CARLCore Metadata Application Profile

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French translation by: To be determined.

Document Scope: This document details the *CARLCore Metadata Application Profile*, a practical set of guidelines for improving the consistency of the metadata aggregated in the CARL/ABRC Harvester (http://carl-abrc-oai.lib.sfu.ca/).

Document History

Version	Author
1.0 (2008/09/12)	Maintainers

Contact: The maintainers of this application profile are interested in receiving feedback from users. Please email **repos-ap@sfu.ca** with any suggestions or questions.

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1 INTRODUCTION

The majority of Canadian research output is published outside of Canada and is distributed in diverse platforms and formats. To improve access to this content, an increasing number of Canadian institutions are making their researchers' work available through institutional repositories. In 2003, the Canadian Association of Research Libraries (CARL) launched the CARL Institutional Repository Project to assist its members in implementing repositories locally.

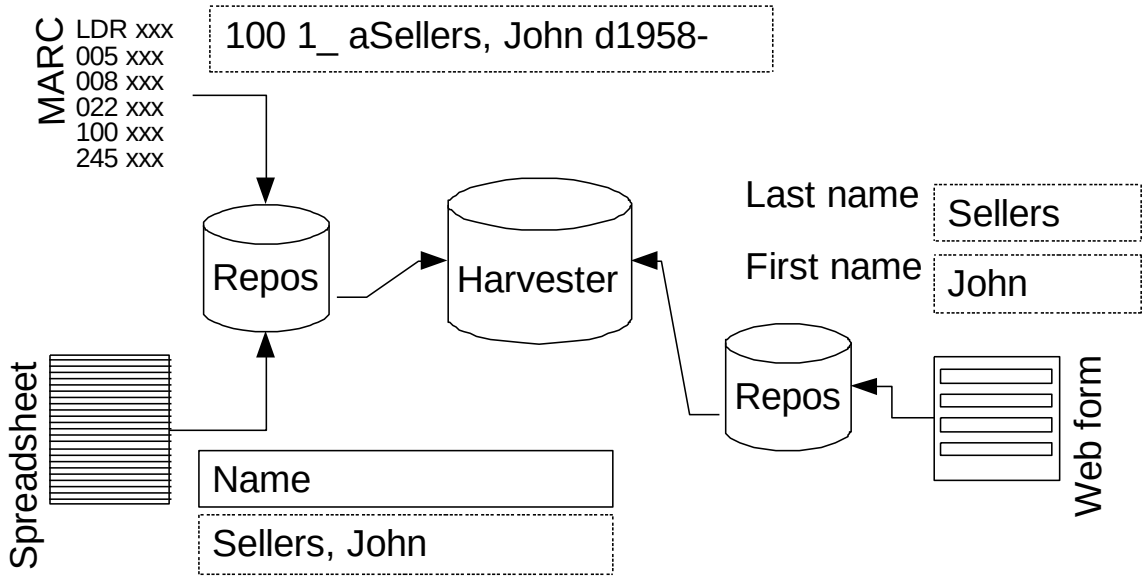
An important part of this project is the pan-Canadian harvester, which was launched in 2004 (http://carl-abrc-oai.lib.sfu.ca/) and is managed by Simon Fraser University. The CARL Harvester collects metadata from institutional and other types of repositories at a number of Canadian universities and research organizations, and is intended to assist end users in seamlessly searching all of the repositories at once, using one common point of access.

The Harvester has provided a valuable means of gathering information about the nature of the metadata being assigned to digital objects in participating Canadian repositories. In order to be harvested by the CARL Harvester, a repository must be compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) and expose metadata in unqualified Dublin Core. A 2006 analysis based upon the activity of the CARL Harvester during its first year of operation, found that the harvested metadata from the repositories was both inconsistent and incomplete (Mark Jordan, "The CARL metadata harvester and search service." *Library Hi Tech* 24.2 [2006], 197-210). This analysis reflects the experiences of others in the international community. "While the OAI Protocol is robust; it is not in itself a magic bullet and cannot compensate for poor quality metadata." (Cole, Timothy, et.al. *Implementation of a Scholarly Information Portal Using the Open Archives Initiative Protocol for Metadata Harvesting*. Final Report to the Andrew W. Mellon Foundation. July 25, 2003, http://oai.grainger.uiuc.edu/FinalReport/Mellon_FinalReport.doc).

