an official unique name/ID assigned by the owner/maintainer will, in addition, be given an URI by this DCMI registry using the format: [http://purl.org/dc/schemes/\(Acronym\)](http://purl.org/dc/schemes/(Acronym)) ? for usage in metadata encoded in XML and/or RDF.
- 3.5.3 In case the owner/maintainer establishes an unique scheme URI at a later stage, the

DCMI vocabulary registry and the DCMI term namespace (in RDFS) will ensure interoperability by establishing a "same as" relationship between the URI assigned by DCMI and the new official URI assigned by the owner/maintainer.

3.5 needs to be reformulated in case the assignment of an acronym always involves to establish a DCMI URI for the vocabulary. In that case all registered vocabularies will be given a DCMI URI and most will eventually need to have "same as" links in the registry to be routinely looked up by services. We need to discuss the implications.

Note: In order to stay in sync with DCMI conventions, in these guidelines the full name of a scheme is called "label" and an acronym or token is called "name".

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Created: 2001-05-11

Last update: 2004-01-16

URL: <http://www.lub.lu.se/~traugott/drafts/vocab-guide6.html>

DC Usage Board

Issues arising from DCMI Abstract Model

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 Abstract 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 definitions

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 entity. 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 in 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).

Therefore, 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

Similarly, 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 Syntax 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 label '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.

Andy Powell, UKOLN, University of Bath
March 2004

Date: Mon, 8 Mar 2004 16:51:09 +0100
From: Roland Schwaenzl <Roland.Schwaenzl@MATHEMATIK.UNI-OSNABRUECK.DE>
Subject: dc-box and dc-point
Comments: cc: roland@scarlett.mathematik.Uni-Osnabrueck.DE

We need to talk about dc-box and dc-point in the context of the drafted abstract model.

The issue is, that people want/use an XML coding for the components.

Such coding we currently cannot support in RDF, as we never assigned URI's to the properties needed for that.

An issue related is for namespace bound XML encodings. We never really said to which namespace those elements should be attributed.

To support the DCSV encoding via XML Schema datatyping looks fairly ugly to me as well, as XML Schema currently does not support user created primitives.

PB Core — the Public Broadcasting Metadata Initiative: Progress Report

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Abstract

PB Core is the result of the public broadcasting metadata initiative (PBMI). It is an effort of the public radio and television broadcasters to develop a schema for the description of their assets. PBMI is under the auspices of the Corporation for Public Broadcasting. The paper discusses the user-centered development of the schema, the elements of the PB Core, the application profile, and the feedback and evaluation process of the schema.

Keywords: Public Broadcasting Metadata Initiative, Dublin Core, PB Core, Media Asset Description.

1. The Need for Public Broadcasting Metadata

As public broadcasting endeavors to maintain our value and values in a dramatically altered media environment, we know we must do three things: develop and deliver content across multiple platforms, strengthen our editorial and service partnerships, and engage in more efficient methods of conducting our new and legacy activities.

The recent convergence of IT capabilities with those of radio and television broadcasting has caused us and our constituents to appreciate that our prized editorial output (video clips, audio interviews, transcripts, etc.) can be understood as a series of digital assets, that can be identified, exchanged and distributed using an advanced digital infrastructure. Our ability to network – to exchange rich media content – within and across our newsrooms, production suites, satellite and terrestrial distribution systems, etc., and even with our educational and community partners (schools, libraries, museums) has never been greater. We have been afforded a tremendous

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opportunity for cultural relevance and operational efficiency.

In a public broadcasting system made up of hundreds of independent licensees, the challenges of organizing universal processes for asset appraisal, digitization, rights clearance, preservation, etc. are myriad, perhaps overwhelming. We did understand, however, that the foundation of any future effort in this direction would be a single, shared protocol for identifying and describing our rich media assets.

The Public Broadcasting Metadata Initiative (PBMI) is a cross-organizational, multi-disciplined effort to establish a standard for all public broadcasting content (radio and television), in order that metadata might be more easily exchanged between colleagues, software systems, institutions, community partners, individual citizens, etc. The PBMI will be a "touchstone," a single, streamlined standard to which other database structures, including those of PBS, NPR, major producing stations, and other asset/content management systems will be "mapped." It can also be used as a guide for the onset of an archival or asset management process at an individual station or institution.

The project has been extant since January of 2002, and during its first two phases of CPB Future Fund support, a team of individuals representing public broadcasting's key institutions and endeavors, along with subject matter experts (see appendix for list of participants) has worked to:

- § Develop consensus regarding project objectives and timeline;
- § Recognize and codify the way our constituents use our content and content information. (Developed use cases based on interviews with producers, broadcast operation staff, educators, website creators, etc.);
- § Examine relevant metadata standards in the media and library communities, to ascertain their applicability to our content and constituencies;
- § Make information about the PBMI available via numerous conference presentations and a project website;
- § Contribute and combine the substantial metadata work already performed at key institutions in public broadcasting (PBS, NPR, WGBH, KUED, MPR);
- § Form a preliminary consensus regarding a single set of metadata protocols - the Public Broadcasting Core (PB Core) Metadata, Preliminary Version.1.

2. What Alternatives Were Available

The main goal of the PBMI is to create a schema that is easily understood, implemented and adopted by the Public Broadcasting community at large. PBMI embarked in a detailed review of existing metadata standards that are used for the description of rich media assets. These included

standards that deal with the descriptive, administrative, and educational aspects of the assets. In general, while many of the metadata standards discussed below are in development, the Dublin Core Element Set has remained stable since its 1.1 revision in 1999 [1]. Additions and other changes to the Dublin Core model come in the form of recommendations and application profiles, but the basic core of 15 elements remain unchanged. So we have built our model upon the Dublin Core that provides a solid foundation that is extensible, scalable, and easy to understand.

The standards that were considered were OAIS, SMEF-DM, MARC, METS and MPEG-7, as well as the educational standards SCORM, LOM, IMS. These are briefly discussed below.

OAIS: Reference Model for an Open Archival Information System [2] is a framework and reference architecture for digital preservation.

SMEF-DM: Standard Media Exchange Framework - Data Model [3] is an end to end broadcast production model, workflow oriented. Our assets may involve domains or materials not exclusive or even related to broadcasting, such as CD-ROM, DVD, books. Metadata was determined to describe assets as objects or files. However, SMEF mandates a specific workflow with limited options. For example, assumptions are made on the order of activities. Our experience is that productions have many different workflows that must be accommodated.

MPEG-7: "Multimedia Content Description Interface" is a highly structured standard focusing on multimedia. Our model does not preclude a station adopting MPEG-7 because the PB Core is based on the Dublin Core model and will map to MPEG-7. On the other hand, MPEG-7 is narrowly focused on multimedia, not on the wide range of other media or materials that will be found in a producing station's repository. See e.g., Hunter [5,6], Agnew [7].

MARC: The MARC formats are standards for the representation and communication of bibliographic and related information in machine-readable form [8]. MARC requires a cataloging skill set that is not likely to be found in most public broadcasting stations. Our model insists on the integrity of each asset (version or format of the content). Dublin Core crosswalk maps to key fields in MARC <http://www.loc.gov/marc/dccross.html>.

METS: Metadata Encoding and Transmission Standard [9]. The METS schema is a standard for encoding descriptive, administrative, and structural metadata regarding objects within a digital library.

SCORM: The Sharable Content Object Reference Model [10]. This is an application profile "to provide a comprehensive suite of e-learning capabilities that enable interoperability, accessibility and reusability of Web-based learning content."

IEEE LOM: IEEE 1484 Learning Objects Metadata. A Learning Object is defined as any entity, digital or non-digital, which can be used, re-used or referenced during technology-supported learning [11]. The mapping of LOM to Dublin Core is available at [12].

IMS Global Learning Consortium. IMS Meta-Data v1.2.2 [13] The IMS initiative originated in higher education but it now involves stakeholders in corporate and government training, K-12, and continuing education. The IMS learning consortium develops learning technology interoperability specifications. IMS initially set out to produce a unified specification covering metadata, content, administrative systems, and learner information. This proved to be too large a specification and IMS broke it up into component parts, with separate working groups developing each, and each being released separately.

SCORM, LOM, IMS, and DCMI education (DCEd) are examples of standards for creating, storing and serving educational metadata. The above schemas have many commonalities and there is an effort to increase interoperability among them. For example, SCORM uses LOM vocabulary. All schemas could be mapped to qualified Dublin Core elements. Extensions to our model as well as value lists (element types) allow for incorporating some of these needs.

3. Why develop PB Core?

Many parties have asked us why we did not adopt and adapt metadata schemas already in existence or in development. For several reasons, the existing standards were not appropriate to our needs. Basically, alternative schemas were either too cursory in their descriptive capabilities or far too ponderous.

An implementation project, such as the Public Broadcasting Metadata Initiative Project, generally finds that no one metadata standard completely meets its needs for descriptions of media essence. General standards, like Dublin Core, are often folded into domain- or sector-specific standards, such as MPEG-7 for multimedia and IEEE/LOM for educational resources. New elements may be devised which meet local needs not covered by any existing standards. The Public Broadcasting Core can be thought of as an application profile whose schema combines elements from multiple standards, with application-specific constraints (as in the use of specific controlled vocabularies or structured values). The PB Core must be understandable and usable by all public broadcasting entities, from the smallest local NPR radio station to the largest public television producers of national programming.

The PBMI's primary interest is in data exchange, data crosswalks, and interoperability, not necessarily in creating a complete metadata model that can be exploited by digital asset management systems for comprehensive, original cataloging and markup of essence. The Project desires to facilitate the sharing of metadata and the discovery of valued assets. The PB Core is intended to be "simple," but not "simplistic." Furthermore, the PB Core should be considered as a starting point that may accommodate

metadata extensions of interest to specific communities and users.

Consequently, the Project undertook a path that would reflect the Public Broadcasting industry's needs and wants regarding media assets by gathering together representatives from public broadcasting and growing a consensus. The unique quality of public broadcasting, both television and radio, is its local ownership and local ties to its surrounding communities. In a parallel fashion, the Public Broadcasting Metadata Initiative was designed to tap into the various local constituencies and develop a metadata core from "grassroots" origins, rather than by administrative edict.

The Project conducted a detailed "needs assessment" of public broadcasters. Such measures are revealing and often unmask and articulate conditions, issues, needs, and desires that otherwise are dismissed or forgotten. By applying user-centered techniques PBMI was able to discover a wide spectrum of needs and applied the most appropriate metadata elements.

4. The Process for Assessing the Need and Gathering User Requirements

Public broadcasters have always endeavored to engage in complex and robust relationships with their constituents, whether those are viewers, listeners, educators, community leaders, etc. We have always provided extensive outreach for our broadcast content, with particular emphasis on the needs of K-12 teachers and lifelong learners. Today, with the advent of the Internet, that outreach is more significant and successful than ever before. As mentioned above, we also have an extremely complex structure; as opposed to our media counterparts, who increasingly concentrate their ownership and control of media outlets, very little of public broadcasting's operations are centralized. We have innumerable systems for producing and tracking our content, and our institutions are structured in a variety of ways, often based on who holds the broadcast license.

In order to ascertain the metadata needs of our "external" users – constituents – and "internal" users – local and national staff – we first created a list of users, and then double-checked this "strawman" with the core PBMI working group. A "User Requirements Team" was formed from within the working group. Using the now-modified user list, they set out to create a series of Use Case Scenarios. During this process, the "User Requirements Team" interviewed a large number of stakeholders, including national program distributors, local station broadcast operations and IT staff, a K-12 "learning object" consortium, an independent television production company, a television graphic artist, and "interactive" specialists (web and TV).

The interviews provided very useful feedback that helped define aspects such as the levels of granularity for the description of assets, the specificity with respect to the

number of elements, type of information to be described, such as rights, and encoding standards, e.g., XML. For example, what emerged from the interviews was a clear division between full-program metadata (such as title, format, date), which serves the needs of national distribution and local broadcast operations, and fragment, or clip-level data, which serves the needs of producers, educators, and website programmers. Most use case participants felt that it was critical to have a simple, intuitive set of metadata elements, with extensions for particular constituencies, e.g., K-12 curriculum-correlation, or graphics creation, so that the maximum number of assets could be identified and retrieved by the greatest number of individuals and institutions.

There was a great deal of concern about rights management, without which future business and service models crumble. Several interviewees felt that the working group should also determine standards for metadata exchange, such as XML.

5. The Process of Refining the PB Core

A powerhouse of motivated and opinionated experts was assembled to contribute to the Public Broadcasting Metadata Initiative Project. The members were drawn from a variety of communities related to public broadcasting:

- National public television organizations and program distributors
- National public radio organizations and program distributors
- Online Internet-based resource organizations
- National program producers
- State and regional network organizations
- Community radio and TV licensed stations
- University radio and TV licensed stations
- Educators
- Metadata subject matter experts

The initial work of the members for the Public Broadcasting Metadata Initiative Project lasted seven months. The overarching goal of the group was to recommend usable metadata fields that would facilitate the exchange of program and resource information between public broadcasting communities and other interested parties. Guiding our work process was the question, “How would a particular metadata element ultimately contribute to the discovery of public broadcasting’s intellectual content by various end-users”? The objectives of the Working Group were to:

- Develop and refine user requirements for a sharable metadata element set.
- Review existing metadata schemas to determine their applicability to the public broadcasting arena,

to identify gaps and overlaps, and to incorporate the most germane while discarding the least useful or confounding.

- Determine the scope and breadth of a usable metadata schema that was consensus-built, extensible, and interoperable with other asset management systems and databases.
- Draft a preliminary application profile of the public broadcasting core metadata of descriptors and their usage.
- Present the PB Core to the public broadcasting community for review and comment.
- Refine and revise the PB Core prior to release and publication.

In the seven-month time period, two full meetings of the entire Working Group were conducted, as well as follow-up committee work.

