



# Government of Canada Metadata Implementation Guide for Web Resources

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**Prepared by the Training Sub-group of the Government On-Line  
Metadata Working Group**

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This document is also available in alternate formats on request.

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## Acknowledgements

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## Additions and changes since the last edition

Adjustments to text and examples are based on new developments and on feedback from users of earlier editions.

- ▶ The target audience for the Guide has been refocussed to metadata developers who possess a basic knowledge of metadata.
- ▶ Examples, organization names, and URLs have been updated.
- ▶ Guidance for the `dc.creator` element has been expanded to include personal names and non-federal organizations.
- ▶ Government of Canada interpretations have been added to the element definitions for `dc.subject`, `dc.format` and `dc.type`.
- ▶ Guidance for the `dc.coverage` element has been revised.
- ▶ Two new sections (based, in part, on subsections in previous editions) have been added:
  - “Controlled vocabularies” (section 2.3); and
  - “Keywords” (section 4.6).

**Note:** This edition of the Guide reflects a version of Dublin Core syntax that is being updated. Future editions will reflect these updates as they become more fully documented.

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## Chapter 1: Introduction

The *Government of Canada Metadata Implementation Guide for Web Resources* is intended for metadata developers responsible for creating and maintaining the metadata mandated by the *Common Look and Feel for the Internet* ([http://www.tbs-sct.gc.ca/clf-nsi/index\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/index_e.asp)), a Treasury Board standard implemented government-wide in 2000. Readers of this Guide should have a basic knowledge of metadata.

The metadata requirements, found in Standard 6.3 of the *Common Look and Feel for the Internet* ([http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03_e.asp)), make it mandatory for federal Web sites to include descriptive metadata about the content of Web resources. A Web resource is defined as a single Web page, a document (consisting of multiple Web pages), a digitized image, a sound file, or an animation, such as a movie. The official deadline for implementing Standard 6.3 for external Web sites was December 31, 2002. The metadata requirements remain in effect.

This edition of the *Government of Canada Metadata Implementation Guide for Web Resources* was prepared by the Training Sub-group of the Government On-Line Working Group ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/ts-sf/intro\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/ts-sf/intro_e.asp)). Comments on the Guide and suggestions for improvements are welcome and should be directed to the Chair of the Training Sub-group, care of [im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca).

Chapter 1, the introduction to this edition, explains what metadata is and why it is important. It sets out the metadata elements that department or agency Web sites are expected to include in order to comply with Common Look and Feel (CLF) Standard 6.3.

Chapters 2, 3, and 4 offer practical assistance for creating metadata content for federal government Web resources in accordance with Treasury Board metadata standards. These chapters explain the tasks to be performed, demonstrate how the required information should be created, and direct users to other resources. They also provide HTML examples of how and where to insert required source code into a Web document.

The appendices to this Guide include a list of Web resources on metadata policies and practices and an example of metadata source code in HTML.

The Guide will be updated with new or revised information as often as is necessary. For information on the status of updates, contact the Chair of the Training Sub-group, care of [im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca).

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## 1.1 The Government of Canada Metadata Framework

The Government of Canada Metadata Framework

([http://www.tbs-sct.gc.ca/im-gi/meta/frame-cadre\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/frame-cadre_e.asp)) establishes a strategy for the development of metadata within federal departments or agencies.

Treasury Board has adopted the Dublin Core metadata standard. This standard was created and is maintained by the Dublin Core Metadata Initiative (<http://dublincore.org>). The Framework shows the relationship between the Dublin Core standard and other extensions for specific subject domains or purposes (e.g. records management, portal content management, and domain-specific metadata, such as e-learning).

The five mandatory CLF metadata elements (Title, Creator, Date, Language, and Subject) constitute the base of the Framework. These elements are expressed using the Dublin Core grammar and must be used by departments and agencies to describe their Web resources.

The Framework is under revision and will be included in its new form in the upcoming Metadata Strategy.

## 1.2 What is metadata?

Metadata is structured information about the characteristics of a physical or digital object. Metadata serves the same function as a label. Just like other labels, metadata provides information about an object.

For example, an unlabelled, sealed tin can could contain motor oil, baked beans or cat food. The only way to ascertain its contents is to open it. A label, however, would describe what is inside the can and would allow for an informed decision about whether to buy or open it.



A typical label for a tin can of baked beans might consist of the following information:

title:	Baked Beans
creator:	ABC Co
ingredients:	baked beans, distilled water, salt, ascorbic acid
date of manufacture:	2006-12-30

creator



description

Nutrition Facts	
Per 125 mL (87 g)	
Amount	% Daily Value
Calories 80	
Fat 0.5 g	1 %
Saturated 0 g	0 %
+ Trans 0 g	0 %
Cholesterol 0 mg	
Sodium 0 mg	0 %
Carbohydrate 18 g	6 %
Fibre 2 g	8 %
Sugars 2 g	
Protein 3 g	
Vitamin A 2 %	Vitamin C 10 %
Calcium 0 %	Iron 2 %

4.7 cm x 6.5 cm = 30.6 cm<sup>2</sup>

The label could also contain additional information, from allergy alerts to a toll-free number for consumers. Some jurisdictions, including Canada, require food processors to include a certain amount of mandatory information on their product labels or packaging. In addition, Canadian regulations require that the information be expressed in both of Canada's official languages.

The Treasury Board's metadata standards are analogous to Canadian product labelling regulations: they require that federal government Web pages contain certain mandatory information (i.e. the metadata), expressed in a certain way (i.e. a standard).

Such information facilitates resource discovery in the same way that supermarket signage facilitates locating products or that library catalogues provide paths to required information. Metadata is used by search engines to improve matching between user queries and descriptions of resources indexed by the search engine.

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### 1.3 Why does it matter?

Good metadata helps people find the information they are looking for. Searching through unstructured text (i.e. performing a full-text search) or using uncontrolled terminology (i.e. keywords) may yield tens of thousands of results, the majority of which are usually irrelevant to the searcher. The structure of metadata records allows searching for terms in discrete elements (e.g. title, subject). Search results are therefore fewer and more focussed.

Quality control and consistency are important. If a Web resource lacks essential metadata, or if the metadata is inaccurate or incorrect, search results will be negatively affected.

To facilitate the management of Web resources and accurate information retrieval, every Web resource should have a unique set of metadata describing the content of the resource. No two Web resources on a particular Web site should contain exactly the same metadata.

For federal departments and agencies, metadata serves three separate but interrelated functions simultaneously:

- ▶ *Direct resource discovery by Canadians—a primary goal of the Government On-Line Initiative.*  
Web crawlers and indexes in departments and agencies, at the Canada Site, and at other government information aggregation services, are being configured to use metadata to create searchable central indexes of department and agency Web resources.
- ▶ *Sharing and exchanging information between federal organizations and their partners.*  
Metadata is increasingly being used by clusters and gateways to identify appropriate content.
- ▶ *The internal information management needs of federal organizations.*  
Metadata is used for managing records, documents, and content for Web sites as well as for information created and used by programs and services.

### 1.4 Why a common standard?

Adopting a common standard ensures that metadata on federal Web sites will be co-ordinated and client-focussed. In the context of the Government of Canada, a single standard makes it possible for Canadian citizens and federal employees to search the gc.ca domain for Web information without needing to know which department or agency produced it.

A common standard also makes it possible for systems to communicate the existence and characteristics of electronic information resources to other electronic applications or search tools. Moreover, a standard permits efficient migration of information from one application or search system to another. The ability of systems to communicate with other applications, search tools, systems, etc., is known as *interoperability*.

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## 1.5 Mandatory Dublin Core elements

In CLF 6.3 ([http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03_e.asp)), Treasury Board mandates the use of five elements for description of federal Web resources. These five mandatory elements are Title, Creator, Date, Language and Subject.

In TBITS 39.1 ([http://www.tbs-sct.gc.ca/its-nit/standards/tbits39/crit391\\_e.asp](http://www.tbs-sct.gc.ca/its-nit/standards/tbits39/crit391_e.asp)), Treasury Board adopted the international Dublin Core metadata standard for use across the federal government. Of the 15 Dublin Core metadata elements, 5 are required by CLF.

The five mandatory elements are intended only as a starting point for federal organizations using metadata as part of their information management strategy. Expanding the metadata element set beyond the mandatory five to include such elements as Coverage, Description, and Type is encouraged, as is the use of local elements, provided that evolving guidance from the Treasury Board of Canada, Secretariat (the Secretariat) is followed. Canadians will benefit from improved resource discovery, and Web site managers will benefit from the improved information management capabilities provided by use of additional metadata elements in resource descriptions.

The five mandatory elements are briefly described below. Detailed guidance for each element is found in Chapter 3, “Elements Required under the Common Look and Feel” and in *Common Look and Feel Metadata Standard Definitions and HTML Examples* ([http://www.tbs-sct.gc.ca/im-gi/meta/clf-nsi-meta/clf-nsi-meta\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/clf-nsi-meta/clf-nsi-meta_e.asp)).

### *Title*

Title specifies the title given to a resource.

### *Creator*

Creator specifies the name of the organization(s) or person(s) responsible for the intellectual content of the resource.

### *Date*

Date specifies one of two dates. The first, Date Created, identifies the date the resource was first posted on the Web. This element is mandatory. The second, Date Modified, identifies the date a substantially revised version of the resource was posted on the Web. This element is mandatory only when applicable.

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### *Language*

Language indicates the language of the resource.

### *Subject*

Subject contains one or more words or phrases (descriptors) selected from a registered controlled vocabulary to describe the subject of the intellectual content of the resource.

## 1.6 Optional Dublin Core elements

Five optional Dublin Core metadata elements (Audience, Coverage, Description, Format, Type) are briefly described below. Detailed guidance on their use in federal Web sites is found in Chapter 4, “Optional Elements.”

Other optional Dublin Core elements exist. For guidance on the use of these elements, contact the Secretariat’s Information Management Strategies Division ([im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca)).

### *Audience*

Audience indicates for whom the resource is intended or useful. Values must be chosen from a registered controlled vocabulary.

### *Coverage*

Coverage indicates the extent or scope of the content of the resource. For federal Web sites, Coverage has been defined only in relation to geographic location. Values must be chosen from a registered controlled vocabulary.

### *Description*

Description gives a natural language account of the content of the resource.