In order to improve the functionality of the harvested metadata from Canadian repositories, a working group was formed to develop a metadata application profile. An application profile is a "set of metadata elements, policies, and guidelines defined for a particular application or implementation." (DCMI Glossary, 2005) The *CARLCore Metadata Application Profile* aims to create a practical and flexible set of guidelines that will improve the quality of metadata being harvested from Canadian repositories and ultimately enable the development of value-added services.

2 PURPOSE of the CARLCore METADATA APPLICATION PROFILE

The *CARLCore Metadata Application Profile* is provided as a guide to the maintainers of Canadian institutional and electronic theses repositories who contribute metadata to the CARL Harvester. The intent is to develop a low barrier profile for applying Dublin Core metadata in Canadian repositories. Most institutional and disciplinary repositories have very limited resources to spend on metadata creation and many employ author-deposit methods, and are populated by a variety of methods, including the submission tools bundled with repository management software, or bulk loading from sources such as full catalogue records in MARC format or simple spreadsheets:



The purpose of this application profile is to document guidelines for creation of the metadata that is mapped into Dublin Core records by the repository software and exposed for harvesting and aggregation with similar metadata from other repositories for searching in the CARL Harvester. The application profile is aimed at metadata experts and non-experts alike, and can be applied to any repository that claims to support the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) with a minimum of effort.

Implementation of the *CARLCore Metadata Application Profile* is voluntary, but adherence to the guidelines presented in the *CARLCore Metadata Application Profile* will increase the likelihood that the material described in local repositories will be found by users of the CARL Harvester search service (http://carl-abrc-oai.lib.sfu.ca/). The profile stipulates which elements are required, recommended, and optional, and clarifies best practices for the use of specific elements. Guidelines for implementing CARLCore are provided in Appendix 5.1.

The Profile is divided in two parts: Level 1, described in this document, limits metadata elements to those that are part of the unqualified Dublin Core Metadata Element Set

(http://dublincore.org/documents/dcmi-terms/); and Level 2, (forthcoming) will introduce qualifiers to allow the aggregation of richer metadata than that provided by unqualified Dublin Core, such as faceted hierarchies representing academic disciplines or structured subject vocabularies.

Commonalities across multiple application profiles in the domain of institutional and related repositories will facilitate interoperability and ultimately increased utility for end users searching for material from outside their national boundaries. As such, CARLCore draws on several existing profiles with similar goals and jurisdictional focus, including the ARROW Discovery Service (http://www.arrow.edu.au/docs/files/harvesting.pdf) harvesting guide from Australia and Using simple Dublin Core to describe eprints (http://www.rdn.ac.uk/projects/eprints-uk/docs/simpledc-guidelines/) from the UK.

3 GENERAL INFORMATION AND RECOMMENDATIONS

This section provides general information about CARLCore Level 1 and recommendations that apply to all elements in the application profile.

3.1 Summary of CARLCore Level 1 Metadata elements

The elements included in CARLCore Level 1 are identical to the elements in the standard Dublin Core Metadata Element Set. The elements and their corresponding definitions as used in the Application Profile are as follows:

Element	CARLCore Definition
Contributor	An entity responsible for making contributions to the content of the resource.
Coverage	The geographic and chronological scope of the content of the resource.
Creator	An entity primarily responsible for making the content of the resource.
Date	A milestone associated with an event in the life cycle of the resource. Date on which the work was first published or deposited in the IR (for unpublished works).
Description	An account of the content of the resource.
Format	The physical or digital manifestation used to determine the software, hardware or other equipment needed to display or operate the resource.
Identifier	An unambiguous reference to the resource at the originating repository.
Language	The language of the intellectual content of the resource.
Publisher	An entity responsible for making the resource available.

Relation	A reference to a related resource.
Rights	Information about the rights held in and over the resource.
Source	A reference to a resource from which the present resource is derived.
Subject	The topic of the content of the resource.
Title	A name given to the resource.
Type	The genre of the work.