- First Meeting: 2002-4-24&25
- Committee Work: 2002-Summer, PB Core Review Team and User Requirements Team
- Second Meeting: 2002-9-12&13
- The Boston Summit: 2002-10-16,17,18

These activities led to an intensive three-day work session in Boston (2002-10-16,17,18), where the Public Broadcasting Metadata Core was refined and honed by the PB Core Review Team.

Before the Boston Summit, the PB Core Review Team had surveyed existing metadata dictionaries from various authorities and organizations, including those in use by several public broadcasting groups. A total of 467 separate metadata elements were compiled, which spawned 2335 recommendations for grouping and collapsing the elements into the most relevant. From these recommendations, a total of 249 working metadata elements and their qualifiers were selected.

The work of the PB Core Review Team at the Boston Summit combined redundant elements, discarded the less relevant, and debated the appropriate application of preferred metadata within the dictionary. The Summit yielded a preliminary draft of 58 metadata elements and their qualifiers that were most appropriate to public broadcasting and related communities. (For details see <http://www.utah.edu/cpbmetadata/PBCore>)

6. The Public Broadcasting Core Elements

Many of the 58 metadata elements selected for the Public Broadcasting Core of metadata descriptors were drawn from the Dublin Core Metadata Initiative. Others were retained from existing public broadcasting digital asset management systems in development. Still others were drawn from additional working groups.

The PB Core Elements could be placed into three categories or clusters:

- **Content:** 20 elements describing the actual intellectual content of a media asset or resource.
- **Intellectual Property:** 9 elements related to the creation, creators and usage of a media asset or resource.
- **Instantiation:** 29 elements that identify the nature of the media asset as it exists in some form or format in the physical world or digitally.

Table 1 reviews the 58 elements and qualifiers currently under consideration by the Public Broadcasting Metadata Dictionary Project. The Registration Authorities

listed represent the agency of responsibility for the long term integrity and viability of particular metadata elements and associated qualifiers:

- DCMI: Dublin Core Metadata Initiative
- DC-Ed: DCMI Education Working Group
- ViDe: Video Development Initiative
- [PBCore]: Corporation for Public Broadcasting as Interim Steward
- [MPR]: Minnesota Public Radio as Interim Steward

Table 1. Recommended Metadata Elements of the Public Broadcasting Metadata Initiative Project

Element Name	Registration Authority and Element Definition
01.00 Title	DCMI: A name given to a resource, as well as any other title(s) that would be useful in uniquely identifying a resource and that would facilitate discovery and retrieval.
01.01 Title.Alternative	DCMI: An Alternative Title is used in order to identify an asset or resource that has a title similar to the proper title, but which further assists in discovery and retrieval.
01.02 Title.Series	[PBCore]: A Series Title is one specifically identified by the video or audio production agency and is named as such in order to facilitate discovery and retrieval, as well as to more accurately reflect how a resource's title fits into a hierarchy of proper titles that are used to describe it.
01.03 Title.Episode	[PBCore]: An Episode Title is one specifically identified by the video or audio production agency and is named as such in order to facilitate discovery and retrieval, as well as to more accurately reflect how a resource's title fits into a hierarchy of proper titles that are used to describe it.
01.04 Title.Program	[PBCore]: A Program Title is one specifically identified by the video or audio production agency and is named as such in order to facilitate discovery and retrieval, as well as to more accurately reflect how a resource's title fits into a hierarchy of proper titles that are used to describe it.
02.00 Creator	DCMI: An entity primarily responsible for making the content of the resource or asset. May be a person, business, organization, group, initiative or service.
02.01 Creator.Role	[PBCore]: Unlike print resources, there is no single role, such as author, that is commonly understood to have primary responsibility for the intellectual content of many resources, such as audio, video or film assets. In such cases, creators can include many different roles deemed to have primary responsibility for the creation of the essence, such as the instructor for a video course, the interviewee from a video history program, or the director of a feature film.
03.00 Subject	DCMI: The topic(s) of the intellectual content of a resource or asset. Contains controlled values and uncontrolled values (keywords). Use the Description element for more free-form text descriptions of a resource.
04.00 Description	DCMI: An account of the intellectual content of the resource. Descriptions are more free-form text entries when compared to the controlled vocabularies associated with the Subject element.
04.01 Description.Abstract	DCMI: As an account of the content of the resource, the qualifier Abstract is a short narrative summary of the topic of the resource. Provides additional supplied text by experts that adds color or insight to the description of the resource or asset not otherwise identified in the more specific content related fields. Anecdotal comments welcomed.

Element Name	Registration Authority and Element Definition
04.02 Description.Table of Contents	DCMI: As an account of the content of the resource, the qualifier Table of Contents is used for partial or full listings of subunits of the resource. Use the Table of Contents to identify other descriptive information such as: Composers and Works contained in a program; Cue Sheets; Play Lists; Rundowns; Edit Decision Lists (EDLs) (unformatted); Content Flags; Index of Sections or Segments; Formal Table of Contents.
04.03 Description.ProgramRelatedText	[PBCore]: As an account of the content of the resource, the qualifier ProgramRelatedText identifies other audio and textual representations of the main audio or language presentation mode for a resource or asset.
05.00 Publisher	DCMI: An entity responsible for distributing or making a resource available to other end-users and communities. May be a person, business, organization, group, initiative or service. Some resources may not have a publisher or distributor, and thus will not have an entry under Publisher.
05.01 Publisher.Role	[PBCore]: The Role that is played by a specific Publisher or Publishing entity is identified.
06.00 Contributor	DCMI: An entity responsible for making contributions to the content of the Resource, but whose contribution is secondary to any entity specified in the Creator element (for example, film editor, screenwriter, narrator). Examples of Contributor include a person, an organization, or a service. Typically, the name of a Contributor should be used to indicate the entity.
06.01 Contributor.Role	[PBCore]: The Role which a Contributor plays is identified here. Use this element and qualifier to identify important production credits for a resource, e.g., producer, director, writer, special thanks, funding agencies, programmers, designers, graphics, instructional design, etc.
07.01 Date.Created	DCMI: The creation date for a resource or program.
07.02 Date.Issued	DCMI: Date of formal issuance (e.g. publication) of a resource for general public consumption.
07.03 Date.AvailableStart	DCMI: A specific start date for a resource's availability. May refer to start dates for the availability of a program that is broadcast locally, regionally, nationally or internationally.
07.04 Date.AvailableEnd	DCMI: A specific date that a resource's availability has come or will come to an end. May refer to end dates for the availability of a program that is broadcast locally, regionally, nationally or internationally.
08.00 Type	DCMI: The nature or genre of the content of the resource, or the purpose for which the asset was created and made available.
08.01 Type.Form	[PBCore]: A format or program category for a resource.
08.02 Type.Genre	[PBCore]: The nature or genre of the content of a resource.
09.01 Format.Physical	[PBCore]: A physical manifestation of a resource as it may exist as a format or carrier that occupies physical space dimensions.
09.02 Format.Digital	DCMI: A digital instantiation of a resource that may or may not have existed originally in an analog, physical form. Digital media formats may be expressed as formal Internet MIME types or as other means of expressing the format of a digital resource.
09.03 Format.Identifier	[MPR]: Identifying information about the format of a resource.
09.04 Format.FileSize	ViDe: Measures the storage requirements or file size of a digital resource in Bytes, Kilobytes, Megabytes or Gigabytes to provide the most meaning to the end user.
09.05 Format.AudioBitDepth	[PBCore]: For a program or resource, this qualified element measures an audio signal in a number of bits and answers the question, 'How Much' data is allocated to a digital sampling of an audio signal. Provides information important for identifying retrieval and playback/display requirements for a resource.

Element Name	Registration Authority and Element Definition
09.06 Format.AudioChannelConfiguration	[PBCore]: Indicates the number of audio channels configured for the playback of a resource.
09.07 Format.AudioDataRate	[PBCore]: Expressed as amount of data per second and indicates how much data is delivered through a particular delivery pipeline for every second.
09.08 Format.AudioSamplingRate	[PBCore]: Measured in kiloHertz for a program or resource, this qualified element quantifies 'How Much' data is allocated to a digital sampling of an audio signal. Provides information important for identifying retrieval and playback/display requirements for a resource.
09.09 Format.ImageAspectRatio	[PBCore]: Indicates the ratio of horizontal to vertical proportions in the display of an image or moving image.
09.10 Format.ImageBitDepth	[PBCore]: For a program or resource, this qualified element measures a still or moving image in terms of the number of bits in a sample, and answers the question, How Much data is allocated to a digital sampling. Provides information important for identifying retrieval and playback/display requirements for a resource.
09.11 Format.ImageChannelConfiguration	[PBCore]: Indicates the number of image channels available in a resource. May be most appropriate for digital files, like QuickTime in which multiple video tracks can be encoded in a single file.
09.12 Format.ImageColorCode	[PBCore]: Indicates the color or lack of color in an asset. Does not measure the specific color metrics of a image or moving image.
09.13 Format.ImageDataRate	[PBCore]: Expressed as amount of data per second and indicates how much data is delivered for an image or moving image through a particular delivery pipeline for every second.
09.14 Format.ImageFrameRate	[PBCore]: Indicates the frames per second found in a resource's playback or display.
09.15 Format.ImageFrameSize	[PBCore]: Indicates the horizontal and vertical resolution of a format type. May be expressed in pixels, pixels per inch, or in the case of ATSC digital TV, a combination of pixels measured horizontally vs. the number of lines of image data stacked vertically (interlaced and progressive scan).
09.16 Format.TimeStart	[PBCore]: Indicates a time stamp representing the beginning point for the playback of a resource. Use in combination with Format.Duration to identify a sequence or segment of a resource that has a fixed start time and end time.
09.17 Format.Duration	ViDe: Describes the duration in time units for a resource, if that resource has an identifiable, linear start-to-end playback. Format.Duration does not describe the time required to utilize a resource in a setting, but is rather a strict playback time, TimeStart to TimeEnd.
09.18 Format.Standard	[PBCore]: The standard refers to an overarching architecture for underlying media formats.
09.19 Format.Type	[PBCore]: The Qualifier of Type is hierarchically a subset of the values found under Format.Standard and describes specific kinds of media formats found for each media standard.
09.20 Format.Encoding	[PBCore]: This proposed element with qualifier is designed to offer a single element with which the various media standards and their collected format types can be identified for a particular resource.
10.00 Identifier	DCMI: An unambiguous reference or identifier for a resource within a given context. Best practice is to identify a resource by means of a string or number corresponding to an established or formal identification system.
11.00 Source	DCMI: A reference to another resource from which the present resource is derived.
12.00 Language	DCMI: The primary language of the intellectual content of the resource, usually expressed by the audio track. If other, alternative audio and textual representations of the main audio or language presentation mode exist for a resource or asset, describe that information in the Language.Usage element.
12.01 Language.Usage	[PBCore]: The qualifier Language.Usage identifies the existence of other audio and textual representations of the main audio or language presentation mode for a resource or asset.

Element Name	Registration Authority and Element Definition
13.01 Relation.Type	[PBCore]: Relation.Type identifies a second resource that is related to the primary resource. It defines the relationship between the second resource and the primary resource. While the primary resource is described by the rest of the asset management's database record, the second resource is described using the Relation field.
13.02 Relation.Identifier	[PBCore]: Identifies a second resource related to the primary resource by using a specific numbering or labeling scheme to call out the related resource. Used in combination with the Relation.Type element to cross reference the type of relation with a unique identifier for that relation.
14.01 Coverage.Spatial	DCMI: Identifies the extent or scope of the resource's content from a spatial or geographical perspective of the intellectual content of a resource. Coverage.Spatial is used for geographic coordinates of maps and map-like images (e.g. aerial maps or map-like images concatenated as a video file) or to associate place names or logical jurisdiction for a resource.
14.02 Coverage.Temporal	DCMI: Identifies the extent or scope of the resource's content from the perspective of the temporal or time characteristics of the intellectual content of a resource. CoverageTemporal is used for date and time-based events, designated numerically for precision searching, where the time element is critical for identification and use of the resource.
15.00 Rights.Usage	[PBCore]: Information about rights held in and over the resource, particularly in what manner the resource will be used, eg., broadcast, web, PDAs, or education/classroom.
15.01 Rights.Reproduction	ViDe: Statements or references about rights held in and over a resource, specifically regarding the rights to reuse, repurpose or reproduce a resource.
15.02 Rights.Access	ViDe: Access information about rights held in and over a resource. Rights.Access indicates either 'open access' or 'restricted access.' These two options are used as flags to trigger certain actions. For example, metadata records with 'restricted access' will not be exposed for mining by OAI initiatives.
16.01 Audience.Level	DC-Ed: A general statement describing the education or training sector. Alternatively, a more specific statement of the location of the audience in terms of its progression through an education or training sector or level.
16.02 Audience.Rating	[PBCore]: Designates categories of users for whom the resource is intended or judged appropriate. Standard ratings have been crafted by the broadcast television industry which are useful.
18.00 Annotation	[PBCore]: General field to be used to append helpful information for the metadata markup team about an asset and its metadata.
19.00 Location	[PBCore]: Identifies the location of a specific format or instantiation of a resource. Usually a text string describing where in the physical world the resource's physical format resides. This is not an ID number, but a location identifier. Used when the actual physical form is being indexed in an asset management system.
99.00 Special Extensions	Extensions are additional descriptions for media resources that have been crafted by organizations outside of the PBCore development initiative. These extensions fulfill the metadata requirements for these outside groups as they identify and describe their own types of media with specialized, custom terminologies. Eg: DC-Ed Audience; Audience.Mediator; Standard; Standard.Identifier; Standard.Version IEEE LOM InteractivityType; InteractivityLevel; TypicalLearningTime

7. The Application Profile

The 58 elements are delineated by 15 attributes according to the modified ISO 11179 Specification and Standardization of Data Elements [14]. The full accounting

of the specification is too large a document to include in this paper.