### *Format*

Format describes the physical or digital manifestation of a Web resource. Values must be chosen from a registered controlled vocabulary.

### *Type*

Type indicates the nature or genre of the content of the resource. Values must be chosen from a registered controlled vocabulary.

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## 1.7 HTML keywords Metatag

The HTML `keywords` metatag contains additional words and phrases to serve as access points for search engines. Further guidance can be found in Chapter 4, “Optional Elements.”

## 1.8 Keeping abreast of Government of Canada metadata policies and developments

For the most up-to-date information, visit the Information Management Resource Centre (<http://www.tbs-sct.gc.ca/im-gi>) Web site and click the link to the metadata page. The Information Management Resource Centre is a single-window source to information on metadata developments relevant to federal government Web sites.

See also Appendix A, “Web Resources on Government of Canada Metadata Policies and Practices.”

## 1.9 Further assistance for metadata managers

Metadata managers are invited to seek further information from their organization’s representative on the Government On-Line Metadata Working Group ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/intro\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/intro_e.asp)).

If your department or agency is not represented on the Working Group, contact the Secretariat’s Information Management Strategies Division for advice on becoming represented ([im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca)).

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## Chapter 2: Guidance for Metadata Developers

This chapter contains an introduction to metadata elements, provides guidance applicable to all elements, and explains the crucial role of controlled vocabularies in populating metadata elements.

### 2.1 General guidance

Although Standard 6.3 of the CLF ([http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03_e.asp)) mandates the use of five metadata elements, a given department or agency may require a larger element set. This set may include optional Dublin Core elements, elements from other metadata standards, or locally defined elements.

Tools and procedures used to populate these elements will be determined by policies established by the department or agency and by the information system(s) used.

Although metadata information may be input using an electronic form, metadata embedded on an HTML page will look like this:

```
<link rel="schema.dc" href="http://purl.org/dc/elements/1.1/">
<meta name="dc.title" content="xyz">
<meta name="dc.creator" content="xyz">
<meta name="dc.date.created" content="xyz">
<meta name="dc.date.modified" content="xyz">
<meta name="dc.language" scheme="ISO639-2" content="xyz">
<meta name="dc.subject" scheme="gcore" content="xyz">
```

where *xyz* represents the metadata value.

The preceding template would be the same for all Web pages, whether pages are in English only, in French only, in both official languages, or in any combination of English, French and any other language.

When a Web page contains text in more than one language, elements are repeated to show multiple instances of the element, one for each language. It is unnecessary to repeat the Date element because the content is a numeric value.

For some elements (Subject, Audience, Coverage, Format and Type), values must be selected from registered controlled vocabularies, which are available on the *Canadian Government-*

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*maintained Controlled Vocabularies and Thesauri* Web page on the Library and Archives Canada Web site (<http://www.collectionscanada.ca/8/4/r4-281-e.html>).

### **2.1.1 Expressing metadata elements**

This edition of the Guide provides only HTML examples. While XML and XHTML are used in federal departments and agencies, there is currently no official Government of Canada guidance on the use of these mark-up languages. Future editions will have more guidance on their use.

Departments and agencies seeking information on XML and XHTML should consult their organization's representative on the Government On-Line Metadata Working Group ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/intro\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/intro_e.asp)). More information can also be found in the following documents:

*Guidelines for implementing Dublin Core in XML*  
(<http://dublincore.org/documents/dc-xml-guidelines>); and

*Expressing Dublin Core in HTML/XHTML meta and link elements*  
(<http://dublincore.org/documents/dcq-html/>).

## **2.2 Guidance applicable to all metadata elements**

### **2.2.1 HTML syntax**

In HTML, all parts of the metadata information (except the values in the `content=` attribute) must appear exactly as shown in the examples in this Guide, including upper and lower case, angle brackets and quotation marks. Although the syntax appears to be in English, it is actually machine-readable code that must not be translated. Only text appearing in the `content=` attribute should be recorded in English, French, or another language, depending on the language of the resource.

### **2.2.2 Use of the reference statement**

The following statement is necessary for machine validation of the Dublin Core schema and must appear once in the head of every Web resource:

```
<link rel="schema.dc" href="http://purl.org/dc/elements/1.1/">
```

When using the Audience element, it may be necessary to use a second `link`. Please see section 4.1 for guidance.

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For further information on the technical aspects of expressing Dublin Core, consult *Expressing Dublin Core in HTML/XHTML meta and link elements* (<http://dublincore.org/documents/dcq-html/>).

### **2.2.3 Use of upper and lower case**

Dublin Core expressed in HTML (e.g. `meta name="dc.title"`) is always in lower case.

Values may be alphanumeric characters (e.g. upper and lower case, numbers and symbols). Values selected from registered controlled vocabularies, however, must be transcribed exactly as they appear in the controlled vocabulary being used, including case and punctuation.

### **2.2.4 Updating metadata as resource content changes**

The metadata for a resource is a description of the content of the resource. Whenever resource content changes, metadata developers must ensure that metadata still describes the content accurately.

## **2.3 Controlled vocabularies**

This section is based on the *Guide to the Development and Maintenance of Controlled Vocabularies in the Government of Canada*.

### **2.3.1 What is a controlled vocabulary?**

The Controlled Vocabulary Sub-group of the Government On-Line (GOL) Metadata Working Group ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/cvsg-sgvc/intro\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/cvsg-sgvc/intro_e.asp)) has adopted the following definition of a controlled vocabulary:

A list of standardized terminology, words or phrases, used for indexing or content analysis and information retrieval usually in a defined information domain. It is characterized by consistent format, syntax and may include synonyms and cross-references. In a controlled vocabulary, one of a set of possible terms representing a concept can be used as the representative term for that concept. Consequently, all resources about, or pertinent to, that particular concept, within a body of information resources, can be indexed using this representative term.

Controlled vocabularies can apply to many different concepts, including the subjects, formats, types or intended audiences of resources.

The above definition recognizes that controlled vocabularies are used by at least two distinct types of users: first, by indexers, content analysts or metadata creators as analytical or descriptive



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tools; and second, by information users or information managers for retrieving or organizing information.

### **2.3.2 Why are controlled vocabularies useful?**

Controlled vocabularies help metadata developers describe information resources in a consistent manner. This consistency fosters two outcomes. First, it allows searchers of those resources to find information efficiently. Second, it allows information managers to separate unlike information resources and to collocate or bring together similar information resources.

The use of a controlled subject vocabulary can increase consistency of search results and is a more efficient and precise way of searching than full text because it retrieves all resources—and only those resources—that are about the subject being searched and that have been indexed with the appropriate controlled vocabulary terms.

By contrast, full text searching, although valuable for some purposes, is imprecise and often results in the retrieval of large amounts of unrelated information. Creators of information resources do not always use the same terminology to identify concepts, topics or subjects that searchers of resources in those areas use. For example, users looking for reports on the subject of heart attacks might perform a search using the term *heart attacks*. A full text search of a large body of health-related Web resources could yield any resources containing that phrase, regardless of the context in which that term is used. The term might have been used in passing in an article about cancer or even as an interjection on a totally unrelated topic. The search would not, however, retrieve a study on acute myocardial infarctions if that study did not also contain the words *heart attacks* in the text.

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### 2.3.3 Controlled vocabularies for metadata elements in federal Web sites

The following table shows Dublin Core metadata elements that require the use of registered controlled vocabularies.

Element Name	Obligation	Sample Controlled Vocabularies
Subject	Mandatory	<i>Government of Canada Core Subject Thesaurus</i> ( <a href="http://www.thesaurus.gc.ca/">http://www.thesaurus.gc.ca/</a> )
Audience	Optional	<i>Government of Canada Audience Scheme</i> ( <a href="http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/aud-aud/docs/2003/schemfinal/schemfinal_e.asp">http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/aud-aud/docs/2003/schemfinal/schemfinal_e.asp</a> )
Coverage	Optional	Canadian Geographical Names Database ( <a href="http://geonames.nrcan.gc.ca/index_e.php">http://geonames.nrcan.gc.ca/index_e.php</a> )
Format	Optional	<i>Government of Canada Format Scheme</i> ( <a href="http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/schem_e.asp">http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/schem_e.asp</a> )
Type	Optional	<i>Government of Canada Type Scheme</i> ( <a href="http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-tyt/docs/2003/schem/schem_e.asp">http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-tyt/docs/2003/schem/schem_e.asp</a> )

A controlled vocabulary that has been registered with Library and Archives Canada or the Dublin Core Metadata Initiative that has a label for use as a value for `scheme=` is referred to as a *scheme*.

An organization may wish to adapt an existing scheme or develop a local scheme to achieve a more precise description for local indexing and retrieval needs. For further information on these processes, consult the *Guide to the Development and Maintenance of Controlled Vocabularies in the Government of Canada*. Any locally developed schemes must be registered with Library and Archives Canada. Contact the Secretariat's Information Management Strategies Division at [im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca) for assistance in developing local schemes.

### 2.3.4 Language equivalents

For resources that are available in both official languages, terms from registered English controlled vocabulary must be assigned to the English version, and French to the French version.

For each term in one official language there must be an equivalent term (or terms) in the other. This is straightforward when selecting terms from vocabulary lists with English and French equivalents, but it is more challenging when selecting from one list in one official language and from a different list for the other. Until formal guidance is available, contact the Secretariat's Information Management Strategies Division at [im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca) for advice.

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### 2.3.5 Government-maintained controlled vocabularies and thesauri

Library and Archives Canada maintains a registry of authorized schemes at <http://www.collectionscanada.ca/8/4/r4-281-e.html>. Authorized vocabularies are available for the Audience, Coverage, Format, Subject, and Type elements.

Instructions on how to register a controlled vocabulary or thesaurus with Library and Archives Canada may be found at <http://www.collectionscanada.ca/8/4/r4-293-e.html>.

Values from a scheme uniquely identified for use with one element may not be used as the content for another element. For example, it would be incorrect to use a term from the *Government of Canada Core Subject Thesaurus* (the default scheme for use in `dc.subject`) in the Coverage element. Only values from schemes registered for use in Coverage should be used as content for that element.

Because schemes are linked to their elements, misuse negatively affects the reliability of search results and defeats the purpose of using metadata.

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## Chapter 3: Elements Required under the Common Look and Feel

All element definitions are cited from *DCMI Metadata Terms* (<http://www.dublincore.org/documents/dcmi-terms>).