3.2 Entry components

Entries for each element in CARLCore Level 1 are described using the following components:

Component	Description
Element	The element name. CARLCore Level 1 element names are identical to Dublin Core element names. Element names as used in this application profile are case insensitive (i.e., “Creator” is identical to “creator”).
Definition	The CARLCore definition of the element.
Obligation	Indicates whether the element is required be present in a record. In this application profile the obligation can be one of mandatory, recommended, or optional.
Recommended Encoding	Identifies any encoding schemes to guide the formatting of the data element.
Element Guidelines	Detailed recommended guidelines for use of the element within the context of the CARLCore Metadata Application Profile.
Examples	Detailed examples of how the element should be used as described in the Element Guidelines. Presented in a numbered list. May be followed by brief explanations in square brackets.

3.3 Rules for all metadata elements

1. Repositories contributing metadata to the CARL Harvester will ensure that all elements are exposed in compliance with the Open Archives Initiative for Metadata Harvesting (OAI-PMH) version 2.0.
2. Where an element is repeatable, there is no limit to how many instances of that element can occur in a single resource description. Repeatable values in the same field should be separated by semicolons.

3. There is no limit to the length of an element.

3.4 Principles

1. CARLCore Level 1 parallels the Dublin Core Metadata Element Set in order to supply the richest and most consistent metadata possible within the minimum requirements of the Open Archives Initiative Protocol for Metadata Harvesting.
2. CARLCore Level 1 applies to metadata exposed for harvesting and inclusion in the CARL Harvester search service, not necessarily to the creation of metadata for use within the participating repositories. However, repository maintainers are free (and encouraged) to adopt CARLCore Level 1 and subsequent CARLCore application profiles as guides to the creation of their local metadata.
3. Implementation of CARLCore Level 1 is optional but strongly encouraged within the designated user community (Canadian repositories of scholarly information).
4. Elements described in CARLCore Level 1 apply to the digital version of the work, not its original source version if one exists.

4 CARLCORE LEVEL 1 ELEMENTS

This section provides detail that applies to individual elements in CARLCore Level 1.

4.1 Contributor

<table>
<tr><td colspan="2">Element: Contributor</td></tr>
<tr><td colspan="2">Definition: An entity responsible for making contributions to the content of the resource.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
May be a corporate or personal entity with component parts separated by punctuation.
Personal name component parts will be in the order of: family name, given names and/or initials, honorific, with commas between each component part.
Corporate body component parts will be in the</td><td>Examples:
Smith, Charles L.
General Council of the United Church of Canada
British Columbia. Co-ordinated Law Enforcement Unit</td></tr>
</table>

order of the organizational hierarchy, from largest to smallest component, with periods between each component part. • Component parts should be formatted according to established cataloguing rules whenever possible.	

4.2 Coverage

<table>
<tr><td colspan="2">Element: Coverage</td></tr>
<tr><td colspan="2">Definition: The geographic and chronological scope of the content of the resource.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:

• Repeatable.
• Free text.
• Recommended that geographic names are selected from a controlled vocabulary or gazetteer.
• Chronological coverage can be expressed as a date range, single date or temporal.</td><td>Examples:

1. Aishihik Lake, Yukon Territory, Canada
2. May 7-15, 2004
3. 20th century</td></tr>
</table>

4.3 Creator

<table>
<tr><td colspan="2">Element: Creator</td></tr>
<tr><td colspan="2">Definition: An entity primarily responsible for making the content of the resource.</td></tr>
<tr><td colspan="2">Obligation: Recommended</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
May be a corporate or personal entity with component parts separated by punctuation.
Personal name component parts will be in the order of: family name, given names and/or initials, honorific, with commas between each component part.
Corporate body component parts will be in the order of the organizational hierarchy, from largest to smallest component, with periods between each component part.
Component parts should be formatted according to established cataloguing rules whenever possible.</td><td>Examples:
Curiel, David G., Dr.
Institute for Research in Construction (Canada)
McGill University. Centre for Northern Studies and Research</td></tr>
</table>

4.4 Date

<table>
<tr><td colspan="2">Element: Date</td></tr>
<tr><td colspan="2">Definition: A milestone associated with an event in the life cycle of the resource. Date on which the work was first published or deposited in the IR (for unpublished works).</td></tr>
<tr><td colspan="2">Obligation: Mandatory</td></tr>
<tr><td colspan="2">Recommended Encoding: YYYY-MM-DD according to the W3C-DTF</td></tr>
<tr><td>Element Guidelines:

• Multiples not desired but expected.