1. Element Number
2. Element Name
3. Version of the Element

4. Element Label
5. Definition
6. Namespace Identifier
7. Registration Authority
8. Language of the Element
9. Obligation in Usage
10. Data Type
11. Maximum Occurrence
12. Encoding Schemes
13. Restricted Values
14. Examples
15. Usage Guidelines

PBMI's interest is in data exchange, data crosswalks, and interoperability, not necessarily in creating a complete metadata model that can be exploited by digital asset management systems for comprehensive, original cataloging and markup of essence. Consequently, the primary desire of PBMI is to facilitate the sharing of metadata and the discovery of valued assets. Within the Application Profile, issues of concern to PBMI are:

- Who will serve as the real registration authority that takes responsibility for the declaration and maintenance of our newly defined, custom elements and their qualifiers that are not already part of a standard?
- Who will publish versions of the Core and its updates? Provide documentation? Provide Technical Support?
- How will we monitor adoption and compliance?
- How will we measure successful implementation?

The Project recognizes that it needs to remain focused on the fact that the Working Group is not a body of "standards makers." Rather, we are "real life implementers" who are tasked with generating effective solutions in order to service the efficient and widespread delivery of public broadcasting's intellectual content. Similar to our day-to-day business, we are engaged in applied and practical solution-making.

Like many other groups debating the application of metadata schemes, the Project remains conflicted in how best to match metadata descriptors with various instantiations of essence and assets. The question of embracing a "one-to-one" relationship between a metadata record and its associated essence or subscribing to a "one-to-many" relationship between a metadata record and the various instantiations of its essence still plagues the PBMI Project. Compelling arguments have been presented on both sides of the issue. We are hopeful that the next phase of our project, a Request for Comments, will assist us in sorting out a solution.

8. Feedback and Evaluation Mechanisms

To a great extent, the work of the Public Broadcasting Metadata Working Group has modeled an unheard-of process – coordination and consensus across vastly different institutions, on a topic of extreme detail and importance. The Preliminary PB Core is ready to be reviewed and tested.

During the next several months the Working Group will be asked to engage in an even more difficult process – a mid-course evaluation.

The group will be divided into task teams, and through research, interviews, conference calls, and "thought papers," will address the following issues and objectives:

- determine that the PB Core is sustainable over time (including knowing its lifespan, form, cost, etc. and how stations and producers can be made to comply with the protocol);
- ensure that the PB Core's strategic value is understood and acknowledged by senior management who will need to support it;
- devise a plan to integrate the PB Core into the day-to-day operations within local and national content infrastructures, especially the PBS Next Generation Interconnection System and NPR's Content Depot.

It is our assumption that these difficult questions will be answered in a manner that leads the project to the RFC (Request for Comments) process, and then test implementations in typical metadata scenarios.

The RFC process will include other public broadcasting production, IT and broadcast operations staff, key software vendors serving the industry, standards organizations, partnering institutions, etc.

Test implementations of the PB Core, still to be determined, will likely include radio, television and website production collaborations, tape libraries, national program distribution systems, as well as national producers of content. Consideration will be given to additional test participant(s) whose products, services and initiatives are used by, and/or relate to public broadcasting stations and organizations.

9. Next Steps

The PBMI process has illuminated for participants and observers alike the critical need for a new, "advanced networking" approach toward conducting our core activities. We must change our institutions and infrastructures, even our funding models, to reflect a new spirit of exchange, collaboration and consolidation. Certainly, without Internet-like standards for descriptive and administrative metadata, rich media file formats, file exchange, etc., we will not be able to keep pace with changes in the media environment, nor will we advance our public service mission.

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Appendix: Public Broadcasting Metadata Initiative Project Participants

At Large

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Dave Johnston, PBS Online
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Chuck McConnell, NETA/OSBE
Bea Morse, Public Broadcasting Service (PBS)
Robin Mudge, onCourse (*former participant*)
Lesley Norman, David Grubin Productions (*former participant*)
Meg O'Hara, WNET
Tim Olson, KQED
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Additional Support Provided By

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Carrie Lowe, Public Broadcasting Service (PBS)
Thom Shepard, WGBH
and other staff at many of the participating organizations listed above

Date: Mon, 8 Mar 2004 17:08:27 -0500
From: "Rebecca S. Guenther" <rgue@LOC.GOV>
Subject: Some comments on PB Core
To: DC-USAGE@JISCMail.AC.UK

Because I participated in the survey about the PBCore metadata dictionary, I was able to get a sense of some of the issues we might be concerned about in a Usage Board review. I have selected some sample elements to illustrate what some of these issues are. This is not comprehensive.

The article in the 2003 conference program is reasonably complete, but does not have as much description and does not include examples, as the survey did. I will bring a copy of some sample elements that shows this additional information.

Comments about PBCore

1. They use the "dot" syntax. This has implications for the element names that they have chosen. They need to realize that the refinements will stand alone and not be related to the element they refine except in the RDF expression. Our latest ruling on this was to have refinements be able to stand alone. For example: Title.Program should be programTitle.

2. Example: Title.Series.

I question whether this is a refinement of title but of Relation. The semantics of title are:

Definition: A name given to the resource.

Comment: Typically, Title will be a name by which the resource is formally known.

In this case, series is at a different level hierarchically; it is really a related title, that is, the series in which the title appears. Thus I would call it Relation isPartOf or a new refinement isPartOfSeries. We discussed this in the context of the DC-Lib AP and decided to use isPartOf.

3. Type.Form

This is described as the manner in which the content of a resource is structured for presentation, viewed or heard by a user. It has a controlled list. It also says it has an implied hierarchy when using Type, Type.Form and Type.Genre. Examples are documentary and tutorial. This distinction is difficult to make and I can't really tell here which is which. I'm also not sure how this so-called hierarchy can be conveyed.

4. Description.ProgramRelatedText.

It is described as the actual text or link to text. I imagine this violates the 1:1 principle, since it is really another representation of the program in textual form.

5. Relation.Type

This implies that there is an attribute type with a list of values. Those values are what are the refinements themselves (e.g. hasFormat, isFormatOf, etc.). Not the way DCMES does things.

6. Relation.Identifier

Specifies that this is free text. Examples include a URI but also includes an ISBN or a string specifying a location (e.g. "Room 217: Section C: Shelf 5"). If it's a URI, it should be identified as a URI (refining Relation). If it's free text, I'm not sure it refines the semantics of identifier:

"An unambiguous reference to the resource within a given context. "

and we don't generally embed one DC element within another.

7. Creator.Role, Contributor.Role, Publisher.Role

We all remember the discussions about this one; the particular role is the refinement.

8. Language.Usage

Says it identifies the existence and type of other audio and textual representations of the main audio or language presentation mode for a resource or asset. It has a controlled list that includes "DV1", "SAP1", "Open caption", "DVD Subtitle01", etc.

I don't think this is at all consistent with the semantics of language:

"Definition: A language of the intellectual content of the resource.

Comment: Recommended best practice is to use RFC 3066 [RFC3066] which, in conjunction with ISO639 [ISO639]), defines two- and three-letter primary language tags with optional subtags. Examples include "en" or "eng" for English, "akk" for Akkadian", and "en-GB" for English used in the United Kingdom."

This brings up:

1. What does it mean to register an application profile?
2. How much detail needs to go into the review of an AP? Every element?
3. What do we need to say about syntax (i.e., they're using the dot syntax here, appropriate only in HTML)?
4. What if an AP requires some sort of hierarchy in metadata elements?

OAI-Rights White Paper

September 26, 2003

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The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)^[1] has become an important foundation for interoperability among networked information systems. It is widely used in a variety of domains including libraries, museums, government, and research.

Like any vehicle for exchanging information, the OAI-PMH exists in a context where information holders have concerns about rights to the use of their information. Although the OAI-PMH is nominally about the exchange of metadata, this does not lessen the complexities of rights-related issues:

1. The distinction between content (data) and metadata is fuzzy at best, especially vis-à-vis intellectual property, and many providers are justifiably wary about uncontrolled reuse of rich metadata that represents a significant intellectual effort.
2. Since the only technical restriction on data exchanged via OAI-PMH is that it must use XML encoding, it is entirely feasible to use the protocol for transmission of content itself.
3. Since the primary reason for making metadata available via OAI-PMH is usually eventual access to the resource described by the metadata, guidelines and frameworks for expressing rights to that resource are in the scope of the protocol.

As a result of these issues, discussion of rights and their relationship to the OAI-PMH have been frequent throughout work on the protocol.

This paper is intended as a foundation for work aimed at incorporating structured rights expressions into the OAI-PMH. This work will be undertaken by a technical group called oai-rights, and will result in a set of OAI-PMH guidelines scheduled for release in second quarter 2004. A copy of the letter of invitation to this group is included as Appendix A in this document. In the tradition of OAI-related work, this effort is tightly scoped and intended to produce results that are both simple and extensible. As such, two items are out-of-scope for the oai-rights effort:

1. oai-rights will not define any new rights expression language or semantics. There is a wealth of work in rights expression languages with buy-in from industry and other organizations. These include XrML[\[2\]](#), ODRL[\[3\]](#), and the Creative Commons[\[4\]](#) initiative.
2. oai-rights will avoid restriction to any single rights expression language. The goal is to permit any type of rights expressions expressible as XML. We will work on including Creative Commons licenses in OAI-PMH responses, but only as a proof-of-concept of the general approach.

This paper examines issues and suggests alternatives for the incorporation of rights expressions in the OAI-PMH along three dimensions:

1. *Entity association*, which covers the association of rights expression with metadata and data (resources).
2. *Aggregation association*, which covers whether rights expressions can be associated with entities in the OAI-PMH that group other entities.
3. *Binding*, which covers where rights expressions are placed in protocol responses.

Entity association

Experience with the OAI-PMH thus far indicates that the oai-rights effort should focus on both rights expressions for metadata and associated resources:

- A significant number of data providers, notably in the NSDL^[5] context, have expressed concern about uncontrolled reuse of rich metadata. These organizations and individuals maintain that this metadata represents considerable intellectual effort to which they would like to associate statements about copyright and usage restrictions.
- Most metadata currently exposed via OAI-PMH is meant to facilitate resource discovery. This is both because the required OAI-PMH metadata format is Dublin Core, a basic resource discovery element set, and because the foundations of metadata lie in library cataloging where discovery is a primary goal. The natural progression from discovery is access. Thus, expression of restrictions on resource access is an understandable concern for data providers. Furthermore, service providers may wish to present information about the accessibility of content.

We therefore suggest that oai-rights proceed on the assumption that the handling of rights expressions for both metadata and resources will be covered by any specification.

Aggregation association

The OAI-PMH data model includes a number of entities, some of which aggregate other entities. These entities are listed below, with the aggregating entities in bold-face, and illustrated in the figure below:

- **Repository** – A network accessible server that processes OAI-PMH requests and thereby makes metadata harvestable.
- *Resource* – The object that metadata is “about”. In some cases, repositories have *Resources* (and associated metadata) as their constituents. In others, such as metadata aggregators, the *Resource* is separate from the **Repository**.
- **Item** – An abstract object that represents the collection of metadata “about a

Resource” that can be harvested from a **Repository** via the OAI-PMH.

- *Record* – XML-encoded metadata in a specific format returned via an OAI-PMH harvesting request.
- *Set* – A grouping of *Items* for the purpose of selective harvesting. *Set* membership for *Items* is not required – an *Item* may be in no *Sets* – and non-exclusive – an *Item* may be in more than one *Set*.



oai-rights will need to decide if rights expressions can be associated with the aggregating entities, independent of whether the expression concerns the content (*Resource*) or the metadata (*Record*). For example, the ability to associate a rights statement with a *Repository* might provide a shortcut for expressing that statement about all *Records* disseminated via that *Repository* and/or all *Resources* for which those *Records* are metadata. Similar semantics might exist for associating rights statements for *Items* – applicability for all *Records* (metadata formats) that are grouped by that *Item* – and *Sets* – applicability for all *Items* (disseminating *Records*) that are aggregated by that *Set*.

While this may be a convenient shortcut, we foresee a number of complications in such shortcuts that may make them complicated to implement:

- The utility of the shortcut for a harvester assumes that there is some ordering in protocol requests. For example, if a **Repository**-wide rights statement were included in an *Identify* protocol response (which semantically provides information about the **Repository**), a harvester would need to make such a request before any harvesting of *Records* (via the OAI-PMH *ListRecords* or *GetRecord* requests). Such pseudo-statefulness is not currently present in the OAI-PMH and it is probably inadvisable to introduce it. (Of course, a disseminated *Item* could specify that **Repository**-level rights statements exist and the harvester should make an *Identify* request to find them, but this also imposes an additional burden on the harvester).
- The ability to associate a rights statement with an aggregating entity will require a set of rules and/or error conditions about aggregating entity/individual entity combinations. For example, if a rights statement is

associated with a *Repository*, does this preclude the association with an *Item* (it is an error), or should the *Item* statement override the *Repository* statement, or are they combined (which may be semantically impossible or nonsensical)? Also, the OAI-PMH data model allows *Items* to be in multiple *Sets*. How can conflicting rights expressions at the *Set* level, which are inherited by an *Item* residing in multiple *Sets*, be resolved?

At first glance, therefore, it may make sense for the oai-rights specification to only allow rights statements associations with the non-aggregating entities *Record* and *Resource*. However, another solution may be possible.