### 3.1 Title

#### 3.1.1 Definition

A name given to the resource.

#### 3.1.2 Usage

The Title element is expressed as follows:

```
<meta name="dc.title" content="abc">
```

where *abc* is the title of the resource.

#### 3.1.3 Guidance

The title is taken from the authoritative source. For Web resources, this is the resource itself.

A title should convey the content of the resource as succinctly as possible.

For bilingual Web pages (i.e. *welcome* or *splash* pages), two separate instances of `dc.title` must be used: one containing the English title and one containing the French.

#### 3.1.4 Values

To ensure that users can properly identify and understand titles as displayed in the Web resource as well as in search results, each page on an individual Web site must have a unique title. The content of the `dc.title` value and the HTML `title` element should be identical, except in title metadata for bilingual welcome pages (see section 3.1.6.4 for examples).

Authors or Web resource creators should refer to the guidance on assigning document titles found in the “Microcontent” section of the *Government of Canada Internet Guide* ([http://www.tbs-sct.gc.ca/ig-gi/i-mo/bs-cs/bs-cs2\\_e.asp](http://www.tbs-sct.gc.ca/ig-gi/i-mo/bs-cs/bs-cs2_e.asp) - b11).

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To determine the content for `dc.title`, metadata developers should follow these steps:

1. Determine the HTML `title` element content and use this same content to populate `dc.title`. The HTML `title` element can be found in the coded version of a page by selecting View > Source in Internet Explorer or View > Page Source in Netscape. (Internet Explorer and Netscape are the most commonly used browsers in federal departments and agencies.)
2. Depending on departmental or agency policy, enhance `dc.title` content if the HTML `title` is not sufficiently informative. For example, an HTML `title` such as “About Us” or “Home Page” may be enhanced to provide context: “About Us—Name of Department” or “Home Page—Name of Department.”
3. Devise a title for `dc.title` if a Web page does not have an HTML `title`. When devising titles, identify prominent wording found at the top of a Web page, either in text or in a title graphic, and use this wording as content for `dc.title`. Again, depending on departmental or agency policy, prominent wording may be enhanced to provide context.

### **3.1.5 Other considerations**

*HTML 4.01 Specifications* ([www.w3.org/TR/html401](http://www.w3.org/TR/html401)) stipulates that every HTML document have an HTML `title` element.

Departments and agencies should develop processes to ensure that no two pages have identical titles.

### **Examples**

The following examples are for illustrative purposes only and do not necessarily represent actual Government of Canada Web pages.

### 3.1.6.1 HTML title as source for the title of the Web page

<http://www.space.gc.ca/asc/eng/default.asp>



The content of the HTML title—“CSA – Home Page of Canadian Space Agency” (found in the coloured bar at the top of the browser screen)—may be used to populate `dc.title`.

Expressed in HTML as follows:

```
<meta name="dc.title" content="CSA – Home Page of Canadian Space Agency">
```

### 3.1.6.2 HTML title contains insufficient information

[http://www.tbs-sct.gc.ca/audience/cdn\\_e.asp](http://www.tbs-sct.gc.ca/audience/cdn_e.asp)



The HTML title “Canadians” provides little context. Depending on departmental or agency policy, it may be necessary to enhancement the HTML title using the graphical title. The content of `dc.title` may be enhanced with the organization name: “Treasury Board of Canada Secretariat – Information for Canadians”.

Expressed in HTML as follows:

```
<meta name="dc.title" content="Treasury Board of Canada Secretariat – Information for Canadians">
```

### 3.1.6.3 No HTML title available

<http://www.vsi-isbc.ca/eng/policy/background.cfm>



The source code for this page does not contain an HTML title. The content for `dc.title` should be taken from prominent wording found at the top of a Web page, either in text or in a title graphic.

Depending on departmental or agency policy, the content of `dc.title` could be “Voluntary Sector Initiative – Policy Development”.

Expressed in HTML as follows:

```
<meta name="dc.title" content="Voluntary Sector Initiative – Policy Development">
```



### 3.1.6.4 Bilingual “Welcome” page

<http://www.lac-bac.gc.ca/>



The HTML title indicates that the title of the page is “Welcome to the LIBRARY AND ARCHIVES CANADA website / Bienvenue au site Web BIBLIOTHÈQUE ET ARCHIVES CANADA”. The content of `dc.title` is

English title: Welcome to the LIBRARY AND ARCHIVES CANADA website

French title: Bienvenue au site Web BIBLIOTHÈQUE ET ARCHIVES CANADA

Expressed in HTML as follows:

```
<meta name="dc.title" content="Welcome to the LIBRARY AND ARCHIVES  
CANADA website">  
<meta name="dc.title" content="Bienvenue au site Web BIBLIOTHÈQUE ET  
ARCHIVES CANADA">
```

---

## 3.2 Creator

### 3.2.1 Definition

An entity primarily responsible for making the content of the resource.

#### 3.2.1.1 Government of Canada constraint

At a minimum, the Creator element must include the department or agency responsible for the content of the information resource. The Creator element may be repeated for names of non-federal organizations that also have responsibility for content of federal resources.

### 3.2.2 Usage

The Creator element is expressed as follows:

```
<meta name="dc.creator" content="abc">
```

where *abc* is the name of the responsible department, agency or non-federal organization.

### 3.2.3 Guidance

#### 3.2.3.1 General guidance

Every responsible organization must be specified. The Creator element may be repeated when more than one department or agency is responsible for the information resource and when one or more non-federal organizations (e.g. provincial, territorial or municipal government departments, private sector businesses, not-for-profit groups) are responsible for the resource.

Levels in an organizational hierarchy should be separated with a comma (,), a period (.), or a semicolon (;). Punctuation should be used consistently according to guidelines established by the department or agency.

##### 3.2.3.1.1 Abbreviations, acronyms and initialisms

Abbreviations for organizational components should not be used (e.g. “Atomic Energy of Canada Limited” should be used, not “AECL”).

##### 3.2.3.1.2 Changes of name

For newly posted content, the current form of creator name for a department or agency must be used. However, the creator name assigned to static and unchanging resources, such as annual reports and other legacy documents, should not be changed even when the name of the authoring organization has changed. Such resources were created by the organization under its name at the time of publication; metadata should not be updated to reflect subsequent name changes.

---

### 3.2.3.1.3 Organizational hierarchies

Local metadata policy should include guidance on the level of organizational detail to be used when expressing `dc.creator`.

While use of the department or agency name alone is acceptable practice and is usually sufficient, the addition of organizational levels could be helpful or necessary. For example, lower levels in the organizational hierarchy should be included when a major organization is part of a larger department or agency and would not appear in `dc.creator` at all if the parent organization alone were used.

For example, the Geological Survey of Canada is part of Natural Resources Canada and would not appear in `dc.creator` if “Government of Canada, Natural Resources Canada” alone were used. The following hierarchical structure includes the Geological Survey of Canada and shows hierarchical relationship to the parent organization.

```
<meta name="dc.creator" content="Government of Canada, Natural Resources Canada, Earth Sciences Sector, Geological Survey of Canada">
```

### 3.2.3.2 Federal departments or agencies

All department or agency names must be preceded by “Government of Canada” followed by the department or agency name (e.g. Government of Canada, Natural Resources Canada).

For English-only Web resources, use the following:

```
<meta name="dc.creator" content="Government of Canada, ddd">
```

For French-only Web resources, use the following:

```
<meta name="dc.creator" content="Gouvernement du Canada, ddd">
```

where *ddd* represents either the name of the department or agency or the full bureaucratic hierarchy of the responsible organizational unit.

On bilingual pages, repeat the element for a department or agency in English and in French.

---

Examples of federal Web pages are provided in section 3.2.4.

### 3.2.3.2.1 Authorized sources of terminology

In order to ensure successful retrieval of Web resources, it is important that the form of name of the originating department or agency be identical in all metadata records. Authorized sources for department or agency names must be used.

For department or agency names, the current form of name can be found in the Treasury Board of Canada Secretariat *Titles of Federal Organizations* ([http://www.tbs-sct.gc.ca/pubs\\_pol/sipubs/tb\\_fip/titlesoffedorg\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/sipubs/tb_fip/titlesoffedorg_e.asp)).

This information is also available in French as *Titres des organismes fédéraux* ([http://www.tbs-sct.gc.ca/pubs\\_pol/sipubs/tb\\_fip/titlesoffedorg\\_f.asp](http://www.tbs-sct.gc.ca/pubs_pol/sipubs/tb_fip/titlesoffedorg_f.asp)).

The form of name of Government of Canada organizational divisions and subdivisions can be found in the Government Electronic Directory Services (<http://direct.srv.gc.ca/cgi-bin/direct500/BE>).

### 3.2.3.3 Provincial, territorial and municipal government departments

An authorized source of terminology for provincial, territorial and municipal government departments has not yet been designated. To formulate names, specify the full bureaucratic hierarchy of the organizational unit that created and maintains the information resource. Begin with “Government of ‘name of province or territory’” followed by the department or ministry name, the next major organizational division and any minor organizational division(s). At a minimum, use the name of the province or territory and the name of the next largest organizational unit, usually the department or ministry.

Examples:

```
<meta name="dc.creator" content="Government of New Brunswick; Training and Employment Development">
```

```
<meta name="dc.creator" content="Government of Yukon; Department of Highways and Public Works">
```

---

```
<meta name="dc.creator" content="Gouvernement du Québec, Ministère de  
l'Industrie et du Commerce">
```

For municipalities, use the form of name given on the home page to name the jurisdiction (such as the city, town, or municipality) followed by the jurisdictional name with the name of the province enclosed in parentheses. End with the name of the unit responsible for the content.

Example:

```
<meta name="dc.creator" content="Municipality of Orillia (Ontario);  
Department of Traffic">
```

#### **3.2.3.4 Non-government organizations**

Non-government organizations responsible for the creation of an information resource may include associations, banks, unions, private sector businesses, and not-for-profit groups.

An authorized source of terminology for non-government organizations has not yet been designated. To formulate names, specify a hierarchy, starting with the largest unit, if this information is provided and obvious on the resource.

Example:

```
<meta name="dc.creator" content="Standards Council of Canada; Advisory  
Committee on Trade">
```

#### **3.2.3.5 Personal names**

An authorized source of terminology for individuals personally responsible for the authorship of an information resource has not yet been designated. To express a personal name, begin with the surname, followed by a comma, a space, and then add the first part of the name (e.g. initials, first and middle names) as they appear on the information resource.