• Qualifiers not desired but expected.</td><td>Examples:

1. 2004-10-28T19:47:03Z [Typical machine-generated date/timestamp in YYYY-MM-DDTHH:MM:SSZ format]

2. 2006-04 [Issue date assigned by contributor]</td></tr>
</table>

4.5 Description

<table>
<tr><td colspan="2">Element: Description</td></tr>
<tr><td colspan="2">Definition: An account of the content of the resource.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:

• Repeatable.

• Free text.

• May include an abstract, table of contents, summary description of the contents, or a URI which points to a description.</td><td>Examples:

1. Illustrates the use of a Webcam. [Image]

2. This thesis describes the high velocity vibration of the proton ... [Text]

3. Saturn. Galiano. Mayne. North and South Pender. [Text]</td></tr>
</table>

4.6 Format

<table>
<tr><td colspan="2">Element: Format</td></tr>
<tr><td colspan="2">Definition: The physical or digital manifestation used to determine the software, hardware or other equipment needed to display or operate the resource.</td></tr>
<tr><td colspan="2">Obligation: Mandatory</td></tr>
<tr><td colspan="2">Recommended Encoding: MIME Media Type and dimension (e.g. the size of the document's file in bytes and duration) using the Internet Assigned Numbers Authority MIME Media Types vocabulary available at http://www.iana.org/assignments/media-types/.</td></tr>
<tr><td>Element Guidelines:
Repeatable.
Where possible, use values from the Internet Assigned Numbers Authority Internet Media Types list at http://www.iana.org/assignments/media-types/.</td><td>Examples:
text/html
application/pdf
image/png</td></tr>
</table>

4.7 Identifier

<table>
<tr><td colspan="2">Element: Identifier</td></tr>
<tr><td colspan="2">Definition: An unambiguous reference to the resource at the originating repository.</td></tr>
<tr><td colspan="2">Obligation: Mandatory</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
Should be a URL pointing to the metadata record at the originating repository, not the document itself.</td><td>Examples:
http://hdl.handle.net/1892/2296
http://ir.lib.sfu.ca/handle/1892/2296
http://library2.usask.ca/theses/available/etd-10212004-000015/</td></tr>
</table>

4.8 Language

<table>
<tr><td colspan="2">Element: Language</td></tr>
<tr><td colspan="2">Definition: The language of the intellectual content of the resource.</td></tr>
<tr><td colspan="2">Obligation: Mandatory</td></tr>
<tr><td colspan="2">Recommended Encoding: RFC 3066 (http://www.ietf.org/rfc/rfc3066.txt)
ISO639 (http://www.loc.gov/standards/iso639-2/)</td></tr>
<tr><td>Element Guidelines:

• Repeatable.

• DCMI "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.”</td><td>Examples:

1. "en" or "eng" [for English]

2. "akk" [for Akkadian]

3. "en-GB" [for English used in the United Kingdom]</td></tr>
</table>

4.9 Publisher

<table>
<tr><td colspan="2">Element: Publisher</td></tr>
<tr><td colspan="2">Definition: An entity responsible for making the resource available.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
May be the entity responsible for publishing the original content (print, microform) that has been subsequently digitized or the entity responsible for the digitization.
May be a corporate or personal entity with component parts separated by punctuation.
Corporate body component parts should be in the order of the organizational hierarchy, from largest to smallest component, with periods between each component part.</td><td>Examples:
Innovative Institutional Communications
University of Victoria. Library. Special Collections
University of Victoria. School of Earth and Ocean Sciences</td></tr>
</table>

4.10 Relation

<table>
<tr><td colspan="2">Element: Relation</td></tr>
<tr><td colspan="2">Definition: A reference to a related resource.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:

• Repeatable.