Binding

Because some metadata formats already have means of expressing rights statements, for example the rights element [\[6\]](#) in Dublin Core, oai-rights will need to consider whether to employ these mechanisms in metadata formats, to restrict the rights statements to some more specific protocol mechanism, or to allow some mixture of these methods. Two issues need to be considered to make a decision in this area:

- If the expression of rights statements in OAI-PMH leverages semantics in existing metadata formats, a harvester will need to determine which rights statement in which metadata format is the applicable one. For example, it is entirely feasible that a selected *Item* might disseminate multiple metadata *Records* including multiple and possibly conflicting rights statements. Is only one applicable? Which one is applicable? Is some combination applicable, with questions again arising about difficult or nonsensical semantic combinations? To what extent should the OAI-PMH enforce rights consistency in records?
- Perhaps one answer to the above question is to endow the rights element in the required oai_dc metadata format as the blessed method for expressing rights statements in OAI-PMH. However, there are a number of problems with this approach:

- The existing Dublin Core requirement in the OAI-PMH is now under discussion. The most compelling argument for loosening this requirement is that Dublin Core semantics (resource discovery) are not appropriate for a variety of applications of the OAI-PMH that are not oriented towards resource discovery or “document-like objects”. Perhaps the utility of the DC rights element is a convincing argument, but this needs to be considered.
- As described earlier, the resulting specification should allow expression of rights statements defined by various external efforts such as XrML and ODRL. Both of these use XML areas their encoding mechanism. However, qualified and unqualified Dublin Core, qualified and unqualified, currently restricts element values to text literals and not arbitrary XML sub-structure. Thus, it would not be appropriate to embed an XrML statement in a DC rights element.
- As noted earlier, the oai-rights effort begins with an assumption that rights statements should apply to *Resources* and metadata *Records*. The semantics of the DC rights element is specifically “a rights management statement for the resource, or reference a service providing such information.”^[7] Thus, simply exploiting the rights element within the oai_dc metadata format will not provide a comprehensive solution.

An alternative and somewhat simpler solution to consider is to define within OAI-PMH two mechanisms:

1. An “about” container^[8] that permits packaging of a single rights statement encoded in XML (conforming to any schema such as XrML) that addresses rights concerns about the associated metadata *Record*.
2. A designated metadataPrefix, such as oai_rights, that is a package for including a rights statement about the *Resource* in XML (conforming to any schema such as XrML). The schema for such metadataPrefix might just be enclosing tags, and then allowing sub-tags for any rights specification language.

While this solution might duplicate some effort by existing metadata initiatives,

such as DCMI, it does present a relatively easy solution for harvesters.

Conclusions

oai-rights is intended as a relatively short-term (less than one year) and well-scoped effort to define how rights statements should be carried in OAI-PMH. As such, the effort needs to follow the spirit of previous OAI activities; simple solutions that cover a broad class of uses. This paper has described a number of issues in approaching this problem and, hopefully, laid the foundation for a solution that reflects this spirit.

[1] <http://www.openarchives.org>.

[2] <http://www.xrml.org/>.

[3] <http://odrl.net/>.

[4] <http://www.creativecommons.org/>.

[5] <http://www.nsd1.org>.

[6] <http://dublincore.org/2003/03/24/dces#rights>.

[7] <http://www.dublincore.org/documents/dces/>.

[8] <http://www.openarchives.org/OAI/openarchivesprotocol.html#Record>.

```
<?xml version='1.0' ?>

<rdf:RDF xmlns:marcrel="http://www.loc.gov/marc.relators/"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:owl="http://www.w3.org/2002/7/owl#"
  xmlns:dcterms="http://purl.org/dc/terms/"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <rdf:Description rdf:about="http://www.loc.gov/marc.relators/">
    <dc:title xml:lang="en-US">MARC Relator Terms</dc:title>
    <dc:publisher xml:lang="en-US">Library of Congress</dc:publisher>
    <dc:description xml:lang="en-US">A list of relator terms and their associated
codes. The purpose of this list is to indicate the relationship between the resource
being described and a named person or corporate body.</dc:description>
    <dc:language xml:lang="en-US">English</dc:language>
    <dcterms:issued>2002-07-02</dcterms:issued>
    <dcterms:modified>2002-05-22</dcterms:modified>
    <dc:source rdf:resource="http://www.loc.gov/marc.relators/" />
  </rdf:Description>

  <rdf:Property rdf:about="http://www.loc.gov/marc.relators/act">
    <rdfs:label xml:lang="en-US">Actor</rdfs:label>
    <rdfs:comment xml:lang="en-US">A person who principally exhibits acting skills in
a musical or dramatic presentation or entertainment.</rdfs:comment>
    <dc:description xml:lang="en-US">Typically, the name of the Actor should be used
to indicate the person.</dc:description>
    <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
    <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/" />
    <dcterms:issued>2002-11-13</dcterms:issued>
  </rdf:Property>

  <rdf:Property rdf:about="http://www.loc.gov/marc.relators/adp">
    <rdfs:label xml:lang="en-US">Adapter</rdfs:label>
    <rdfs:comment xml:lang="en-US">A person who 1) reworks a musical composition,
usually for a different medium, or 2) rewrites novels or stories for motion pictures
or other audiovisual medium.</rdfs:comment>
    <dc:description xml:lang="en-US">Typically, the name of the Adapter should be
used to indicate the person.</dc:description>
    <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
    <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/" />
    <dcterms:issued>2002-11-13</dcterms:issued>
  </rdf:Property>

  <rdf:Property rdf:about="http://www.loc.gov/marc.relators/ann">
    <rdfs:label xml:lang="en-US">Annotator</rdfs:label>
    <rdfs:comment xml:lang="en-US">A person who writes manuscript annotations on a
printed item.</rdfs:comment>
    <dc:description xml:lang="en-US">Typically, the name of the Annotator should be
used to indicate the person.</dc:description>
    <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
    <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/" />
    <dcterms:issued>2002-11-13</dcterms:issued>
  </rdf:Property>
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<rdf:Property rdf:about="http://www.loc.gov/marc/relators/app">
  <rdfs:label xml:lang="en-US">Applicant</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Applicant should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/arc">
  <rdfs:label xml:lang="en-US">Architect</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Architect should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/arr">
  <rdfs:label xml:lang="en-US">Arranger</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who transcribes a musical composition,
usually for a different medium from that of the original; in an arrangement the
musical substance remains essentially unchanged.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Arranger should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/art">
  <rdfs:label xml:lang="en-US">Artist</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person (e.g., a painter) 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].</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Graphic technician</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Artist should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/asg">
  <rdfs:label xml:lang="en-US">Assignee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization to whom a license for
printing or publishing has been transferred.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Assignee should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
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```
<rdf:Property rdf:about="http://www.loc.gov/marc.relators/asn">
  <rdfs:label xml:lang="en-US">Associated name</rdfs:label>
  <rdfs:comment xml:lang="en-US">A general relator for a name associated with or
found in an item or collection, or which cannot be determined to be that of a Former
owner [fmo] or other designated relator indicative of provenance.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Associated name
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/att">
  <rdfs:label xml:lang="en-US">Attributed name</rdfs:label>
  <rdfs:comment xml:lang="en-US">Relates an author, artist, etc. to a work for
which there is or once was substantial authority for designating that person as
author, creator, etc. of the work.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Supposed name</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Attributed name
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/auc">
  <rdfs:label xml:lang="en-US">Auctioneer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body in charge of the
estimation and public auctioning of goods, particularly books, artistic works,
etc.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Auctioneer should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/aut">
  <rdfs:label xml:lang="en-US">Author</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Joint author</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Author should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <owl:equivalentProperty rdf:resource="http://purl.org/dc/elements/1.1/creator" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/agt">
  <rdfs:label xml:lang="en-US">Author in quotations or text extracts</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person whose work is largely quoted or extracted
```


in a works to which he or she did not contribute directly. Such quotations are found particularly in exhibition catalogs, collections of photographs, etc.

<dc:description xml:lang="en-US">Typically, the name of the Author in quotations or text extracts should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/aft">

<rdfs:label xml:lang="en-US">Author of afterword, colophon, etc.</rdfs:label>

<rdfs:comment xml:lang="en-US">A person or corporate body responsible for an afterword, postface, colophon, etc. but who is not the chief author of a work.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Author of afterword, colophon, etc. should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/aud">

<rdfs:label xml:lang="en-US">Author of dialog</rdfs:label>

<rdfs:comment xml:lang="en-US">A person or corporate body responsible for the dialog or spoken commentary for a screenplay or sound recording.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Author of dialog should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/aui">

<rdfs:label xml:lang="en-US">Author of introduction, etc.</rdfs:label>

<rdfs:comment xml:lang="en-US">A person or corporate body responsible for an introduction, preface, foreword, or other critical introductory matter, but who is not the chief author.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Author of introduction, etc. should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/aus">

<rdfs:label xml:lang="en-US">Author of screenplay, etc.</rdfs:label>

<rdfs:comment xml:lang="en-US">A person or corporate body responsible for a motion picture screenplay, dialog, spoken commentary, etc.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Author of screenplay, etc. should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ant">
  <rdfs:label xml:lang="en-US">Bibliographic antecedent</rdfs:label>
  <rdfs:comment xml:lang="en-US">The author 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Bibliographic
antecedent should be used to indicate the person.</dc:description>
  <!-- AP Not sure about this one
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  -->
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bnd">
  <rdfs:label xml:lang="en-US">Binder</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Binder should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bdd">
  <rdfs:label xml:lang="en-US">Binding designer</rdfs:label>
  <dc:description xml:lang="en-US">Used for Designer of binding</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Binding designer
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bkd">
  <rdfs:label xml:lang="en-US">Book designer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or firm responsible for the entire
graphic design of a book, including arrangement of type and illustration, choice of
materials, and process used.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Designer of book</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Book designer should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bkp">
  <rdfs:label xml:lang="en-US">Book producer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or firm responsible for the production
of books and other print media, if specific codes (e.g., [bkd], [egr], [tyd], [prt])
are not desired.</rdfs:comment>
```

```
<dc:description xml:lang="en-US">Used for Producer of book</dc:description>
<dc:description xml:lang="en-US">Typically, the name of the Book producer should
be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bjd">
<rdfs:label xml:lang="en-US">Bookjacket designer</rdfs:label>
<dc:description xml:lang="en-US">Used for Designer of bookjacket</dc:description>
<dc:description xml:lang="en-US">Typically, the name of the Bookjacket designer
should be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bpd">
<rdfs:label xml:lang="en-US">Bookplate designer</rdfs:label>
<dc:description xml:lang="en-US">Used for Designer of bookplate</dc:description>
<dc:description xml:lang="en-US">Typically, the name of the Bookplate designer
should be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/bsl">
<rdfs:label xml:lang="en-US">Bookseller</rdfs:label>
<dc:description xml:lang="en-US">Typically, the name of the Bookseller should be
used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cll">
<rdfs:label xml:lang="en-US">Calligrapher</rdfs:label>
<dc:description xml:lang="en-US">Typically, the name of the Calligrapher should
be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ctg">
<rdfs:label xml:lang="en-US">Cartographer</rdfs:label>
<dc:description xml:lang="en-US">Typically, the name of the Cartographer should
be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc.relators/cns">
  <rdfs:label xml:lang="en-US">Censor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A censor, bowdlerizer, expurgator, etc., official
or private.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Bowdlerizer</dc:description>
  <dc:description xml:lang="en-US">Used for Expurgator</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Censor should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/chr">
  <rdfs:label xml:lang="en-US">Choreographer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who composes or arranges dances or other
movements (e.g., "master of swords") for a musical or dramatic presentation or
entertainment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Choreographer should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/cli">
  <rdfs:label xml:lang="en-US">Client</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization for whom another person
or organization is acting.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Client should be used
to indicate the person.</dc:description>
  <!-- AP Not sure about this one.
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  -->
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/clb">
  <rdfs:label xml:lang="en-US">Collaborator</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body that takes a limited
part in the elaboration of a work of another person or corporate body that brings
complements (e.g., appendices, notes) to the work.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Collaborator should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/col">
  <rdfs:label xml:lang="en-US">Collector</rdfs:label>
```

```
<rdfs:comment xml:lang="en-US">A person who has brought together material from various sources, which has been arranged, described, and cataloged as a collection. The collector is neither the creator of the material nor the person to whom manuscripts in the collection may have been addressed.</rdfs:comment>
```

```
<dc:description xml:lang="en-US">Typically, the name of the Collector should be used to indicate the person.</dc:description>
```

```
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/clt">
  <rdfs:label xml:lang="en-US">Collotyper</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Collotyper should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cmm">
  <rdfs:label xml:lang="en-US">Commentator</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who provides interpretation, analysis, or a discussion of the subject matter on a recording, motion picture, or other audiovisual medium.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Commentator should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cwt">
  <rdfs:label xml:lang="en-US">Commentator for written text</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body responsible for the commentary or explanatory notes about a text. For the writer of manuscript annotations in a printed book, use Annotator [ann].</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Commentator for written text should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/com">
  <rdfs:label xml:lang="en-US">Compiler</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who produces a work or publication by selecting and putting together material from the works of various persons or bodies.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Compiler should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
```

```
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cpl">
  <rdfs:label xml:lang="en-US">Complainant</rdfs:label>
  <rdfs:comment xml:lang="en-US">The party who applies to the courts for redress,
usually in an equity proceeding.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Complainant should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cpt">
  <rdfs:label xml:lang="en-US">Complainant-appellant</rdfs:label>
  <rdfs:comment xml:lang="en-US">A complainant who takes an appeal from one court
or jurisdiction to another to reverse the judgment, usually in an equity
proceeding.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Complainant-appellant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cpe">
  <rdfs:label xml:lang="en-US">Complainant-appellee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A complainant against whom an appeal is taken from
one court or jurisdiction to another to reverse the judgment, usually in an equity
proceeding.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Complainant-appellee
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cmp">
  <rdfs:label xml:lang="en-US">Composer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who creates a musical work, usually a
piece of music in manuscript or printed form.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Composer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cmt">
  <rdfs:label xml:lang="en-US">Compositor</rdfs:label>
  <dc:description xml:lang="en-US">Used for Typesetter</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Compositor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
```

```
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ccp">
  <rdfs:label xml:lang="en-US">Conceptor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Conceptor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cnd">
  <rdfs:label xml:lang="en-US">Conductor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who directs a performing group
(orchestra, chorus, opera, etc.).</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Conductor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/csl">
  <rdfs:label xml:lang="en-US">Consultant</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person called upon for professional advice or
services in a specialized field of knowledge or training.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Consultant should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/csp">
  <rdfs:label xml:lang="en-US">Consultant to a project</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Consultant to a
project should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cos">
  <rdfs:label xml:lang="en-US">Contestant</rdfs:label>
  <rdfs:comment xml:lang="en-US">The party who opposes, resists, or disputes, in a
```