---

Example:

```
<meta name="dc.creator" content="Roy-Martin, Marie P.">
```

### **3.2.4 Government of Canada examples**

The following examples are for illustrative purposes only and do not necessarily represent actual Government of Canada Web pages.

### 3.2.4.1 For a resource in English

[http://www.nrcan-rncan.gc.ca/inter/index\\_e.html](http://www.nrcan-rncan.gc.ca/inter/index_e.html)



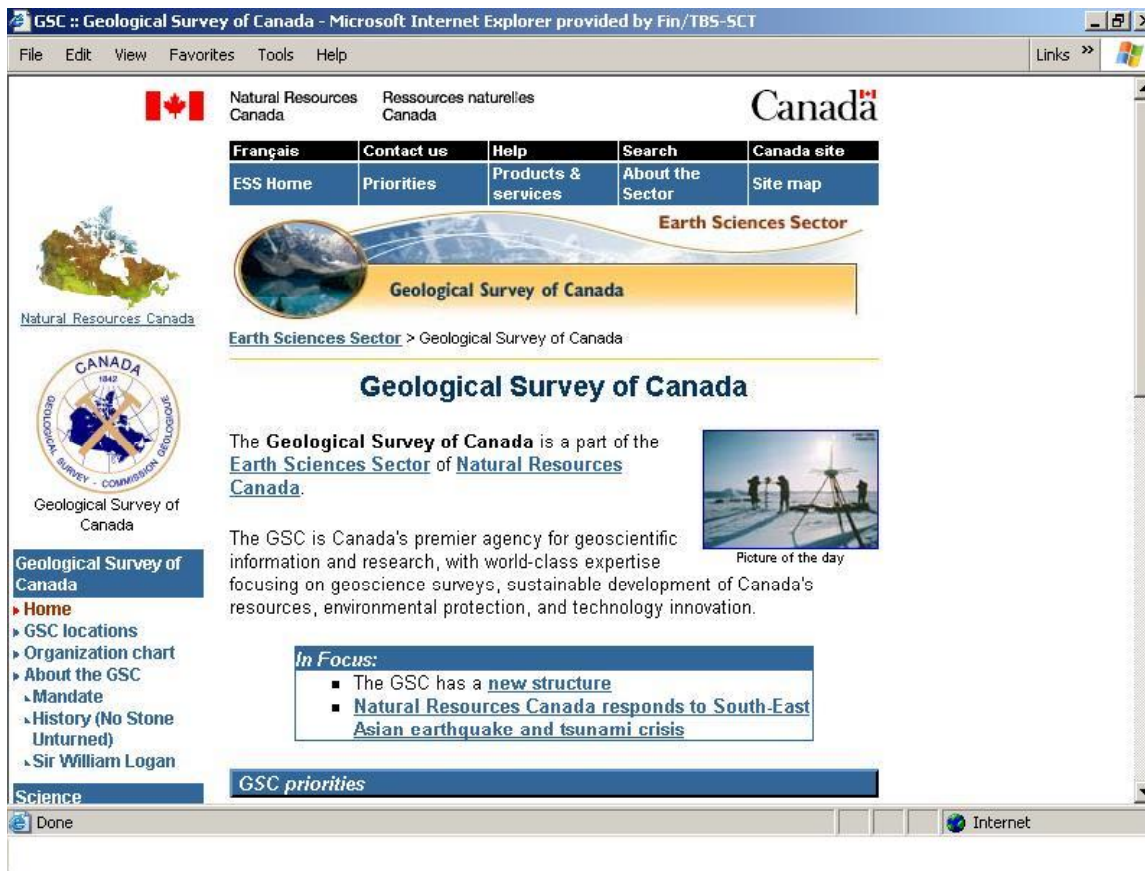
The responsible entity is Natural Resources Canada.

The content of `dc.creator` is “Government of Canada, Natural Resources Canada”.

Expressed in HTML as follows:

```
<meta name="dc.creator" content="Government of Canada, Natural Resources Canada">
```

[http://gsc.nrcan.gc.ca/index\\_e.php](http://gsc.nrcan.gc.ca/index_e.php)



The responsible entity is the Geological Survey of Canada, a subdivision of Natural Resources Canada.

The content of `dc.creator` is “Government of Canada, Natural Resources Canada, Earth Sciences Sector, Geological Survey of Canada”. This text represents the full bureaucratic hierarchy of the unit responsible for the page. The full hierarchy is applied because some Web users may believe the Geological Survey of Canada to be an independent entity.

Expressed in HTML as follows:

```
<meta name="dc.creator" content="Government of Canada, Natural Resources Canada, Earth Sciences Sector, Geological Survey of Canada">
```



### 3.2.4.2 For a resource in French

[http://www.nrcan.gc.ca/inter/index\\_f.html](http://www.nrcan.gc.ca/inter/index_f.html)



The responsible entity is Ressources naturelles Canada.

The content of `dc.creator` is "Gouvernement du Canada, Ressources naturelles Canada".

Expressed in HTML as follows:

```
<meta name="dc.creator" content="Gouvernement du Canada, Ressources naturelles Canada">
```

[http://gsc.nrcan.gc.ca/index\\_f.php](http://gsc.nrcan.gc.ca/index_f.php)



The responsible entity is the Commission géologique du Canada, a subdivision of Ressources naturelles Canada.

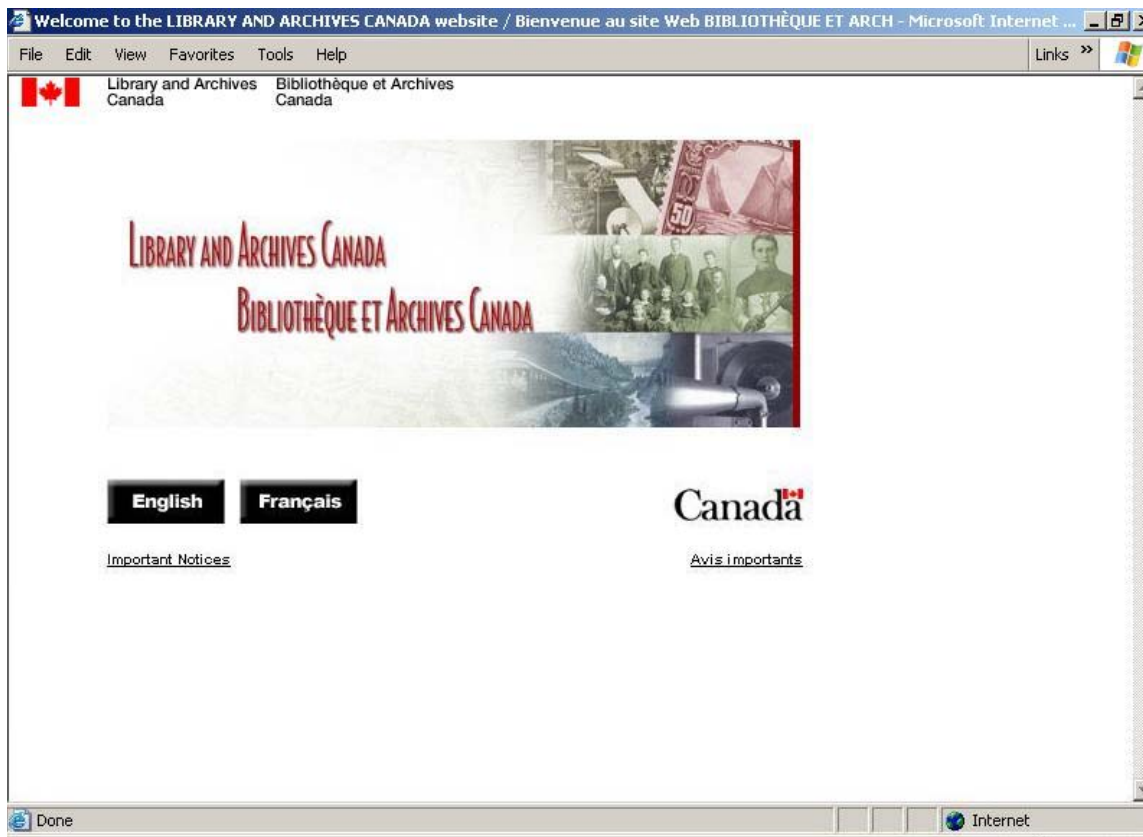
The content of `dc.creator` is “Gouvernement du Canada, Ressources naturelles Canada, Secteur des sciences de la Terre, Commission géologique du Canada”. This text represents the full bureaucratic hierarchy of the unit responsible for the page. The full hierarchy is applied because some Web users may believe the Commission géologique du Canada to be an independent entity.

Expressed in HTML as follows:

```
<meta name="dc.creator" content="Gouvernement du Canada, Ressources naturelles Canada, Secteur des sciences de la Terre, Commission géologique du Canada">
```

### 3.2.4.3 For a bilingual Web resource

<http://www.lac-bac.gc.ca>



The content of `dc.creator` is both “Library and Archives Canada” and “Bibliothèque et Archives Canada.” On bilingual pages, repeat the element for the creator name in English and French.

Expressed in HTML as follows:

```
<meta name="dc.creator" content="Government of Canada, Library and Archives Canada">
<meta name="dc.creator" content="Gouvernement du Canada, Bibliothèque et Archives Canada">
```

---

## 3.3 Date

### 3.3.1 Definition

A date associated with an event in the life cycle of the resource.

#### 3.3.1.1 Government of Canada constraint

Two Date elements are required for Web resources: Date Created and Date Modified. These elements refer to the date a resource is posted on the Web. They do not refer to the date(s) relating to the content of the resource (i.e. the date the content was created or the period during which the content is valid).

### 3.3.2 Usage

The date the resource was first posted on the Web is expressed using `dc.date.created`.

The most recent date a substantially revised version of the resource was reposted on the Web is expressed using `dc.date.modified`. This element is mandatory only when such a revision has been posted; otherwise, it is not used at all.

The `dc.date.created` element is expressed as follows:

```
<meta name="dc.date.created" content="abc">
```

where *abc* is the date the resource was first posted on the Web, in the form YYYY-MM-DD; `dc.date.modified` is expressed in the same way.

For federal Web sites, the World Wide Web Consortium is the authority for formatting the date value (see <http://www.w3.org/TR/NOTE-datetime>). A scheme reference is not required.