• Free text.

• Where possible, include a string or number conforming to a formal identification system such as:

International Standard Serial Number (ISSN)
International Standard Book Number (ISBN)
Digital Object Identifier (DOI)
Serial Item and Contribution Identifier (SICI)</td><td>Examples:

1. CM: an electronic reviewing journal of Canadian materials for young people (ISSN 1201-9364)

2. Technical report no. 97-04-TR

3. doi:10.4038/36077082</td></tr>
</table>

4.11 Rights

<table>
<tr><td colspan="2">Element: Rights</td></tr>
<tr><td colspan="2">Definition: Information about the rights held in and over the resource.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
Free text.</td><td>Examples:
Copyright remains with the author.
I hereby certify that, if appropriate, I have obtained and attached hereto a written permission statement from the owner(s) of each third party copyrighted matter to be included in my thesis, dissertation, or project report, allowing distribution as specified below. I certify that the version I submitted is the same as that approved by my advisory committee. I hereby grant to University of Saskatchewan or its agents the non-exclusive license to archive and make accessible, under the conditions specified below, my thesis, dissertation, or project report in whole or in part in all forms of media, now or hereafter known. I retain all other ownership rights to the copyright of the thesis, dissertation or project report. I also retain the right to use in future works (such as articles or books) all or part of this thesis, dissertation, or project report.
Copyright: 2002, Martin, George. All rights reserved.</td></tr>
</table>

4.12 Source

<table>
<tr><td colspan="2">Element: Source</td></tr>
<tr><td colspan="2">Definition: A reference to a resource from which the present resource is derived.</td></tr>
<tr><td colspan="2">Obligation: Optional</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
Can be either a citation to the original from which the digital version is derived or used according to the DCMI: “Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.”</td><td>Examples:
American Anthropologist 1965 (1 Oct) 26 (4): 399-410. [Citation to published article]
ISBN: 184334176X [For a book chapter]</td></tr>
</table>

4.13 Subject

<table>
<tr><td colspan="2">Element: Subject</td></tr>
<tr><td colspan="2">Definition: The topic of the content of the resource.</td></tr>
<tr><td colspan="2">Obligation: Recommended</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
Controlled vocabularies may be used as a source of subject headings or keywords.
Choose the most significant and unique words as keywords.
If using a corporate body or personal name as a keyword, follow same formatting as described in the "creator" element.
Free text keywords should be separated using commas between concepts and should remain unqualified by scheme.</td><td>Examples:
New business enterprises--Awards; Business planning—Awards [LCSH]
medical apparatus, UNESCO [uncontrolled keywords]</td></tr>
</table>

4.14 Title

<table>
<tr><td colspan="2">Element: Title</td></tr>
<tr><td colspan="2">Definition: A name given to the resource.</td></tr>
<tr><td colspan="2">Obligation: Mandatory</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:
Repeatable.
The title is taken from the resource itself. DC Comment: Typically, a Title will be a name by which the resource is formally known. (Source: http://dublincore.org/documents/dcmi-terms/).
It should reflect the content of the resource as briefly as possible.
If no official title exists, one can be created by summarizing the content of the resource using key words from the text.
Each title must be unique.
Titles may be free text.
Naming conventions could be used to standardize titles within an organization.</td><td>Examples:
Dublin Core Metadata Terms
Journal of AAPOS: the official publication of the American Association for Pediatric Ophthalmology and Strabismus</td></tr>
</table>

4.15 Type

<table>
<tr><td colspan="2">Element: Type</td></tr>
<tr><td colspan="2">Definition: The genre of the work.</td></tr>
<tr><td colspan="2">Obligation: Mandatory</td></tr>
<tr><td colspan="2">Recommended Encoding: None</td></tr>
<tr><td>Element Guidelines:

• Repeatable.

• Document formats (image, video, etc.) should be coded in the "Format" element.