```
court of law, a claim, decision, result, etc.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contestant should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cot">
  <rdfs:label xml:lang="en-US">Contestant-appellant</rdfs:label>
  <rdfs:comment xml:lang="en-US">A contestant who takes an appeal from one court of
law or jurisdiction to another to reverse the judgment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contestant-appellant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/coe">
  <rdfs:label xml:lang="en-US">Contestant-appellee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A contestant against whom an appeal is taken from
one court of law or jurisdiction to another to reverse the judgment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contestant-appellee
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cts">
  <rdfs:label xml:lang="en-US">Contestee</rdfs:label>
  <rdfs:comment xml:lang="en-US">The party defending a claim, decision, result,
etc. being opposed, resisted, or disputed in a court of law.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contestee should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ctt">
  <rdfs:label xml:lang="en-US">Contestee-appellant</rdfs:label>
  <rdfs:comment xml:lang="en-US">A contestee who takes an appeal from one court or
jurisdiction to another to reverse the judgment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contestee-appellant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cte">
  <rdfs:label xml:lang="en-US">Contestee-appellee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A contestee against whom an appeal is taken from
one court or jurisdiction to another to reverse the judgment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contestee-appellee
should be used to indicate the person.</dc:description>
```



```
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ctr">
  <rdfs:label xml:lang="en-US">Contractor</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or corporate body who enters into a
contract with another person or corporate body to perform a specific
task.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contractor should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ctb">
  <rdfs:label xml:lang="en-US">Contributor</rdfs:label>
  <rdfs:comment xml:lang="en-US">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 for someone whose sole function in relation to a work is as author,
editor, compiler or translator.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Contributor should be
used to indicate the person.</dc:description>
  <owl:equivalentProperty
rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cpc">
  <rdfs:label xml:lang="en-US">Copyright claimant</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person listed as a copyright owner at the time
of registration. Copyright can be granted or later transferred to another person or
agent, at which time the claimant becomes the copyright holder.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Copyright claimant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cph">
  <rdfs:label xml:lang="en-US">Copyright holder</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Copyright holder
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/crr">
  <rdfs:label xml:lang="en-US">Corrector</rdfs:label>
  <rdfs:comment xml:lang="en-US">A corrector of manuscripts, such as the
scriptorium official who corrected the work of a scribe. For printed matter, use
Proofreader [pfr].</rdfs:comment>
```

```
<dc:description xml:lang="en-US">Typically, the name of the Corrector should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/crp">
<rdfs:label xml:lang="en-US">Correspondent</rdfs:label>
<rdfs:comment xml:lang="en-US">A person or organization who was either the writer
or recipient of a letter or other communication.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Correspondent should
be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cst">
<rdfs:label xml:lang="en-US">Costume designer</rdfs:label>
<rdfs:comment xml:lang="en-US">A person who designs or makes costumes, fixes
hair, etc., for a musical or dramatic presentation or entertainment.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Costume designer
should be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cov">
<rdfs:label xml:lang="en-US">Cover designer</rdfs:label>
<rdfs:comment xml:lang="en-US">The person responsible for the graphic design of a
book cover, album cover, slipcase, box, container, etc. For the person responsible
for the graphic design of an entire book, use Book designer; for book jackets, use
Bookjacket designer.</rdfs:comment>
<dc:description xml:lang="en-US">Used for Designer of cover</dc:description>
<dc:description xml:lang="en-US">Typically, the name of the Cover designer should
be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cre">
<rdfs:label xml:lang="en-US">Creator</rdfs:label>
<rdfs:comment xml:lang="en-US">A person or corporate body responsible for the
intellectual or artistic content of a work.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Creator should be
used to indicate the person.</dc:description>
<owl:equivalentProperty rdf:resource="http://purl.org/dc/elements/1.1/creator"/>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
```

</rdf:Property>

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/cur">
  <rdfs:label xml:lang="en-US">Curator of an exhibition</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who is responsible for conceiving and
organizing an exhibition.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Curator of an
exhibition should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dnc">
  <rdfs:label xml:lang="en-US">Dancer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who principally exhibits dancing skills
in a musical or dramatic presentation or entertainment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Dancer should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dte">
  <rdfs:label xml:lang="en-US">Dedicatee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization to whom a book,
manuscript, etc., is dedicated (not the recipient of a gift).</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Dedicatee should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dto">
  <rdfs:label xml:lang="en-US">Dedicator</rdfs:label>
  <rdfs:comment xml:lang="en-US">The author of a dedication, which may be a formal
statement or in epistolary or verse form.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Dedicator should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dfd">
  <rdfs:label xml:lang="en-US">Defendant</rdfs:label>
  <rdfs:comment xml:lang="en-US">The party defending or denying allegations made in
a suit and against whom relief or recovery is sought in the courts, usually in a
legal action.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Defendant should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
```

</rdf:Property>

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dft">
  <rdfs:label xml:lang="en-US">Defendant-appellant</rdfs:label>
  <rdfs:comment xml:lang="en-US">A defendant who takes an appeal from one court or
jurisdiction to another to reverse the judgment, usually in a legal
action.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Defendant-appellant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dfe">
  <rdfs:label xml:lang="en-US">Defendant-appellee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A defendant against whom an appeal is taken from
one court or jurisdiction to another to reverse the judgment, usually in a legal
action.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Defendant-appellee
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dgg">
  <rdfs:label xml:lang="en-US">Degree grantor</rdfs:label>
  <rdfs:comment xml:lang="en-US">The corporate body granting a degree for which the
thesis or dissertation described was presented.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Degree grantor should
be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dln">
  <rdfs:label xml:lang="en-US">Delineator</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization executing technical
drawings from others' designs.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Delineator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dpc">
  <rdfs:label xml:lang="en-US">Depicted</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or group depicted or portrayed in a
work, particularly in a work of art.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Depicted should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/subject" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
```

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<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dpt">
  <rdfs:label xml:lang="en-US">Depositor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization placing material in the
physical custody of a library or repository without transferring the legal
title.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Depositor should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dsr">
  <rdfs:label xml:lang="en-US">Designer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization responsible for design if
specific codes (e.g., [bkd], [tyd]) are not desired.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Designer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/drt">
  <rdfs:label xml:lang="en-US">Director</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who is responsible for the general
management of a work or who supervises the production of a performance for stage,
screen, or sound recording.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Director should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dis">
  <rdfs:label xml:lang="en-US">Dissertant</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who presents a thesis for a university or
higher-level educational degree.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Dissertant should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dst">
  <rdfs:label xml:lang="en-US">Distributor</rdfs:label>
  <rdfs:comment xml:lang="en-US">An agent or agency that has exclusive or shared
marketing rights for an item.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Distributor should be
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used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dnr">
  <rdfs:label xml:lang="en-US">Donor</rdfs:label>
  <rdfs:comment xml:lang="en-US">The donor of a book, manuscript, etc., to its
present owner. Donors to previous owners are designated as Former owner [fmo] or
Inscriber [ins].</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Donor should be used
to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/drm">
  <rdfs:label xml:lang="en-US">Draftsman</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who prepares artistic or technical
drawings.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Technical draftsman</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Draftsman should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/dub">
  <rdfs:label xml:lang="en-US">Dubious author</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body to which authorship has
been dubiously or incorrectly ascribed.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Dubious author should
be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/edt">
  <rdfs:label xml:lang="en-US">Editor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who prepares for publication a work not
primarily his/her own, such as by elucidating text, adding introductory or other
critical matter, or technically directing an editorial staff.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Editor should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/elt">
  <rdfs:label xml:lang="en-US">Electrotypewriter</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Electrotypewriter should
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be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/eng">
  <rdfs:label xml:lang="en-US">Engineer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization that is responsible for
technical planning and design, particularly with construction.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Engineer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/egr">
  <rdfs:label xml:lang="en-US">Engraver</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Engraver should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/etr">
  <rdfs:label xml:lang="en-US">Etcher</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Etcher should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/exp">
  <rdfs:label xml:lang="en-US">Expert</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person in charge of the description and
appraisal of the value of goods, particularly rare items, works of art,
etc.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Appraiser</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Expert should be used
to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/fac">
  <rdfs:label xml:lang="en-US">Facsimilist</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or body that executed the
facsimile.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Copier</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Facsimilist should be
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used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/flm">
  <rdfs:label xml:lang="en-US">Film editor</rdfs:label>
  <rdfs:comment xml:lang="en-US">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).</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Motion picture editor</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Film editor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/frg">
  <rdfs:label xml:lang="en-US">Forger</rdfs:label>
  <dc:description xml:lang="en-US">Used for Copier</dc:description>
  <dc:description xml:lang="en-US">Used for Counterfeiter</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Forger should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/fmo">
  <rdfs:label xml:lang="en-US">Former owner</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization who owned an item at
any time in the past. Includes those to whom the material was once presented. The
person or organization giving the item to the present owner is designated as Donor
[dnr]</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Former owner should
be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/fnd">
  <rdfs:label xml:lang="en-US">Funder</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or agency that furnished financial
support for the production of the work.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Funder should be used
to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
<!-- AP Not sure what's heppened here - something missing!
```



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<rdf:Property rdf:about="http://www.loc.gov/marc.relators/">
  <rdfs:label xml:lang="en-US"></rdfs:label>
  <dc:description xml:lang="en-US">Used for Artist</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the should be used to
indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
-->
<rdf:Property rdf:about="http://www.loc.gov/marc.relators/hnr">

  <rdfs:label xml:lang="en-US">Honoree</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person in memory or honor of whom a book,
manuscript, etc. is donated.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Memorial</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Honoree should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
<rdf:Property rdf:about="http://www.loc.gov/marc.relators/hst">
  <rdfs:label xml:lang="en-US">Host</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who is invited or regularly leads a
program (often broadcast) that includes other guests, performers, etc. (e.g., talk
show host).</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Host should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/ilu">
  <rdfs:label xml:lang="en-US">Illuminator</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Illuminator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/ill">
  <rdfs:label xml:lang="en-US">Illustrator</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who conceives, and perhaps also
implements, a design or illustration, usually to accompany a written
text.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Illustrator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
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<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ins">
  <rdfs:label xml:lang="en-US">Inscriber</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who signs a presentation
statement.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Inscriber should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/itr">
  <rdfs:label xml:lang="en-US">Instrumentalist</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who principally plays an instrument in a
musical or dramatic presentation or entertainment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Instrumentalist
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ive">
  <rdfs:label xml:lang="en-US">Interviewee</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Interviewee should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ivr">
  <rdfs:label xml:lang="en-US">Interviewer</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Interviewer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/inv">
  <rdfs:label xml:lang="en-US">Inventor</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Inventor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lsa">
  <rdfs:label xml:lang="en-US">Landscape architect</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization whose work involves
```

coordinating the arrangement of existing and proposed land features and structures.</rdfs:comment>

```
<dc:description xml:lang="en-US">Typically, the name of the Landscape architect should be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/len">
<rdfs:label xml:lang="en-US">Lender</rdfs:label>
<rdfs:comment xml:lang="en-US">A person or organization permitting the temporary use of a book, manuscript, etc., such as for photocopying or microfilming.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Lender should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lil">
<rdfs:label xml:lang="en-US">Libelant</rdfs:label>
<rdfs:comment xml:lang="en-US">The party who files a libel in an ecclesiastical or admiralty case.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Libelant should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lit">
<rdfs:label xml:lang="en-US">Libelant-appellant</rdfs:label>
<rdfs:comment xml:lang="en-US">A libelant who takes an appeal from one ecclesiastical court or admiralty to another to reverse the judgment.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Libelant-appellant should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lie">
<rdfs:label xml:lang="en-US">Libelant-appellee</rdfs:label>
<rdfs:comment xml:lang="en-US">A libelant against whom an appeal is taken from one ecclesiastical court or admiralty to another to reverse the judgment.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Libelant-appellee should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lee">
<rdfs:label xml:lang="en-US">Libelee</rdfs:label>
```

```
<rdfs:comment xml:lang="en-US">The party against whom a libel has been filed in
an ecclesiastical court or admiralty.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Libelee should be
used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/let">
<rdfs:label xml:lang="en-US">Libelee-appellant</rdfs:label>
<rdfs:comment xml:lang="en-US">A libelee who takes an appeal from one
ecclesiastical court or admiralty to another to reverse the judgment.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Libelee-appellant
should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lee">
<rdfs:label xml:lang="en-US">Libelee-appellee</rdfs:label>
<rdfs:comment xml:lang="en-US">A libelee against whom an appeal is taken from one
ecclesiastical court or admiralty to another to reverse the judgment.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Libelee-appellee
should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lbt">
<rdfs:label xml:lang="en-US">Librettist</rdfs:label>
<rdfs:comment xml:lang="en-US">The writer of the text of an opera, oratorio,
etc.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Librettist should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor">
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lse">
<rdfs:label xml:lang="en-US">Licensee</rdfs:label>
<rdfs:comment xml:lang="en-US">The original recipient of the right to print or
publish.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Licensee should be
used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lso">
<rdfs:label xml:lang="en-US">Licensor</rdfs:label>
<rdfs:comment xml:lang="en-US">The signer of the license, imprimatur,
etc.</rdfs:comment>
```

```
<dc:description xml:lang="en-US">Used for Imprimatur</dc:description>
<dc:description xml:lang="en-US">Typically, the name of the Licensor should be
used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/litg">
  <rdfs:label xml:lang="en-US">Lithographer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Lithographer should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/lyr">
  <rdfs:label xml:lang="en-US">Lyricist</rdfs:label>
  <rdfs:comment xml:lang="en-US">The writer of the text of a song.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Lyricist should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/mrk">
  <rdfs:label xml:lang="en-US">Markup editor</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization performing the coding
of SGML, HTML, or XML markup of metadata, text, etc..</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Markup editor should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/mdc">
  <rdfs:label xml:lang="en-US">Metadata contact</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization primarily responsible
for compiling and maintaining the original description of a metadata set (e.g.,
geospatial metadata set).</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Metadata contact
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/mte">
```