### 3.3.3 Guidance

The Date element is not used for dynamic Web resources (e.g. Web pages that are generated dynamically from a database).

For static Web resources, follow these steps:

- a) use `dc.date.created` to reflect the date the resource is first posted on the Web; and
- b) add `dc.date.modified` to reflect the date the resource is reposted on the Web after its intellectual content has been substantially changed.

---

These rules apply whether the Web resource is English, French or bilingual.

### 3.3.4 Values

The Date element is expressed as YYYY-MM-DD, where YYYY is the year, MM is the month of the year between 01 (January) and 12 (December), and DD is the day of the month between 01 and 31.

If only the year and month are known, enter “01” for the day, e.g. 2003-04-01.

If only the year is known, enter “01” for both the month and the day, e.g. 2003-01-01.

Since automated information retrieval systems retrieve on all eight digits of the international date, constructing dates in this manner will ensure the ability of systems to search and retrieve on either month and year or year only.

The `dc.date.created` value never changes.

### 3.3.5 Other considerations

`dc.date.modified` must be used in conjunction with `dc.date.created`. It cannot exist without `dc.date.created`.

The date used in the content of `dc.date.modified` cannot be earlier than or equal to the content for `dc.date.created`. If a resource has no value for `dc.date.modified`, this element should not appear in the metadata record.

The content value of `dc.date.created` and `dc.date.modified` cannot be left blank. If the date of original posting is not known, follow the department or agency’s procedures for assigning an appropriate value.

### 3.3.6 Examples

For a Web resource first posted on May 6, 2003, and last substantially modified on December 20, 2004, the Date elements should be as follows:

On the original posting date, the content of `dc.date.created` is the date of posting:

```
<meta name="dc.date.created" content="2003-05-06">
```

---

Any time after that date when punctuation or typographical errors are corrected and the resource is reposted, the `dc.date.created` value is not changed:

```
<meta name="dc.date.created" content="2003-05-06">
```

When the resource is reposted with intellectual content substantially changed, `dc.date.modified` is added to the metadata. `dc.date.modified` reflects the date of posting of the changed version; `dc.date.created` is not changed:

```
<meta name="dc.date.created" content="2003-05-06">  
<meta name="dc.date.modified" content="2004-12-20">
```

## 3.4 Language

### 3.4.1 Definition

A language of the intellectual content of the resource.

#### 3.4.1.1 Government of Canada constraint

The ISO 639-2 language encoding scheme must be used.

### 3.4.2 Usage

The Language element is expressed as follows:

```
<meta name="dc.language" scheme="ISO639-2" content="abc">
```

where *abc* is a language code and “ISO639-2” refers to the language encoding scheme mandated for use in the `gc.ca` domain.

### 3.4.3 Guidance

If the Web resource is in one language, enter the appropriate language code.

If the resource is in more than one language, repeat the Language element using the corresponding code for each language.

---

### 3.4.4 Values

The language codes are three-character lower-case alphabetic strings, usually based on the first three letters of the English form.

English	eng
French	fre

Codes for other languages may be found in *Codes for the Representation of Names of Languages* (<http://lcweb.loc.gov/standards/iso639-2/englangn.html>).

### 3.4.5 Examples

#### 3.4.5.1 English-only Web resource

```
<meta name="dc.language" scheme="ISO639-2" content="eng">
```

#### 3.4.5.2 French-only Web resource

```
<meta name="dc.language" scheme="ISO639-2" content="fre">
```

#### 3.4.5.3 Bilingual Web resource (e.g. both English and French content)

```
<meta name="dc.language" scheme="ISO639-2" content="eng">  
<meta name="dc.language" scheme="ISO639-2" content="fre">
```

#### 3.4.5.4 Multilingual Web page (e.g. English, French and German)

```
<meta name="dc.language" scheme="ISO639-2" content="eng">  
<meta name="dc.language" scheme="ISO639-2" content="fre">  
<meta name="dc.language" scheme="ISO639-2" content="ger">
```

---

## 3.5 Subject

### 3.5.1 Definition

The topic of the content of the resource.

#### 3.5.1.1 Government of Canada interpretation

Subject terms must be selected from controlled vocabularies or formal classification schemes registered with Library and Archives Canada or recognized by the Dublin Core Metadata Initiative. The scheme for each vocabulary employed must be identified in the metadata. (Source: *Common Look and Feel Metadata Standard Definitions and HTML Examples*, [http://www.tbs-sct.gc.ca/im-gi/meta/clf-nsi-meta/clf-nsi-meta\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/clf-nsi-meta/clf-nsi-meta_e.asp))

### 3.5.2 Usage

The Subject element is expressed as follows:

```
<meta name="dc.subject" scheme="abc" content="def">
```

where *abc* refers to the scheme label for a registered controlled vocabulary, and *def* refers to the value or values chosen from that vocabulary.

### 3.5.3 Guidance

#### 3.5.3.1 Considerations for selecting terms for `dc.subject`

Terms (words or phrases that describe what the resource is about) must be selected from registered controlled vocabularies (see section 3.5.1.1).

The title of the resource may not necessarily reflect the content of the resource. For example, the book *Men are from Mars, Women are from Venus* is about male-female communication, not extraterrestrial life.

User needs must also be considered. Metadata developers should ask themselves “If I were searching for information using this term, would I want to retrieve this particular resource?”

Subject terms should be as specific as possible, not too broad or too narrow. Use of a broad term, such as *dairy industry*, to describe a resource on a specific topic, such as *milk*, would mean that users searching for information on *milk* would not find the resource. Similarly, terms for individual dairy products should not be used for a resource focussing on the dairy industry as a whole, even if particular dairy products are mentioned in the resource.



---

Use as many terms as are required to describe the resource accurately.

### **3.5.3.2 Using multiple subjects**

Multiple subjects from the same scheme may be included in `dc.subject` element. Values should be separated by a semicolon (;). A semicolon is used as a separator instead of a comma because a controlled subject term may include a comma.

### **3.5.3.3 Using multiple vocabulary schemes**

Multiple subject vocabulary schemes may be used to supply terms for `dc.subject`. A separate `dc.subject` statement is required for each vocabulary. Only terms from controlled vocabularies for `dc.subject` can be used.

Each instance of `dc.subject` must include the scheme label assigned to a particular controlled vocabulary. The labels are part of the vocabulary descriptions in the registry of controlled vocabularies available at the Library and Archives Canada Web site (<http://www.collectionscanada.ca/8/4/r4-281-e.html>).

For example, terms from the *eHealth Thesaurus* must be identified with the scheme label *gcicth* and may not be used in an instance of `dc.subject` containing terms from the *Core Subject Thesaurus* and using the scheme label *gccore*.

## **3.5.4 Values**

### **3.5.4.1 Sources of controlled terminology for `dc.subject`**

#### **3.5.4.1.1 Government of Canada Core Subject Thesaurus**

According to TBITS 39.2, the default controlled vocabulary for use by federal departments and agencies is the *Government of Canada Core Subject Thesaurus (CST)* (<http://www.thesaurus.gc.ca>). Other authorized vocabularies may be used, provided that a separate `dc.subject` statement is used for each vocabulary set.

The CST does not include specialized terminology used in specific and limited disciplines. It may be necessary to select additional terms from one or more specialized controlled vocabularies that are registered with Library and Archives Canada. Vocabularies registered with the Dublin Core Metadata Initiative (<http://dublincore.org>) may also be used provided that equivalent terms in both official languages are available (see section 3.5.4.2).

Detailed guidance on the use of the CST is available at <http://www.thesaurus.gc.ca/>. For an introduction to controlled vocabularies and their characteristics, see section 2.3 of this Guide and the *Guide to the Development and Maintenance of Controlled Vocabularies in the Government of Canada*.

---

For more information on thesauri, consult the Thesauri and Controlled Vocabularies pages on the Library and Archives Canada Web site (<http://www.collectionscanada.ca/8/4/r4-280-e.html>), or contact the Metadata Coordinator, Library and Archives Canada ([meta\\_coord@lac-bac.gc.ca](mailto:meta_coord@lac-bac.gc.ca)).

#### **3.5.4.1.2 If the *Core Subject Thesaurus* is not deemed suitable**

##### **Recommended practice:**

1. If a department or agency uses one or more authorized vocabularies other than the CST, it is highly recommended that one or more CST terms be selected as content for a separate instance of `dc.subject`. Using terms from the CST, even if they are very general in nature, facilitates cross-searching of all federal resources at the Canada site ([http://www.canada.gc.ca/main\\_e.html](http://www.canada.gc.ca/main_e.html)).
2. If the CST meets the vocabulary needs of a department or agency most of the time, but useful terms are identified that are not listed there, contact the Thesaurus Manager (see [http://en.thesaurus.gc.ca/contact\\_e.html](http://en.thesaurus.gc.ca/contact_e.html)) to discuss how these terminological needs can be met.
3. If the CST, because of its general nature, is deemed unsuitable, consult the list of *Government of Canada-maintained controlled vocabularies* (<http://www.collectionscanada.ca/8/4/r4-281-e.html>) on the Library and Archives Canada Web site to see what other vocabularies are registered for use in the `gc.ca` domain. This list includes information about the vocabulary label names for use in the coding of `dc.subject` scheme attribute and provides links to the on-line versions of the vocabularies. See also Chapter 3 of the *Guide to the Development and Maintenance of Controlled Vocabularies in the Government of Canada* for criteria on evaluating controlled vocabularies for use with metadata.

If a controlled vocabulary other than the CST is used, the scheme label for that vocabulary must be present in that instance of `dc.subject`.

4. If none of the vocabularies registered in the `gc.ca` domain suits the terminological needs of a department or agency, consult the list of controlled vocabularies registered by the Dublin Core at <http://www.dublincore.org>.

Only vocabularies in the Library and Archives Canada or Dublin Core registries with equivalent terms in both official languages will be acceptable for use. *Equivalent terms* is used instead of *translations* because a concept in one language may not have an exact match in the other.

- 
5. If none of these existing vocabularies is suitable, developing a customized vocabulary for local use may be an option. Consult the *Guide to the Development and Maintenance of Controlled Vocabularies in the Government of Canada* for information on creating new controlled vocabularies.