• Local values for the 'type' element are mapped on harvest to a controlled list as described in section 5.2, “Implementation Guidelines”.</td><td>Examples:

PhD thesis [maps to Thèse de doctorat / Doctoral dissertation]

Eprint [maps to Pré-publication / Preprint]

Referred article [maps to Article]

Working paper [maps to Rapport / Report]</td></tr>
</table>

5 APPENDICES

5.1 The CARL Metadata Application Profile and the CARL Harvester

Some of the elements described in this Application Profile are used by the CARL Harvester and Service (http://carl-abrc-oai.lib.sfu.ca/) for purposes other than simple text that is searchable by end users. Specifically value of the “identifier” element is converted to a hypertext link and used as a pointer back to the originating repository, and the values of the “type,” “format,” and “language” elements are represented in the search interface as select lists that can be used to limit queries. In these three cases, the unique values across all occurrences of each element in the aggregated metadata are presented to the user as options for limiting. “Date” values can also be used to limit queries, but unique values for all “date” elements are not presented to the user; rather, a standard set of date selectors (year, month, and day for both start and end date ranges) are used to limit queries. All other elements are searched as free text.

Since the search interface on the aggregated metadata uses element values in these ways, it is important that contributing repositories use standardized vocabularies (or data formats) to the greatest extent possible. The CARL Harvester is capable of performing some data normalization on harvested metadata. For example, the “type” values that each repository exposes to the Harvester are mapped into a standardized vocabulary using equivalences defined by each repository administrator. However, this type of normalization is only possible within elements that have a limited set of values at each repository, or within elements whose values follow predictable patterns (such as date formats). For many elements, such as those containing personal or corporate names, titles, and subjects, consistency at the source of the metadata is more effective than post-harvest normalization. Implementation of the recommendations contained in the *CARLCore Metadata Application Profile* at contributing repositories will increase the overall consistency of the aggregated metadata where it cannot be normalized programmatically, thereby maximizing the likelihood that end users of the CARL Harvester will be able to find resources.

5.2 Implementation Guidelines

Apart from contacting CARL/ABRC about registering a repository with the Harvester, each repository administrator needs to maintain a single XML file. As described in section 5.1, above, the CARL/ABRC Harvester uses a special feature of the PKP Metadata Harvester software to provide the most useful search interface possible given variations in the metadata from participating repositories. This feature is called a “type map”, which uses an XML file to map the values in each repository’s Dublin Core “type” element to a standard set that is presented to the end user. A simplified version of this XML file is as follows:

```
<mappings>
<mapping from=" " to="Actes de conférence / Conference Proceedings" />
<mapping from=" " to="Article" />
<mapping from=" " to="Audio" />
<mapping from=" " to="Carte, plan / Map, plan" />
<mapping from=" " to="Chapitre de livre / Book chapter" />
<mapping from=" " to="Communication, présentation / Paper, Presentation" />
<mapping from=" " to="Ensemble de données / Dataset" />
<mapping from=" " to="Image" />
```

<mapping from=" " to="Livre / Book" />
<mapping from=" " to="Logiciel / Software" />
<mapping from=" " to="Mémoire de maîtrise / Master's thesis" />
<mapping from=" " to="Objet d'apprentissage / Learning Object" />
<mapping from=" " to="Partition musicale / Musical Score" />
<mapping from=" " to="Pré-publication / Preprint" />
<mapping from=" " to="Rapport / Report" />
<mapping from=" " to="Thèse / Thesis" />
<mapping from=" " to="Thèse de doctorat / Doctoral dissertation" />
<mapping from=" " to="Vidéo / Video" />
<mapping from=" " to="Autre / Other" />
</mappings>

The values in the “to” attribute are the ones that will be presented to the end user, regardless of which repository or group of repositories is being searched in the Harvester. Values used by each repository are placed in the “from” attribute (these values are case sensitive and should have no spaces before or after them). For example, the SFU Institutional Repository uses the values “Article”, “Book”, “Book chapter”, “Dataset”, “Other”, “Plan or blueprint”, “Presentation”, “Presentation (Non-refereed)”, “Presentation (Refereed)”, “Technical Report”, “Thesis”, “Working Paper”, “text”, and “thesis” in all “type” elements exposed to OAI harvesters. SFU’s type map would look like this:

<mappings>
<mapping from="Article " to="Article" />
<mapping from="Book" to="Livre / Book" />
<mapping from="Book chapter" to="Chapitre de livre / Book chapter" />
<mapping from="Dataset" to="Ensemble de données / Dataset" />
<mapping from="Other" to="Autre / Other" />
<mapping from="Plan or blueprint " to="Carte, plan / Map, plan" />
<mapping from="Presentation" to="Communication, présentation / Paper, Presentation" />
<mapping from="Presentation (Non-refereed)" to="Communication, présentation / Paper, Presentation" />
<mapping from="Presentation (Refereed)" to="Communication, présentation / Paper, Presentation" />
<mapping from="Technical Report" to="Rapport / Report" />
<mapping from="Thesis" to="Thèse / Thesis" />
<mapping from="thesis" to="Thèse / Thesis" />
<mapping from="Working Paper" to="Rapport / Report" />
</mappings>

Each repository has its own type map, which must be submitted to the CARL/ABRC Harvester maintainer upon registration. A simple Perl script is available for listing a repository’s “type” values.

5.3 Sample metadata records

The following records are provided as examples of the metadata for digital objects that is consistent with CARLCore Level 1 recommendations.

5.3.1 Sample metadata – journal article

Element	Value

Creator	Djamba, Yanyi K.
Date	2004-06-18
Description	This article reviews the underlying assumption of most family planning programmes in Africa. The results show that the hypothesis that African men oppose the use of contraceptive methods is erroneous. Rather, current data reveal that men want to learn more about birth control. Also, most men and women believe that husbands are the primary decision-makers of reproductive and sexual lives. A new perspective for men's involvement programmes is then provided as a route to low fertility in Africa.
Format	application/pdf
Identifier	http://hdl.handle.net/1807/1347
Language	en
Publisher	Union for African Population Studies (UAPS)
Rights	Copyright 1995 – Union for African Population Studies
Source	African Population Studies (10): November 1995
Source	ISSN: 0850-5780
Subject	Public Health
Title	Family Planning in Africa: Old Belief and New Perspective
Type	article

5.3.2 Sample metadata – thesis

Element	**Value**
Creator	Busch, Kelly
Date	2001
Description	This thesis on water and social activism in Canada is a journey into the realm of shared social understanding. Water is too precious to all forms of life to simply permit commodification for the benefit of a few at the expense of the many. The Sun Belt case adjudicated under the North American Free Trade Agreement (NAFTA) when compared with what prevailed under previous Canadian national law reveals severe limits to state sovereignty. A high measure of support has already been manifest around concerns and considerations which pertain to water and the potential for the growth of social activism with reference to water may well be unprecedented in Canada. There are fundamental inequalities found within the Sun Belt case. Current international trade policy coupled with private banking practices does not value the principles of sustainability, equality and justice because it is committed to the commodification of the “commons”. This thesis

	uses a variety of sources to oppose the present discourses followed by governments according to the doctrines found in the study of classical economics within a capitalist context.
Format	application/pdf
Identifier	http://hdl.handle.net/1828/34
Language	en
Subject	water
Subject	social activism
Subject	NAFTA
Subject	Sovereignty
Subject	commons
Subject	commodification
Title	Water and social activism in Canada
Type	thesis

5.3.3 Sample metadata – presentation

Element	**Value**
Creator	Champagne, Michel
Date	2006-09-19
Description	L'Université de Montréal célèbre en 2006 le centenaire du don de l'une de ses plus importantes collections de manuscrits et d'imprimés canadiens : la Collection Louis-François George Baby. Comptant plus de 20 000 pièces manuscrites et environ 3 400 livres rares, gravures et estampes, cette collection constitue une source inépuisable pour les chercheurs s'intéressant à de nombreux aspects de l'histoire canadienne. Cette session permettra de mieux faire connaître la Collection Baby de même que sa diffusion sur Internet aux historiens et historiennes participant à la rencontre de l'ACFAS. Nous brosserons un tableau des différents sujets couverts par la Collection et mettant en valeur les thématiques abordées dans la collection de même que le type d'instruments de recherche mis à la disposition des chercheurs.
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Subject	Louis-François Georges Baby
Title	Autour de la Collection Baby. Présentation de la collection
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