```
<rdfs:label xml:lang="en-US">Metal-engraver</rdfs:label>
<dc:description xml:lang="en-US">Typically, the name of the Metal-engraver should
be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/mod">
  <rdfs:label xml:lang="en-US">Moderator</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who leads a program (often broadcast)
where topics are discussed, usually with participation of experts in fields related
to the discussion.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Moderator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/mon">
  <rdfs:label xml:lang="en-US">Monitor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization that supervises
compliance with the contract and is responsible for the report and controls its
distribution. Sometimes referred to as the grantee, or controlling
agency.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Monitor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/mus">
  <rdfs:label xml:lang="en-US">Musician</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Musician should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/nrt">
  <rdfs:label xml:lang="en-US">Narrator</rdfs:label>
  <rdfs:comment xml:lang="en-US">The speaker who relates the particulars of an act,
occurrence, or course of events.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Narrator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
```

```
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/opn">
  <rdfs:label xml:lang="en-US">Opponent</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or corporate body responsible for
opposing a thesis or dissertation.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Opponent should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/orm">
  <rdfs:label xml:lang="en-US">Organizer of meeting</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or corporate body responsible for
organizing a meeting for which an item is the report or proceedings.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Organizer of meeting
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/org">
  <rdfs:label xml:lang="en-US">Originator</rdfs:label>
  <rdfs:comment xml:lang="en-US">The author or agency 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Principal investigator</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Originator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<!-- AP I don't think this belongs in this list - it doesn't make much sense
      to me
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/oth">
  <rdfs:label xml:lang="en-US">Other</rdfs:label>
  <rdfs:comment xml:lang="en-US">relator codes from other lists which have no
equivalent in the MARC list or for terms which have not been assigned a
code.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Other should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

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```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/own">
  <rdfs:label xml:lang="en-US">Owner</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization that currently owns an
item or collection.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Owner should be used
to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ppm">
  <rdfs:label xml:lang="en-US">Papermaker</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Papermaker should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pta">
  <rdfs:label xml:lang="en-US">Patent applicant</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or corporate body that applied for a
patent.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Patent applicant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pth">
  <rdfs:label xml:lang="en-US">Patent holder</rdfs:label>
  <dc:description xml:lang="en-US">Used for Patentee</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Patent holder should
be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pat">
  <rdfs:label xml:lang="en-US">Patron</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person responsible for commissioning a work.
Usually a patron uses his or her means or influence to support the work of artists,
writers, etc. This includes those who commission and pay for individual
works.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Patron should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```



```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/prf">
  <rdfs:label xml:lang="en-US">Performer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who exhibits musical or acting skills i 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.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Performer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pht">
  <rdfs:label xml:lang="en-US">Photographer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization responsible for taking
photographs, whether they are used in their original form or as
reproductions.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Photographer should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ptf">
  <rdfs:label xml:lang="en-US">Plaintiff</rdfs:label>
  <rdfs:comment xml:lang="en-US">The party who complains or sues in court in a
personal action, usually in a legal proceeding.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Plaintiff should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ptt">
  <rdfs:label xml:lang="en-US">Plaintiff-appellant</rdfs:label>
  <rdfs:comment xml:lang="en-US">A plaintiff who takes an appeal from one court or
jurisdiction to another to reverse the judgment, usually in a legal
proceeding.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Plaintiff-appellant
should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pte">
  <rdfs:label xml:lang="en-US">Plaintiff-appellee</rdfs:label>
  <rdfs:comment xml:lang="en-US">A plaintiff against whom an appeal is taken from
one court or jurisdiction to another to reverse the judgment, usually in a legal
proceeding.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Plaintiff-appellee
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should be used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/plt">
  <rdfs:label xml:lang="en-US">Platemaker</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Platemaker should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/prt">
  <rdfs:label xml:lang="en-US">Printer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization who prints texts,
whether from type or plates.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Printer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pop">
  <rdfs:label xml:lang="en-US">Printer of plates</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person or organization who prints
illustrations from plates.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Plates, Printer of</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Printer of plates
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/prm">
  <rdfs:label xml:lang="en-US">Printmaker</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who makes a relief, intaglio, or
planographic printing surface..</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Printmaker should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/prc">
  <rdfs:label xml:lang="en-US">Process contact</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization primarily responsible for
performing or initiating a process, such as is done with the collection of metadata
sets.</rdfs:comment>
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<dc:description xml:lang="en-US">Typically, the name of the Process contact
should be used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pro">
  <rdfs:label xml:lang="en-US">Producer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who is responsible for the making of a
motion picture, including business aspects, management of the productions, and the
commercial success of the work.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Producer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/prd">
  <rdfs:label xml:lang="en-US">Production personnel</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who is associated with the production
(props, lighting, special effects, etc.) of a musical or dramatic presentation or
entertainment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Production personnel
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/prg">
  <rdfs:label xml:lang="en-US">Programmer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or corporate body responsible for the
creation and/or maintenance of computer program design documents, source code, and
machine-executable digital files and supporting documentation.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Programmer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/pfr">
  <rdfs:label xml:lang="en-US">Proofreader</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who corrects printed matter. For
manuscripts, use Corrector [crr].</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Proofreader should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
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<rdf:Property rdf:about="http://www.loc.gov/marc.relators/pbl">
  <rdfs:label xml:lang="en-US">Publisher</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Publisher should be
used to indicate the person.</dc:description>
  <owl:equivalentProperty
rdf:resource="http://purl.org/dc/elements/1.1/publisher"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/pbd">
  <rdfs:label xml:lang="en-US">Publishing director</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who presides over the elaboration of a
collective work to ensure its coherence or continuity. This includes editors-in-
chief, literary editors, editors of series, etc.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Publishing director
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/rcp">
  <rdfs:label xml:lang="en-US">Recipient</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person to whom correspondence is
addressed.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Recipient should be
used to indicate the person.</dc:description>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/rce">
  <rdfs:label xml:lang="en-US">Recording engineer</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who supervises the technical aspects of a
sound or video recording session.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Recording engineer
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/red">
  <rdfs:label xml:lang="en-US">Redactor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who writes or develops the framework for
an item without being intellectually responsible for its content.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Redactor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
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</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/ren">

<rdfs:label xml:lang="en-US">Renderer</rdfs:label>

<rdfs:comment xml:lang="en-US">The draftsman who prepares drawings of architectural designs (i.e., renderings) in accurate, representational perspective to show what the project will look like when completed.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Renderer should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rpt">

<rdfs:label xml:lang="en-US">Reporter</rdfs:label>

<rdfs:comment xml:lang="en-US">A person who writes or presents reports of news or current events on air or in print.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Reporter should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rth">

<rdfs:label xml:lang="en-US">Research team head</rdfs:label>

<rdfs:comment xml:lang="en-US">The person or corporate body that directed or managed a research project.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Research team head should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rtm">

<rdfs:label xml:lang="en-US">Research team member</rdfs:label>

<rdfs:comment xml:lang="en-US">The person or corporate body that participated in a research project but whose role did not involve direction or management of it.</rdfs:comment>

<dc:description xml:lang="en-US">Typically, the name of the Research team member should be used to indicate the person.</dc:description>

<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>

<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">

<dcterms:issued>2002-11-13</dcterms:issued>

</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/res">

<rdfs:label xml:lang="en-US">Researcher</rdfs:label>

<rdfs:comment xml:lang="en-US">The person or corporate body responsible for performing research.</rdfs:comment>

<dc:description xml:lang="en-US">Used for Performer of research</dc:description>

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<dc:description xml:lang="en-US">Typically, the name of the Researcher should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rsp">
<rdfs:label xml:lang="en-US">Respondent</rdfs:label>
<rdfs:comment xml:lang="en-US">The party who makes an answer to the courts
pursuant to an application for redress, usually in an equity
proceeding.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Respondent should be
used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rst">
<rdfs:label xml:lang="en-US">Respondent-appellant</rdfs:label>
<rdfs:comment xml:lang="en-US">A respondent who takes an appeal from one court or
jurisdiction to another to reverse the judgment, usually in an equity
proceeding.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Respondent-appellant
should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rse">
<rdfs:label xml:lang="en-US">Respondent-appellee</rdfs:label>
<rdfs:comment xml:lang="en-US">A respondent against whom an appeal is taken from
one court or jurisdiction to another to reverse the judgment, usually in an equity
proceeding.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Respondent-appellee
should be used to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rev">
<rdfs:label xml:lang="en-US">Reviewer</rdfs:label>
<rdfs:comment xml:lang="en-US">A person or corporate body responsible for the
review of book, motion picture, performance, etc.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Reviewer should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/rbr">
<rdfs:label xml:lang="en-US">Rubricator</rdfs:label>
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<dc:description xml:lang="en-US">Typically, the name of the Rubricator should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/sce">
  <rdfs:label xml:lang="en-US">Scenarist</rdfs:label>
  <rdfs:comment xml:lang="en-US">The author of a motion picture
screenplay.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Scenarist should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/sad">
  <rdfs:label xml:lang="en-US">Scientific advisor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who brings scientific, pedagogical, or
historical competence to the conception and realization on a work, particularly in
the case of audio-visual items.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Scientific advisor
should be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/scr">
  <rdfs:label xml:lang="en-US">Scribe</rdfs:label>
  <rdfs:comment xml:lang="en-US">An amanuensis and for a writer of manuscripts
proper. For a person who makes pen-facsimiles, use Facsimilist [fac].</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Scribe should be used
to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/scl">
  <rdfs:label xml:lang="en-US">Sculptor</rdfs:label>
  <rdfs:comment xml:lang="en-US"> the more general term Artist [art] is not
desired.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Sculptor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/sec">
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<rdfs:label xml:lang="en-US">Secretary</rdfs:label>
<rdfs:comment xml:lang="en-US">A recorder, redactor, or other person responsible
for expressing the views of a corporate body.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Secretary should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/sgn">
<rdfs:label xml:lang="en-US">Signer</rdfs:label>
<rdfs:comment xml:lang="en-US">The person whose signature appears without a
presentation or other statement indicative of provenance. When there is a
presentation statement, use Inscriber [ins].</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Signer should be used
to indicate the person.</dc:description>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/sng">
<rdfs:label xml:lang="en-US">Singer</rdfs:label>
<rdfs:comment xml:lang="en-US">A person who uses his or her voice with or without
instrumental accompaniment to produce music. A singer's performance may or may not
include actual words.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Singer should be used
to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/spk">
<rdfs:label xml:lang="en-US">Speaker</rdfs:label>
<rdfs:comment xml:lang="en-US">A person who participates in a program (often
broadcast) and makes a formalized contribution or presentation generally prepared in
advance.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Speaker should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc/relators/spn">
<rdfs:label xml:lang="en-US">Sponsor</rdfs:label>
<rdfs:comment xml:lang="en-US">The person or agency that issued a contract or
under the auspices of which a work has been written, printed, published,
etc.</rdfs:comment>
<dc:description xml:lang="en-US">Typically, the name of the Sponsor should be
used to indicate the person.</dc:description>
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
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<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
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<rdf:Property rdf:about="http://www.loc.gov/marc/relators/stn">
  <rdfs:label xml:lang="en-US">Standards body</rdfs:label>
  <rdfs:comment xml:lang="en-US">A corporate body or agency responsible for the
development or enforcement of a standard.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Standards body should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
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<rdf:Property rdf:about="http://www.loc.gov/marc/relators/str">
  <rdfs:label xml:lang="en-US">Stereotyper</rdfs:label>
  <dc:description xml:lang="en-US">Typically, the name of the Stereotyper should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/stl">
  <rdfs:label xml:lang="en-US">Storyteller</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person relaying a story with creative and/or
theatrical interpretation.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Storyteller should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/srv">
  <rdfs:label xml:lang="en-US">Surveyor</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person or organization who does measurements of
tracts of land, etc. to determine location, forms, and boundaries.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Surveyor should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/tha">
  <rdfs:label xml:lang="en-US">Thesis advisor</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person under whose supervision a degree
candidate develops and presents a thesis, meacute;moire, or text of a
dissertation.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Thesis advisor should
be used to indicate the person.</dc:description>
```

```
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
<dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/trc">
  <rdfs:label xml:lang="en-US">Transcriber</rdfs:label>
  <rdfs:comment xml:lang="en-US">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].</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Transcriber should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/trl">
  <rdfs:label xml:lang="en-US">Translator</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who renders a text from one language into
another, or from an older form of a language into the modern form.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Translator should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/tyd">
  <rdfs:label xml:lang="en-US">Type designer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person who designed the type face used in a
particular item.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Designer of type</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Type designer should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc/relators/tyg">
  <rdfs:label xml:lang="en-US">Typographer</rdfs:label>
  <rdfs:comment xml:lang="en-US">The person primarily responsible for choice and
arrangement of type used in an item. If the typographer is also responsible for other
aspects of the graphic design of a book (e.g., Book designer [bkd]), codes for both
functions may be needed.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Typographer should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/" />
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>
```

```
<rdf:Property rdf:about="http://www.loc.gov/marc.relators/voc">
  <rdfs:label xml:lang="en-US">Vocalist</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who principally exhibits singing skills
in a musical or dramatic presentation or entertainment.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Vocalist should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/wit">
  <rdfs:label xml:lang="en-US">Witness</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who verifies the truthfulness of an event
or action.</rdfs:comment>
  <dc:description xml:lang="en-US">Used for Deponent</dc:description>
  <dc:description xml:lang="en-US">Used for Eyewitness</dc:description>
  <dc:description xml:lang="en-US">Used for Observer</dc:description>
  <dc:description xml:lang="en-US">Used for Onlooker</dc:description>
  <dc:description xml:lang="en-US">Used for Testifier</dc:description>
  <dc:description xml:lang="en-US">Typically, the name of the Witness should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/wde">
  <rdfs:label xml:lang="en-US">Wood-engraver</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who makes prints by cutting the image in
relief on the end-grain of a wood block.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Wood-engraver should
be used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/wdc">
  <rdfs:label xml:lang="en-US">Woodcutter</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who makes prints by cutting the image in
relief on the plank side of a wood block.</rdfs:comment>
  <dc:description xml:lang="en-US">Typically, the name of the Woodcutter should be
used to indicate the person.</dc:description>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>
  <rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc.relators/">
  <dcterms:issued>2002-11-13</dcterms:issued>
</rdf:Property>

<rdf:Property rdf:about="http://www.loc.gov/marc.relators/wam">
  <rdfs:label xml:lang="en-US">Writer of accompanying material</rdfs:label>
  <rdfs:comment xml:lang="en-US">A person who writes significant material which
accompanies a sound recording or other audiovisual material.</rdfs:comment>
```

```
<dc:description xml:lang="en-US">Typically, the name of the Writer of  
accompanying material should be used to indicate the person.</dc:description>  
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>  
<rdfs:isDefinedBy rdf:resource="http://www.loc.gov/marc/relators/">  
<dcterms:issued>2002-11-13</dcterms:issued>  
</rdf:Property>  
</rdf:RDF>
```

Date: Tue, 9 Mar 2004 16:40:05 -0500 (EST)
From: Rebecca S. Guenther <rgue@loc.gov>
To: Andy Powell <a.powell@ukoln.ac.uk>
Cc: dihl@cornell.edu
Subject: IMPORTANT: Roles

Here are my comments on your markup and where I do and don't agree. We've had some previous email on the question of the narrowness of semantics in dc:contributor. Your answer concerning the value of core vs. some of these more specific roles that are outside core is well taken. But I still argue that what is a contributor is in the mind of the beholder; i.e. it depends upon what sort of resource you are describing. If in the legal field, the plaintiff may be a contributor if it is a transcript of the proceedings. I could argue that for almost everything on the list. Also, I didn't think you were consistent in your assessment (not that it was an easy job!). So here are those that I don't entirely agree with:

Applicant: if the resource were an application for something, this would certainly be a contributor.