The following approaches should be considered:

- ▶ Development of a bilingual thesaurus for the subject domain: Such a project will require help from an expert because a thesaurus is highly structured and built according to established international criteria and standards with relationships among terms clearly displayed and identified by standardized relationship indicators.
- ▶ Development of a customized controlled vocabulary: A controlled vocabulary is less rigorous than a thesaurus. However, any synonyms must be controlled (i.e. non-preferred terms must point to preferred terms), because this is the most basic form of terminology control.
- ▶ Development of a simple list of prescribed terms: This option is not only the least expensive but also the least useful. Without synonym control, the ability of end-users to find relevant content is compromised because they will not be guided from their choice of terms to those used in the vocabulary to describe resources.

Vocabularies developed in-house for use with `dc.subject` must be registered with Library and Archives Canada. For advice on registering a vocabulary, consult the Metadata Coordinator at Library and Archives Canada ([meta\\_coord@lac-bac.gc.ca](mailto:meta_coord@lac-bac.gc.ca)). See also section 2.3.5—Registration of Controlled Vocabulary Schemes.

The terms in specialized controlled vocabularies can be mapped to more general terms in the CST so that both specific terminology and more general CST terminology are part of the metadata. For example, an in-house vocabulary term such as *aquacultural biotechnology* could be mapped to *Biotechnology*, which is found in the CST. The metadata would contain two instances of `dc.subject`, one for the broad CST term, and one for the specific local vocabulary term.

#### **3.5.4.2 Language equivalents in the Subject element**

See section 2.3.4 for information on language equivalents for resources that are available in both official languages.

---

### 3.5.5 Other considerations

Describing subjects using controlled terminology presents significant challenges. The correct selection of terms from controlled vocabularies may not be in the skill set of those responsible for managing Web resources. It is principally a skill of professional librarians and indexers. The challenge of selecting terms increases when more than one controlled vocabulary is used.

Managers are urged either to provide appropriate subject analysis training for their metadata developers or to obtain assistance from their departmental libraries or information resource centres when populating this crucial field.

For more information, see the *Guide to the Development and Maintenance of Controlled Vocabularies in the Government of Canada*.

### 3.5.6 Examples

#### 3.5.6.1 English-only Web resource described using terms from the Core Subject Thesaurus

[http://www.nrcan-rncan.gc.ca/inter/index\\_e.html](http://www.nrcan-rncan.gc.ca/inter/index_e.html)

```
<meta name="dc.subject" scheme="gcore" content="Natural resources;
Climate; Forests; Minerals; Metals; Maps; Energy; Energy conservation;
Geology; Environmental management">
```

#### 3.5.6.2 French-only Web resource described using terms from the Core Subject Thesaurus

[http://www.nrcan-rncan.gc.ca/inter/index\\_f.html](http://www.nrcan-rncan.gc.ca/inter/index_f.html)

```
<meta name="dc.subject" scheme="gcore" content="Ressources naturelles;
Climat; Forêt; Minéral; Métal; Carte; Énergie; Conservation de l'énergie;
Géologie; Gestion de l'environnement">
```

---

### 3.5.6.3 Bilingual Web resource described using terms from the Core Subject Thesaurus

<http://www.nrcan-rncan.gc.ca/inter/index.html>

```
<meta name="dc.subject" scheme="gcore" content="Natural resources; Climate;
Forests; Minerals; Metals; Maps; Energy; Energy conservation; Geology">
<meta name="dc.subject" scheme="gcore" content="Ressources naturelles;
Climat; Forêt; Minéral; Métal; Carte; Énergie; Conservation de l'énergie;
Géologie">
```

### 3.5.6.4 Multiple vocabularies to describe a single Web resource

#### 3.5.6.4.1 English-only Web resource described using terms from both the Core Subject Thesaurus and the eHealth Thesaurus

```
<meta name="dc.subject" scheme="gcore" content="Telemedicine">
<meta name="dc.subject" scheme="gcicth" content="TELENEUROLOGY;
TELEPATHOLOGY">
```

#### 3.5.6.2 French-only Web page described using terms from both the Core Subject Thesaurus and the eHealth Thesaurus

```
<meta name="dc.subject" scheme="gcore" content="Télémédecine">
<meta name="dc.subject" scheme="gcicth" content="TÉLÉNEUROLOGIE;
TÉLÉPATHOLOGIE">
```

---

## Chapter 4: Optional Elements

For department or agency Web resources, *optional* means that the elements described below are not required for compliance with CLF Standard 6.3. The use of some or all of these, including other Dublin Core elements or non–Dublin Core elements, may, however, be mandatory within a particular department or agency.

All element definitions are cited from *DCMI Metadata Terms* (<http://www.dublincore.org/documents/dcmi-terms>).

### 4.1 Audience

#### 4.1.1 Definition

A class of entity for whom the resource is intended or useful.

##### 4.1.1.1 Government of Canada constraint

Terms must be selected from an authorized controlled vocabulary.

#### 4.1.2 Usage

There are two possible ways to express this element in HTML: `dc.audience` and `dcterms.audience`.

##### **dc.audience**

The Audience element is expressed as follows:

```
<meta name="dc.audience" scheme="abc" content="def">
```

where *abc* is the label for a specific scheme and *def* is a value selected from the scheme to describe the audience for the resource.

Note: The use of `dc.audience` is to be considered a temporary method of expression that will change as Dublin Core develops. The following method of expressing the audience element is preferred.

---

## dcterms.audience

The Audience element is expressed as follows:

```
<meta name="dcterms.audience" scheme="abc" content="def">
```

where *abc* is the label for a specific scheme and *def* is a value selected from the scheme to describe the audience for the resource.

The Audience element is defined by the Dublin Core Metadata Initiative in a separate namespace. Departments or agencies using `dcterms.audience` must include a second instance of the `link` element to support the HTML code. This additional `link` element is the following:

```
<link rel="schema.dcterms" href="http://purl.org/dc/terms/">
```

### 4.1.3 Guidance

**Recommended practice:** It is strongly recommended that the Audience element be applied to all resources to which departments or agencies apply other mandatory and optional metadata elements when those resources are identified as being directed toward one or more particular audiences.

The Audience element should be repeated, with the appropriate scheme label, for each audience type that applies to the resource.

For more guidance on the use of the Audience element, including the use of additional audience schemes, see the *Guidelines for the Dublin Core Metadata Element Audience and the Government of Canada Audience Scheme, 2nd Version* ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/aud-aud/docs/2004/dublin-core/dublin-core00\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/aud-aud/docs/2004/dublin-core/dublin-core00_e.asp)).

### 4.1.4 Values

**Recommended practice:** It is strongly recommended that metadata developers use values from the *Government of Canada Audience Scheme* ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/aud-aud/docs/2003/schemfinal/schemfinal\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/aud-aud/docs/2003/schemfinal/schemfinal_e.asp)).

This scheme includes terms that describe a wide variety of users of Government of Canada Web

---

sites. While it includes a broad range of terms, it is not intended to be an exhaustive list of audiences.

The *Government of Canada Audience Scheme* is registered as a controlled vocabulary with Library and Archives Canada. The scheme label for the *Government of Canada Audience Scheme* is *gcaudience*.

Departments or agencies requiring that new audience terms be added to the vocabulary should address their enquiries to the Secretariat's Information Management Division ([im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca)).

#### 4.1.5 Examples

```
<meta name="dc.audience" scheme="gcaudience" content="seniors">
```

```
<meta name="dcterms.audience" scheme="gcaudience" content="seniors">
```

## 4.2 Coverage

### 4.2.1 Definition

The extent or scope of the content of the resource.

#### 4.2.1.1 Government of Canada constraint

Guidance is provided for spatial or geographic coverage only. The element must be populated with terms found in registered controlled vocabularies.

### 4.2.2 Usage

The Coverage element is expressed as follows:

```
<meta name="dc.coverage.spatial" scheme="abc" content="def">
```

where *abc* is the label for an authorized list of geographic names and *def* is a specific location chosen from the authorized source or set of geographic co-ordinates.



---

### 4.2.3 Guidance

The Coverage element is used to spatially reference Government of Canada Web resources using descriptors from registered controlled vocabularies, authority files, or a spatial reference system like geographic co-ordinates. The Dublin Core Metadata Initiative (DCMI) endorses element refinements that state whether spatial or temporal extent is being expressed. This section provides guidance for spatial coverage only.

Coverage is used when there is a distinct and definable spatial extent to the resource and there is a business requirement to enable the identification of the resource by its unique geographic location. When Coverage is used, the spatial information contained within the element can be used to perform powerful searches that allow a user to search on a specific location, exclude certain areas, sort by nearest location, and perform many other operations.

The following examples illustrate appropriate use of the Coverage element:

Example 1: Web resources on employment opportunities for various regions that contain information organized by area.

The Coverage element will contain geographic descriptors, geocodes, or spatial co-ordinates that define the areas referenced by the resource. This geographic information could enable a user to search on employment opportunities for a specific area.

Example 2: Web resources that identify national historical sites and contain information that specifies a geographic location.

The Coverage element will contain a geographic descriptor, such as a place name, postal code or spatial co-ordinates, that defines the location of the site(s). Such information could enable a user to search for historical sites within a certain radius or along a route of travel.

The Coverage element should not be used if the resource has no distinct and definable geographic extent or if there is no business requirement to use the unique spatial reference(s) specifically or inherently contained in the resource contents. For instance, it is not recommended to use the term *Canada* to describe federal government on-line resources that are *Canadian* but not directly related to geographic boundaries within Canada.

---

#### 4.2.4 Values

While each registered encoding scheme has its own method of expressing geographic names, certain general guidelines apply to the construction of these names for use in `dc.coverage.spatial`.

Sufficient detail must be provided to unambiguously identify the location. A place name must be expressed as a hierarchy, beginning with the largest geographical unit (usually the country name) and ending with the smallest.

Within the hierarchy of location information, geographic units should be separated by a semicolon (;). A semicolon is used as a separator rather than a comma because values in the encoding scheme may contain commas.

For example, the village of Kingston, P.E.I., would be identified using the Canadian Geographical Names Data Base as follows: Canada; Prince Edward Island; Queens; Kingston; Village.