Attributed name: "Use to relate an author, artist, etc. to a work for which there is or once was substantial authority for designating that person as author, creator, etc. of the work."
This says it is possibly a contributor, although it is not certain, so should be a refinement of contributor.

Auctioneer: what if the resource is a list of items to be auctioned; the auctioneer would have contributed.

Bibliographic antecedent: "Use for the author 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."
The only reason I could see for you not considering this as contributor is the 1:1 principle, but I don't think you can control how people are describing these works. We already know that there is lots of controversy about that. Certainly the "bibliographic antecedent" played a role in the creation of the resource.

Client: "a person or organization for whom another person or organization is acting"
This is what is used e.g. for the owner of a house that an architect designed. I would certainly think the client would have input in that design so would consider a contributor.

Complainant: "Use for the party who applies to the courts for redress, usually in an equity proceeding."
I won't list all of the legal terms that are in this document, but for any of them, if the resource is the proceeding itself, I would consider them contributors to the content of the resource. You have excluded all of the legal terms (and there are lots of them).

Contractor: Often the contractor does all the intellectual work.

Copyright claimant: if the resource is a copyright registration, then this and copyright holder would be contributors.

Dedicator: Use for the author of a dedication, which may be a formal statement or in epistolary or verse form.
If some famous person wrote the dedication, I would bet you would want to consider him a contributor-- it is part of the intellectual content,

although perhaps a small part.

Degree grantor: wouldn't that institution have provided much that contributed to the intellectual content? Can you imagine all these theses and dissertation projects not being able to call the institution a contributor??

Distributor: should this be a subProperty of publisher? (or maybe we're not making these associations)

Expert: "Use for a person in charge of the description and appraisal of the value of goods, particularly rare items, works of art, etc. "
What if an art catalog of some sort?

Under funder: The part highlighted as being incomplete I can remove-- it was part of a reference that should not be there.

Monitor: "Use for a person or organization that supervises compliance with the contract and is responsible for the report and controls its distribution. Sometimes referred to as the grantee, or controlling agency."

This you indicated was refinement of contributor, but why this and not others that don't have a direct contribution?

Opponent: "Use for the person or corporate body responsible for opposing a thesis or dissertation."
You have this one as contributor, but not, e.g. degree grantor.

Other: this is our extension mechanism. I can understand why you wouldn't want it to be included.

This does bring up to me how we will maintain this document if we start removing terms. But I guess that's our problem.

Patent applicant and patent holder: same as copyright; what if the resource is a description of the patent?

Patron: why this and not client? Seem to be similar roles.

Publisher: should this be a subProperty of Contributor, since creator is?

Witness: you've included this one as contributor, but none of the other legal terms (which I would argue should all be included).

This exercise brings up the question:

Are we creating a "core" list of roles? Previous discussion said no, we don't want to do that. Application profiles can do that.
or

Are we just saying that the term does or does not refine contributor? But then you have to think broadly what the possible resource could be which is being described.

This exercise again says to me that maybe it isn't best to decide for others what they want to consider as contributors, since it depends on what they're describing.

So where do we go from here? If you want to comment on those above, I'll just accept it and update the document. My argument for some not mentioned above was the need for access to the resource from the name whose role is the term from this list. You answered that by saying use the term as one from the marc namespace. I'll accept that, although I still question whether we should be doing this. It also means that for any new roles that we propose adding to our MARC list, we will have to bring it to the UB to

see if it refines contributor, rather than just automatically adding? This will make maintenance a bit of a headache.

Sorry for the length of this message and being such a pain. Copied to Diane so that she can comment. If we can come to some conclusion right away I can revise on Wed.-- leaving Thurs. night (I'll be in the office for most of Thurs.).

Rebecca

On Mon, 23 Feb 2004, Andy Powell wrote:

> On Thu, 19 Feb 2004, Rebecca S. Guenther wrote:
>
> > If you do the first, will you also attempt to evaluate whether the given
> > term is a refinement of dc:contributor? That seems to me what will take
> > the most time. That approach is fine with me if that's what you meant. I
> > would then see if I agree. In the meantime I might look at the list and
> > independently try to assess which should be contributor and which not.
>
> My first attempt is at
>
> <http://www.ukoln.ac.uk/metadata/dcmi/marcrel/codes.xml>
>
> Note that in addition to removing subproperty of dc:contributor in quite a
> few cases, I have also done the following
>
> - marcrel:cre --equivalentproperty--> dc:creator
> - marcrel:aut --equivalentproperty--> dc:creator
> - marcrel:pbl --equivalentproperty--> dc:publisher
> - marcrel:dpc --subpropertyof-----> dc:subject
>
> And I've corrected the URL for dc:contributor throughout! :-)
>
> I've checked this file still validates.
>
> Andy.
>

Date: Wed, 10 Mar 2004 21:28:46 -0000
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: IMPORTANT: Roles (fwd)
To: DC-USAGE@JISCMail.AC.UK

Rebecca,

> Here are my comments on your markup and where I do and don't
> agree. We've had some previous email on the question of the
> narrowness of semantics in dc:contributor. Your answer
> concerning the value of core vs. some of these more specific
> roles that are outside core is well taken. But I still argue
> that what is a contributor is in the mind of the beholder;
> i.e. it depends upon what sort of resource you are
> describing. If in the legal field, the plaintiff may be a
> contributor if it is a transcript of the proceedings. I could
> argue that for almost everything on the list. Also, I didn't
> think you were consistent in your assessment (not that it was
> an easy job!). So here are those that I don't entirely agree with:

[snip]

> This exercise again says to me that maybe it isn't best to
> decide for others what they want to consider as contributors,
> since it depends on what they're describing.

Just to clarify.... by declaring a property `example:role` a sub-property
of `dc:contributor`, we are saying that:

If you state

`_x example:role _y`

then (in all cases) I can infer that

`_x dc:contributor _y`

so we should only make the sub-property assertion where that rule holds
in all cases.

Now, if `example:role` is not declared as a sub-property of
`dc:contributor` I can't draw the conclusion above. However, it doesn't
stop you saying (where appropriate) that both

`_x example:role _y`

and

`_x dc:contributor _y`

i.e. it doesn't mean an agent who is a plaintiff can't also be a
contributor; it just means I can't infer that all plaintiffs are
contributors. Which is what we want, I think?

(I think maybe it's a bit confusing to think of these properties as
"roles": they describe relationships between a resource and an
entity/agent, just as the `dc:contributor` property does.)

Title: Use of metadata at <http://dublincore.org> - a proposal
Identifier: <http://www.bi.fhg.de/People/Thomas.Baker/ISSUES/dublincore-org/>
Date: 2004-03-10
Author: Tom Baker

The DCMI Web site currently has metadata records for more than 700 individual items -- many of which are long-obsolete working drafts. As a result, users searching the DCMI site are presented with many irrelevant hits, and the genuinely useful resources are hard to find. Moreover, the DCMI Web site is not well integrated into the OAI world. I propose we remedy this situation by doing the following:

- 1) We create a list 50 to 100 "key" resources for which DCMI can commit to maintaining excellent metadata (see Appendix A below). DCMI would keep the short-list up-to-date and use it for periodically checking the freshness of metadata. The records for these 50 to 100 key resources would have good and exhaustive keywords, accurate dates, and abstract-length descriptions.
- 2) We delete the metadata for all other resources (or at any rate rename the *.rdf metadata files so they will not be captured in the search index).
- 3) It would seem that Web sites (like DCMI's) with small numbers of documents to expose can now do this as an "OAI Static Repository" (see Appendix B below) -- perhaps by converting the RDF metadata into the XML schema "oai_dc", concatenating the schemas in one big XML file, and making that file available to OAI Static Repository harvesters.
- 4) If we get this far and the approach works well, we should not neglect to describe this method in a small document to be posted on the DCMI Web site.

APPENDIX A: Best candidates for metadata

<http://dublincore.org/>
<http://dublincore.org/about/>
<http://dublincore.org/about/bylaws/> - doesn't exist yet
<http://dublincore.org/about/copyright/> -- no metadata yet
<http://dublincore.org/banners/>
<http://dublincore.org/dcregistry/> -- no metadata yet
<http://dublincore.org/documents/>
<http://dublincore.org/documents/dc-xml-guidelines/>
<http://dublincore.org/documents/dces/>

<http://dublincore.org/documents/dcmes-xml/>
<http://dublincore.org/documents/dcml-box/>
<http://dublincore.org/documents/dcml-dcsv/>
<http://dublincore.org/documents/dcml-ieee-mou/>
<http://dublincore.org/documents/dcml-namespace/>
<http://dublincore.org/documents/dcml-period/>
<http://dublincore.org/documents/dcml-point/>
<http://dublincore.org/documents/dcml-terms/>
<http://dublincore.org/documents/dcml-type-vocabulary/>
<http://dublincore.org/documents/dcql-html/>
<http://dublincore.org/documents/dcql-rdf-xml/>
<http://dublincore.org/documents/library-application-profile/>
<http://dublincore.org/documents/usageguide/>
<http://dublincore.org/documents/usageguide/glossary.shtml> -- separate metadata??
<http://dublincore.org/documents/usageguide/qualifiers.shtml> -- separate metadata??
<http://dublincore.org/documents/wgguidelines/>
<http://dublincore.org/groups/>
<http://dublincore.org/groups/access/>
<http://dublincore.org/groups/agents/>
<http://dublincore.org/groups/architecture/>
<http://dublincore.org/groups/citation/>
<http://dublincore.org/groups/collections/>
<http://dublincore.org/groups/corporate/>
<http://dublincore.org/groups/corporate/Seattle/>
<http://dublincore.org/groups/date/>
<http://dublincore.org/groups/education/>
<http://dublincore.org/groups/environ/>
<http://dublincore.org/groups/government/>
<http://dublincore.org/groups/guide/>
<http://dublincore.org/groups/kernel/>
<http://dublincore.org/groups/languages/>
<http://dublincore.org/groups/libraries/>
<http://dublincore.org/groups/maillinglists.shtml>
<http://dublincore.org/groups/pid/>
<http://dublincore.org/groups/preservation/>
<http://dublincore.org/groups/registry/>
<http://dublincore.org/groups/standards/>
<http://dublincore.org/groups/tools/>
<http://dublincore.org/groups/type/>
<http://dublincore.org/links/>
<http://dublincore.org/news/>
<http://dublincore.org/news/adoption/>
<http://dublincore.org/news/communications/>
<http://dublincore.org/news/communications/deliverables.shtml>
<http://dublincore.org/news/documents.shtml>

<http://dublincore.org/projects/>
<http://dublincore.org/resources/>
<http://dublincore.org/resources/faq/>
<http://dublincore.org/resources/translations/>
<http://dublincore.org/schemas/>
<http://dublincore.org/sitemap.shtml>
<http://dublincore.org/sponsors/>
<http://dublincore.org/tools/>
<http://dublincore.org/usage/>
<http://dublincore.org/usage/decisions/>
<http://dublincore.org/usage/documents/>
<http://dublincore.org/usage/documents/abstract-model/> - address does not exist yet
<http://dublincore.org/usage/documents/approval/>
<http://dublincore.org/usage/documents/criteria/>
<http://dublincore.org/usage/documents/mission/>
<http://dublincore.org/usage/documents/overview/>
<http://dublincore.org/usage/documents/principles/>
<http://dublincore.org/usage/documents/process/>
<http://dublincore.org/usage/documents/profiles/>
<http://dublincore.org/usage/documents/publications/>
<http://dublincore.org/usage/documents/vocabulary-guidelines/>
<http://dublincore.org/usage/meetings/>
<http://dublincore.org/usage/terms/>
<http://dublincore.org/usage/terms/history/>
<http://dublincore.org/workshops/>

APPENDIX B: Support for OAI Static Repositories

According to <http://www.openarchives.org/news/oaistaticrepo0301010.html>,
the OAI protocol now provides:

a simple approach for exposing relatively static and
small collections of metadata records through the OAI-PMH.
The Static Repository approach is targeted at organizations
that:

- Have metadata collections ranging in size between 1
and 5000 records;
- Can make static content available through a
network-accessible Web server;
- Need a technically simpler implementation strategy
compared to acting as an OAI-PMH Repository, which
requires processing OAI-PMH requests.

A Static Repository is an XML file that is made accessible
at a persistent URL. The XML file contains metadata

records and repository information.

A Static Repository becomes accessible via OAI-PMH through the intermediation of one Static Repository Gateway.

A Static Repository Gateway uses the metadata records and repository information, provided via XML in the Static Repository, to process the six OAI-PMH requests for access to that information.

DCMI Usage Board Meeting -- Decisions
2003-09-27/28, Seattle, Washington

Participants:

Andy Powell	Rebecca Guenther (Sunday)	Traugott Koch
Diane Hillmann	Roland Schwaenzl	Andrew Wilson
Stuart Sutton	Haruki Nagata	

Tom Baker participated for part of the meeting by telephone.
Stu Weibel participated as a guest on Sunday.

TOPIC 1. Unfinished business from Ithaca (Tom) - Saturday

General points

2 meetings a year about 6 months apart seems appropriate for UB.

Tom will consolidate unfinished business from Ithaca
and new action items from Seattle into one document for
UB actions.

Ithaca Topic 03: Documentation

Action Item 1: Makx to finalise Directorate document re
explanation and rationale for case change and post to
DCMI email lists.

Action Item 2: Tom to report back to Directorate to request
them to give the issue of case change documentation a higher
priority.

Action Item 3: Tom to ask Makx to suggest that UB take over
documentation of the case change and assign a shepherd look
after the matter.

Ithaca Topic 12: DCMI Type Working Group

Decision: Type vocabulary not to be expanded, and
implementers encouraged to develop more granular
vocabularies and expose them for others to use. This
wording to appear in:

1. Decision
2. Announcement
3. Introduction to DCMI Type Vocabulary document

Action Item 4: Tom to add to the set of term attributes
proposed definitions for "broader term" and "narrower
term". Tom will use NISO standard Z39.19 (ISO 2788)
as a source for definitions.

Action Item 5: Diane will wordsmith document for reissue
on UB list.

TOPIC 02. Abstract Model (Andy) -- Saturday

Readings

Abstract Model

-- <http://www.ukoln.ac.uk/metadata/dcmi/abstract-model/>
DCMI Grammatical Principles
-- <http://dublincore.org/usage/documents/principles/>

Action Item 6: Andy to rewrite abstract model after Architecture WG meeting at Seattle to be more generic (e.g., not specifically mention DCMI properties). Will include generic description of "dumb down", statement about relationship between "dumb down" and "simple DC". Andy will gauge feeling of WG with regard to changing simple DC to consist of 16 elements.

Issue: Notion of "core" elements to be articulated somewhere.

Issue: The meeting was unable to reach consensus about whether "dumb-down" problems with audience necessitated a change to the concept of simple DC consisting of only 15 elements. The issue needs to be articulated somewhere. A final decision depends to some extent on the degree of consensus evident in the Architecture WG meeting.

Action Item 7: Diane to remove references in "Using DC" to using a label within relation if a refinement is not being used.

Action Item 8: Andy to draft some thoughts about consequences of decision that DCSV "stretches" the DC abstract model.

Action Item 9: Tom to draft statement about differences between application profile and DCMI application profile.

Decision: General feeling of the meeting was that Abstract Model, Application Profiles document, Simple DC document, and the Grammar document should be kept separate.

TOPIC 03. DCMICite and other DCSV proposals (Andy) - Sunday

DCMICite proposal was withdrawn before the meeting. DCSV was discussed in the context of the Abstract Model.

TOPIC 04. CEN "Guidelines for DC Application Profiles" (Tom) - Saturday

Action Item 10: Tom to investigate issue of URIs and URI references further.

Issue: How to handle qualified names and the potential for confusion with XML qualified names, and deal with any other restrictions that are applied to how element and term names are documented.

Issue: Purpose of application profile will tend to drive how legacy practices are documented. Guidelines need to say that legacy practices should be described as they were implemented but commented that they are no longer in use.

Action Item 11: UB to refer issue of whether CEN should assume responsibility for DCMI document (AP Guidelines) to the Advisory Board for a decision.

UB Position: UB as noted above has some issues with the

content, however UB is concerned about the principles of ownership, maintenance and process. UB suggests it might be wise to make the document more generic rather than specifically DC based.

UB needs to consider how similar situations are dealt with in the future. In general UB agrees that there is a good opportunity here to increase contacts and cooperation with other organizations. The ramifications of such relationships have yet to be teased out more completely. The UB sees the need for a general DCMI policy about how the UB relates to external maintainers of DC documents.

TOPIC 05. "Using Dublin Core" (Diane) - Saturday

Reading:

- <http://dublincore.org/documents/2003/08/26/usageguide/>
- <http://dublincore.org/documents/2003/08/26/usageguide/glossary.shtml>

Action Item 12: Diane to change document at first paragraph after heading 1.2 by eliminating parenthetical that starts with "also", and adding something about encoding schemes.

TOPIC 06. Registration of Encoding Schemes (Traugott and Stu, as guest) - Sunday

Required reading:

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

Note: all action items on this topic from Ithaca remain to be completed.

Decision: UB agrees that it must proceed with this proposal. In the first instance registration will be on the initiative of scheme owners (Andy's closed model). This requires that the owner does the registering using either their own URI or a DCMI assigned URI. However, where schemes have existing URIs such schemes could be registered at the request of implementers. UB will consider adopting IETF's InfoURI if and when this is finalised. UB to aim for implementation of the registry by 1 January 2004.

Action Item 13: Traugott to draft document setting out guidelines for the creation of URIs for encoding schemes.

Action Item 14: Tom to remind Stu to seek advice from OCLC lawyers regarding legal issues surrounding encoding scheme registration.

Action Item 15: Questions to be posed to Harry, as part of request for updates and changes, regarding authentication and whether existing authentication facility is robust enough.

TOPIC 07. Libraries profile (Rebecca) - Sunday

A brief report should identify any further actions that

may need to be undertaken by Usage Board in support of the Library Application Profile. In particular, the ISO8601 and AAT decisions from Ithaca need to be finalized. Rebecca can perhaps bring enough copies of the latest text of ISO8601 and AAT to pass around.

In addition, we should perhaps consider, in light of the CEN Guidelines, how we might go about formally reviewing the Libraries profile -- possibly even at the next meeting. I have not included a copy of the Libraries profile in the packet because of its length; the text was included in the supplementary packet for Ithaca.

Vote: UB approves SICI conditionally. If the IETF InfoURI proposal is accepted SICI will be encoded as a URI and UB approval for SICI as an encoding scheme is unnecessary. If this is the case the vote becomes redundant

Ayes: 8
Noes: -
(Unanimous)

Vote: UB approves DOI conditionally. If the IETF InfoURI proposal is accepted DOI will be encoded as a URI and UB approval for DOI as an encoding scheme is unnecessary. If this is the case the vote becomes redundant

Ayes: 8
Noes: -
(Unanimous)

Decision: Rebecca will consult with Andy as to proper URI identification of the Marc GAC and MARC Country Codes schemes. They will both live in a LC namespace.

TOPIC 08. MARC Relator Terms as Refinements for Contributor (Rebecca) - Sunday

Required reading:

- Assignment of URIs to metadata terms of MARC 21 - Action plan
<http://dublincore.org/usage/meetings/2003/06/MARC-URIs.pdf>
- Excerpts from the RDF schema declaring the MARC Relator terms
<http://dublincore.org/usage/meetings/2003/06/Relator-excerpts-rdfxml.html>

Action Item 16: Rebecca and Diane to prepare stand-alone document describing how MARC relator terms can be used in DC metadata descriptions. Andy will review the draft for technical correctness. Diane to use this as the basis for adding text to "Using Dublin Core" describing how to use MARC relator terms.

TOPIC 09. AskDCMI (Stuart and Diane) - Saturday

Required viewing:

- <http://askdcmi.askvrd.org/>

Required reading:

- <http://dublincore.org/usage/meetings/2003/06/AskDCMI.html>
- http://askdcmi.askvrd.org/services/askdcmi/expert_tips.asp

Action Item 17: Diane to seek to enrol other people as AskDCMI experts. Other UB members are encouraged to do the same.

TOPIC 10. Proposal from DCMI Type Working Group for "Image" (Diane)

Dealt with under Topic 1.

TOPIC 11. Creative Commons proposal (Andrew and Stu, as guest) -- Sunday

Stu has been working with Eric Miller and with Andy on a proposal for handling references to Creative Commons licenses with dc:rights. Prior to the meeting he will circulate a text. The UB will not be in a position to vote on this, as it will not have been out for comment for the required four weeks, but we should be able to provide some useful feedback, especially in light of the Abstract Model discussion.

Andrew, who will shepherd this proposal at the next meeting, will report on Creative Commons' own attempts to encode basic rights information, as well as efforts underway in the METS context.

TOPIC 12. Usage Board recruitment (Stu)

Action Item 18: Diane to draft document setting out relationship and reciprocal expectations between Affiliates and UB.

OTHER BUSINESS

Other Business: Case in DCMI namespace and term declarations

Action Item 19: Andy to shepherd the case change proposal through UB for eventual issue as a DCMI recommendation.

Next Meeting of UB: proposed that UKOLN host next meeting in Bath in March 2004.

Action Item 20: Andy to check that this will be acceptable to UKOLN and advise Tom.

Action Item 21: Tom to negotiate date for meeting with UB members. Agreed that meeting be held either Friday + Saturday or Sunday + Monday.

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Title:

DCMI Usage Board (UB) Administrative Processes

Creator: Diane I. Hillmann, dih1@cornell.edu
Stuart A. Sutton, sasutton@u.washington.edu**Date Issued:** 2003-02-07**Identifier:** <http://dublincore.org/usage/documents/2003/02/07/process/>**Replaces:** <http://dublincore.org/usage/documents/2002/10/04/process/>**Is Replaced By:** Not Applicable**Latest version:** <http://www.dublincore.org/usage/documents/process/>**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.

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Part 1–Usage Board: Overview, Meetings, Documentation

1. Usage Board Membership [\[top\]](#)

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

2. Meetings [\[top\]](#)

2.1.Scheduling

- 2.1.1.**Meetings should be 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 meetings should be supported as much as possible by DCMI.

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 [\[top\]](#)

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 [\[top\]](#)

4.1. Sources of proposals

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 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 support	Demonstration and documentation that the proposed new term has substantial support of Working Group members. 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
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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. Pre-announcement process

4.5.1.1. Proposal is received by DCMI Managing Director or UB Chair.

4.5.1.2. Proposal is given preliminary review for completeness by DCMI Managing Director and UB Chair.

4.5.1.3. 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.

4.5.1.4. If incomplete or revisions needed, proposal is returned to originator, with request for revision or additional information.

4.5.2. Announcements

4.5.2.1. Announcements of comment period for proposals to be discussed by the UB shall be made on the DC-General list and other relevant lists.

4.5.2.2. Announcements of proposals shall be made by the DCMI Managing Director.

4.5.2.3. Announcements will include:

4.5.2.3.1. Links to relevant information to be considered with the proposal

4.5.2.3.2. Relevant deadlines for comments

4.5.2.3.3. Addresses for comment submission

4.5.2.3.4. Information about UB meeting at which the proposal will be

discussed, including place, time, and how to request an invitation to participate

4.5.2.3.5. Name and contact information for the assigned shepherd

4.5.3. 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	

4.5.4. Shepherds

4.5.4.1. Each proposal shall be assigned a shepherd by the UB chair from among the UB membership.

4.5.4.2. Shepherds should have knowledge of the proposal issues or be connected to the WG originating the proposal.

4.5.4.3. Responsibilities

4.5.4.3.1. Monitor discussion on relevant lists (shepherds should be members of the relevant DC WG list during the time of consideration of a proposal).

4.5.4.3.2. 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).

4.5.4.3.3. Serve as liaison to the relevant WG or community during the time the proposal is under discussion and after a decision has been made.

4.5.4.3.4. Verify registration information for the DCMI Web Team.

4.5.4.3.5. Prepare draft of UB official decision on the proposal for review and approval by the UB.

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 no more than one UB member objects to a proposal.

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 [\[top\]](#)

5.1.Submissions of new encoding schemes will be received on the UB list via a Web form

5.2.UB members will "claim" responsibility to shepherd submissions based on:

5.2.1.Their knowledge of a particular scheme

5.2.2.Their knowledge of the language used in the scheme

5.2.3.Their interest or knowledge of a particular subject or topical area covered by the scheme

5.2.4.The time they have available for such tasks

5.3. Submissions unclaimed after one week will be assigned to a UB member by the chair.

5.4.The UB chair will not shepherd individual submissions, but will keep track of submissions and ensure that all are resolved in some manner.

5.5.The shepherd will be responsible for verifying the submitted information:

5.5.1.Name of the scheme

5.5.2.Availability and maintenance status

5.5.3.Appropriateness of the maintenance agency

5.5.4.Uniqueness and appropriateness of the proposed token**5.5.5.**Possible use with elements not specified in the proposal

5.6.If necessary, the shepherd will initiate contact with the maintenance agency in the case of questions or concerns about the status of the scheme, the proposed token, or to clarify the submission.

5.7.The shepherd will edit the submission and complete the registration process by submitting the information to the DCMI Web Team.

5.8.The DCMI Web Team will report to the UB list when registration has been completed.

5.9.The UB chair will prepare a monthly report of all new schemes.

5.10.Communication Responsibility Table*Communication Responsibility Table*

What	Where	Who	Comment
Scheme submission	UB List	Shepherd Submission Tool	
Scheme registration	UB List	Sheperd Submission Tool	Shepherd may announce to relevant list
Digest of scheme registrations	DC-General	UB-Chair	To be automated by DCMI Web Team

6. Proposals for Registration of Application Profiles [\[top\]](#)**6.1.**Sources of proposals**6.1.1.**DCMI working groups**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**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 as models for their layout, appearance, and content. Aside from the required term and element set identifiers, there are no particular constraints on the types of documentation -- local definitions, comments, constraints, or technical notes -- that may be associated with a term.

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'.

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.