Coverage must be populated using a controlled vocabulary, authority file or other registered scheme. Controlled vocabularies or authority files recommended by these guidelines for usage with Coverage are registered with Library and Archives Canada and can be accessed at <http://www.collectionscanada.ca/8/4/r4-281-e.html>. All recommended schemas are able to be translated to unique geographic locations, expressed as spatial co-ordinates. Named geographies from known, controlled sources can be translated to simple geographic co-ordinates (a point) or more complex geometries (bounding box, polygons or lines) through Web services, such as the CGDI Gazetteer Service (<http://cgdi-dev.geoconnections.org/prototypes/cgdigaz/>).

Departments and agencies are strongly encouraged to register with Library and Archives Canada other standardized geographic descriptors, geocodes or resources that may better meet their particular requirements. These will be assigned a unique scheme name that must be stated in every instance of Coverage.

The most appropriate choice of vocabulary depends on the resource being documented. More than one vocabulary may be used to describe a single resource.

The Coverage element must be repeated, using the appropriate scheme name each time, for every location described in the resource.

##### 4.2.4.1 Language equivalents in the Coverage element

The language equivalency rule applies for place names. See section 2.3.4 for further information.

---

## 4.2.5 Examples

The following are examples employing encoding schemes currently registered for use with Coverage by Library and Archives Canada or the Dublin Core Metadata Initiative.

*Canadian Geographical Names Data Base (CGNDB)*

[http://geonames.nrcan.gc.ca/index\\_e.php](http://geonames.nrcan.gc.ca/index_e.php)

This database contains the official names of Canada's provinces and territories, names of cities (inhabited places, towns, villages, etc.), topographical features, conservation areas, military areas, and First Nations communities.

To be identified unambiguously, the location must be constructed with the following components, in the following order: country name (i.e. Canada); province or territory name; administrative or geographical location name (e.g. district, county, township, municipality, section town); name of feature; feature type. The CGNDB provides further information on the definition of these components and the allowable values.

Using this encoding scheme, the `dc.coverage.spatial` metadata for a resource containing information on an employment opportunity in Peterborough, Ontario, would read as follows:

```
<meta name="dc.coverage.spatial" scheme="gcgeonames" content="Canada;
Ontario; Peterborough; Peterborough; City">
```

*Regions of Canada*

<http://geodiscover.cgdi.ca/gdp/util/etc/CanadaProvRegions.jsp>

This vocabulary consists of Canada's provinces and territories, six large inter-provincial regions and 39 intra-provincial regions. The list provides names for commonly recognized areas within Canada. The boundaries are based upon census divisions or provincial and territorial boundaries and therefore have an associated geometry.

The location is constructed using the complete hierarchy given in the encoding scheme. The hierarchy is composed of the term *Canada*; then a province or territory name or the term *Canadian Regions*; then a more precise geographic location name, if applicable.

Using this encoding scheme, Coverage for a resource containing agricultural output statistics for Canadian prairie farms would read as follows:

---

```
<meta name="dc.coverage.spatial" scheme="gcregions" content="Canada;
Canadian Regions; Prairie Provinces">
```

*Getty Thesaurus of Geographic Names (TGN)*

<http://www.getty.edu/research/tools/vocabulary/tgn/index.html>

The TGN can be used as a source for foreign place names. The Dublin Core Metadata Initiative prefers this vocabulary. Since the TGN contains only English terms, use another authoritative source to record international place names in French, such as a good dictionary or the *Répertoire de vedettes-matière* (<http://www.collectionscanada.ca/8/19/index-e.html>) to select equivalent French terms. Do not identify a scheme.

To be identified unambiguously, the location must be constructed using the hierarchy given in the encoding scheme, starting at the “nation” level and including all lower levels. The “hierarchy root,” “facet” and “continent” levels are omitted. The TGN provides further information on the construction of location hierarchies.

Using this encoding scheme, Coverage for a resource involving plans for a war memorial in Exeter, England, would read as follows:

```
<meta name="dc.coverage.spatial" scheme="tgn" content="United Kingdom;
England; Devon; Exeter">
```

For the French Web page, the Coverage element would read as follows:

```
<meta name="dc.coverage.spatial" content="Royaume-Uni; Angleterre; Devon;
Exeter">
```

*ISO 3166—Country Codes*

<http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/list-en1.html>

ISO 3166 can be used as a source to identify foreign country names. This authority list is registered with the DCMI as a source for country names. Complete place names should be used in preference to abbreviations or symbols.

---

Using this encoding scheme, Coverage for a resource on the spread of severe acute respiratory syndrome (SARS) in Southeast Asia (China, the Philippines and Singapore) would read as follows:

```
<meta name="dc.coverage.spatial" scheme="ISO3166" content="CN">  
<meta name="dc.coverage.spatial" scheme="ISO3166" content="PH">  
<meta name="dc.coverage.spatial" scheme="ISO3166" content="SG">
```

### *DCMI Point*

<http://www.dublincore.org/documents/dcmi-point>

DCMI Point is a scheme for uniquely identifying a point on the Earth's surface using its geographic co-ordinates. DCMI guidance provides further details on how to use this scheme.

Using this encoding scheme, Coverage for a resource on Grand Valley, Ontario, Canada, would read as follows:

```
<meta name="dc.coverage.spatial" scheme="DCMIPoint"  
content="north=43.9; east=-80.31">
```

### *DCMI Bounding Box*

<http://www.dublincore.org/documents/dcmi-box/>

DCMI Bounding Box is a scheme for uniquely identifying an area on the Earth's surface by defining its geographic limits as a bounding box. DCMI guidance provides further details on how to use this scheme.

With this encoding scheme, Coverage for a resource on Prince Edward Island, Canada, would read as follows:

```
<meta name="dc.coverage.spatial" scheme="DCMIBox"  
content="northlimit=47.0; southlimit=-45.9; westlimit=-64.5; eastlimit=-62.0">
```

---

## 4.3 Description

### 4.3.1 Definition

An account of the content of the resource.

### 4.3.2 Usage

The Description element is expressed as follows:

```
<meta name="dc.description" content="abc">
```

where *abc* is the description of the resource.

### 4.3.3 Guidance

An accurate, clear, concise and objective description helps users determine whether a resource will be useful to them.

The words in a description can be indexed by search engines. The text is often displayed in search results. As a general rule, descriptions should be no more than 100–20 words in length. Because only the first few lines of a description may be displayed in a listing of Web resources, it is important that the most significant information be contained in the first few sentences.

Word or character length of description may be dependent on department or agency policies or search engine requirements. Some search engines will index all words in a description but only display the first portion of the text.

### 4.3.4 Values

#### 4.3.4.1 Tips on preparing a description

- ▶ Use the headings, table of contents, and the introduction or summary as a guide for information about the resource.
- ▶ Try to identify the type of product or service in the description, e.g. “This report (document, CD-ROM, publication, diskette) . . .”
- ▶ Use simple, direct language.
- ▶ Use words that clearly describe the product or service.
- ▶ Make the description understandable to a wide audience.
- ▶ Use the objective third person point of view (avoid using “you” or “we”).

- 
- ▶ Be brief but as complete as possible.
  - ▶ Ensure that the description is coherent.
  - ▶ Use abbreviations, acronyms, and initialisms if they are widely known (e.g. NATO, UNESCO) but define unfamiliar terms and symbols the first time they occur.
  - ▶ Avoid jargon.
  - ▶ Ensure that the description informs the reader about the subject of the resource and presents each distinguishing characteristic of the product or service.

#### **4.3.4.2 HTML description and dc.description**

Departments or agencies using HTML may wish to use both HTML description and dc.description as some search engines ignore dc.description. In such cases, the content values for both must be identical.

#### **4.3.5 Other considerations**

Departments or agencies are urged to develop their own organizational guidance for writing descriptions based on *Guidelines for Writing Descriptions for Government of Canada Web Sites* ([http://www.tbs-sct.gc.ca/im-gi/references/meta-descrip/meta-descrip00\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/references/meta-descrip/meta-descrip00_e.asp)).

#### **4.3.6 Examples**

##### **4.3.6.1 English-only Web resource**

<http://www.collectionscanada.ca/trains/index-e.html>

```
<meta name="dc.description" content="Exhibition on the history of railways in Canada, including railway advertising, brochures, timetables, posters from 1883 to 1952, sound effects, travelogues and an essay on the contribution of the railway to the growth of Canada.">
```

##### **4.3.6.2 French-only Web resource**

<http://www.collectionscanada.ca/trains/index-f.html>

```
<meta name="dc.description" content="Exposition consacrée à l'histoire des chemins de fer au Canada. Comprend des annonces publicitaires sur les chemins de fer, des brochures, des horaires et des affiches datant de 1883 à 1952, des effets sonores, des récits de voyage et un essai sur la contribution des chemins de fer à la croissance du Canada.">
```

---

### 4.3.6.3 Bilingual resource

<http://bsa.cbasc.org>

```
<meta name="dc.description" content="The Business Start-up Assistant (BSA) is a one-stop site for information on starting a business in Canada. It covers topics such as market assessment, financing, taxation, writing a business plan and many more - all critical to starting a business.">
```

```
<meta name="dc.description" content="Le Système d'aide au démarrage d'une entreprise (SADE) est un guichet unique d'information sur le démarrage d'une entreprise au Canada. Le site Web couvre plusieurs sujets, notamment les études de marché, le financement, la fiscalité, la préparation d'un plan d'affaires, tous essentiels au démarrage d'une entreprise.">
```

## 4.4 Format

### 4.4.1 Definition

The physical or digital manifestation of the resource.

#### 4.4.1.1 Government of Canada constraint

Terms must be selected from a registered controlled vocabulary.

#### 4.4.1.2 Government of Canada interpretation

Format is indicated by the file extension of the program or application used to create the resource (<dc.format>: *Guidelines*,

[http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/guidelines-lignes-directrices\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/guidelines-lignes-directrices_e.asp)).

### 4.4.2 Usage

The use of the Format element is essential in the creation of metadata for multimedia digital collections that contain a multitude of file formats and applications. The metadata can be embedded in the resource itself or stored externally in a metadata repository.

The form of expression for the Format element will depend on the technical environment of local implementations.

The Format element is not repeatable.

### 4.4.3 Guidance

The Format element should not be used unless an organization has the ability to manage metadata in a database or a repository.



---

Every distinct resource should have distinct metadata. Metadata contained in the source code of an HTML resource describes the HTML resource itself. It does not describe resources linked to, or displayed on, that resource. As a result, metadata that *does* describe a sound, video, other textual non-HTML format, etc., linked to an HTML resource should not be stored in the source code of that HTML resource.

This situation may be confusing. A photo or image (using the .gif or .jpeg file format) appears to be part of the HTML resource in the Web browser; indexers may wish to describe that picture in the metadata for the HTML resource. It is important, however, to separate the metadata for these resources. Metadata for non-HTML resources will likely have to be stored and managed in a database or a repository.

For more guidance on the use of `dc.format`, see *dc.format: Guidelines* at [http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/guidelines-lignes-directrices\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/guidelines-lignes-directrices_e.asp).

#### 4.4.4 Values

**Recommended practice:** It is strongly recommended that metadata developers use values from the *Government of Canada Format Scheme* ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/schem\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/fmt-fmt/docs/2003/schem_e.asp)). This scheme includes terms that describe a wide variety of Web site formats.

The *Government of Canada Format Scheme* is registered as a controlled vocabulary with Library and Archives Canada. The scheme label for the *Government of Canada Format Scheme* is *gcformat*.

The *Government of Canada Format Scheme* is intended to encompass all formats found on federal Web sites. Departments or agencies requiring that new formats be added to the vocabulary should address enquiries to the Secretariat's Information Management Division ([im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca)).

## 4.5 Type

### 4.5.1 Definition

The nature or genre of the content of the resource.

#### 4.5.1.1 Government of Canada constraint

Terms must be selected from a registered controlled vocabulary.

---

### 4.5.1.2 Government of Canada interpretation

The Type element may describe the purpose or functions of content; it does not describe the subject (i.e. what the resource is about) or the format (physical or digital manifestation) of the resource (GOL Metadata Working Group, <dc.type> *Sub-group, Final Report*, November 6, 2002,

[http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-tyt/docs/2003/finalrep-final/finalrep-final\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-tyt/docs/2003/finalrep-final/finalrep-final_e.asp)).

### 4.5.2 Usage

The Type element is expressed as follows:

```
<meta name="dc.type" scheme="abc" content="def">
```

where *abc* is the label for a specific scheme and *def* is a value selected from the scheme to describe the type of resource.

### 4.5.3 Guidance

The Type element is used to describe general categories, functions, or genres of Web resource content. It is not to be confused with the Format element, which describes the physical or digital manifestation of a resource, or with the Subject element, which describes the topic of a resource.

Including a value for `dc.type` helps users find the information by giving them an additional way to narrow their search queries. When users select a resource type along with other terms (such as title, subject, or date) in a search query, they will be able to narrow their search for an event, presentation, report, policy, etc. For example, a user can reduce the results of a subject search for *information management* by also selecting the type *event* or *policy*.

The Type element must be repeated, with the appropriate scheme label, for each type that applies to the resource.

### 4.5.4 Values

**Recommended practice:** It is strongly recommended that metadata developers use values from the *Government of Canada Type Scheme*

([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-tyt/docs/2003/schem/schem\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-tyt/docs/2003/schem/schem_e.asp)). This scheme includes terms that describe a wide variety of resource types found on Government of Canada Web sites.

---

The *Government of Canada Type Scheme* is registered as a controlled vocabulary with Library and Archives Canada. The scheme label for the *Government of Canada Type Scheme* is *gctype*.

While the *Government of Canada Type Scheme* includes a broad range of terms, it is not intended to be an exhaustive list of types. For information on adding terms to the *gctype* scheme, see the *Process for Updating the GoC Type and Aggregation Level Schemes Draft* ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-typ/docs/2003/type/type\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-typ/docs/2003/type/type_e.asp)).

Organizations may also request the inclusion of new resource types by contacting the Secretariat's Information Management Strategies Division ([im-gi@tbs-sct.gc.ca](mailto:im-gi@tbs-sct.gc.ca)).

For more guidance on the use of the Type element, see *dc.type Sub-Group: Usage Guidelines* ([http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-typ/docs/2003/usage-util/usage-util\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/typ-typ/docs/2003/usage-util/usage-util_e.asp)).

## 4.5.5 Examples

### 4.5.5.1 English resource

The National Flag of Canada

[http://www.canadianheritage.gc.ca/progs/cpsc-ccsp/sc-cs/df1\\_e.cfm](http://www.canadianheritage.gc.ca/progs/cpsc-ccsp/sc-cs/df1_e.cfm)

```
<meta name="dc.type" scheme="gctype" content="reference material">
```

### 4.5.5.2 French resource

Le drapeau canadien

[http://www.canadianheritage.gc.ca/progs/cpsc-ccsp/sc-cs/df1\\_f.cfm](http://www.canadianheritage.gc.ca/progs/cpsc-ccsp/sc-cs/df1_f.cfm)

```
<meta name="dc.type" scheme="gctype" content="matériel de référence">
```

---

### 4.5.5.3 Bilingual resource

Canadian Heritage welcome page

<http://www.canadianheritage.gc.ca>

```
<meta name="dc.type" scheme="gctype" content="welcome page">  
<meta name="dc.type" scheme="gctype" content="page de bienvenue">
```

### 4.5.5.4 Resource with multiple dc.type element terms

The Type element is repeated for each individual term.

```
<meta name="dc.type" scheme="gctype" content="educational material">  
<meta name="dc.type" scheme="gctype" content="geospatial material">
```

## 4.6 Keywords

HTML `keywords` metadata contains additional words or phrases to serve as access points for search engines. This metadata may be useful in the context of local information management systems. Keyword values can be natural language terms that are not part of a controlled vocabulary. Whether and how keywords are used depends on local metadata access policies and search engine configuration.

The `keywords` element is not a Dublin Core element.

For guidance on the use of keywords, please see CLF Best Practices ([http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03_e.asp)).

---

## Appendix A: Web Resources on Government of Canada Metadata Policies and Practices

### Common Look and Feel (CLF)

*CLF for the Internet—Navigation and Format, Standard 6.3*

([http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-06-03_e.asp))

*CLF for the Internet— Official Languages, Standard 7.8*

([http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-07-08\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/inter/inter-07-08_e.asp))

### Government On-Line Metadata Working Group

[http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/intro\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/mwg-gtm/intro_e.asp)

### Information Management Resource Centre (IMRC)

*Metadata* ([http://www.tbs-sct.gc.ca/im-gi/meta/meta\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/meta_e.asp))

*Government of Canada Metadata Guidance*

([http://www.tbs-sct.gc.ca/im-gi/meta/meta-cdn\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/meta-cdn_e.asp))

*Common Look and Feel Metadata Standard Definitions and HTML Examples*

([http://www.tbs-sct.gc.ca/im-gi/meta/clf-nsi-meta/clf-nsi-meta\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/clf-nsi-meta/clf-nsi-meta_e.asp))

*Government of Canada Metadata Framework*

([http://www.tbs-sct.gc.ca/im-gi/meta/frame-cadre\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/meta/frame-cadre_e.asp))

*Information Management Glossary*

([http://www.tbs-sct.gc.ca/im-gi/glossary/glossary\\_e.asp](http://www.tbs-sct.gc.ca/im-gi/glossary/glossary_e.asp))

*Framework for the Management of Information in the Government of Canada*

([http://www.tbs-sct.gc.ca/fmi-cgi/index\\_e.asp](http://www.tbs-sct.gc.ca/fmi-cgi/index_e.asp))

### Library and Archives Canada—Controlled Vocabularies and Thesauri

*Thesauri and Controlled Vocabularies*

(<http://www.collectionscanada.ca/8/4/r4-280-e.html>)

*Implementing a Controlled Vocabulary on Government of Canada Web Sites*

(<http://www.collectionscanada.ca/8/4/r4-294-e.html>)

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*Canadian Government-maintained Controlled Vocabularies and Thesauri*  
(<http://www.collectionscanada.ca/8/4/r4-281-e.html>)

*Registering a Standardized Vocabulary*  
(<http://www.collectionscanada.ca/8/4/r4-293-e.html>)

## Management of Government Information

*Policy on the Management of Government Information*  
([http://www.tbs-sct.gc.ca/pubs\\_pol/ciopubs/TB\\_GIH/mgih-grdg\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/ciopubs/TB_GIH/mgih-grdg_e.asp))

## Treasury Board Information Management Standard (TBITS)

*TBITS 39: Treasury Board Information Management Standard, Part 1: Government On-Line Metadata Standard*  
([http://www.tbs-sct.gc.ca/its-nit/standards/tbits39/crit391\\_e.asp](http://www.tbs-sct.gc.ca/its-nit/standards/tbits39/crit391_e.asp))

*TBITS 39: Treasury Board Information Management Standard, Part 2: Controlled Vocabulary Standard* ([http://www.tbs-sct.gc.ca/its-nit/standards/tbits39/crit392\\_e.asp](http://www.tbs-sct.gc.ca/its-nit/standards/tbits39/crit392_e.asp))

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## Appendix B: Sample HTML Metadata Source Code

The following is an example of how required and optional metadata elements would appear in the HTML source code for an English sub-site of Health Canada. Required elements have been highlighted in bold face.

```
<link rel="schema.dc" href="http://purl.org/dc/elements/1.1/">
<link rel="schema.dcterms" href="http://purl.org/dc/terms/">
<meta name="dc.title" content="Conferences - eHealth Resource Centre">
<meta name="dc.creator" content="Government of Canada, Health Canada, Office
of Health and the Information Highway (OHIH)">
<meta name="dc.language" scheme="ISO639-2" content="eng">
<meta name="dc.date.created" content="2000-00-00">
<meta name="dc.date.modified" content="2003-03-17">
<meta name="dc.subject" scheme="gcieth" content="Health care; Information and
communications technologies; Telehealth; Health informatics; Databases">
<meta name="dc.subject" scheme="gccore" content="Conferences; Health care;
Databases; Meetings">
<meta name="dcterms.audience" scheme="gcaudience" content="educators">
<meta name="dc.coverage.spatial" scheme="gcgeonames" content="Canada; Ontario">
<meta name="dc.description" content="Links to information and communications
technologies in health, conferences, tradeshow, and workshops">
<meta name="description" content="Links to information and communications
technologies in health, conferences, tradeshow, and workshops">
<meta name="dc.type" scheme="gctype" content="resource list">
<meta name="keywords" content="conferences, health care, healthcare, information and
communications technologies, information and communications technology, ICT, ICTs,
telehealth, health informatics, databases, meetings, e-health, ehealth">
<title>Conferences - eHealth Resource Centre</title>
```