

Dublin, Ohio, was to define a set of descriptive elements simple enough for non-catalogers, including authors themselves, to describe Web resources.⁷ It began with thirteen elements and later, with the addition of the elements Description and Rights, was expanded to fifteen.

Since its inception, DC has been well received by many different information communities worldwide. In 2001, the Dublin Core Metadata Element Set was approved by the National Information Standards Organization as ANSI/NISO Standard Z39.85-2001 (updated May 2007).⁸ In February 2003, it was approved as an international standard, ISO Standard 15836-2003.⁹

Dublin Core Element Set

The Dublin Core contains a set of fifteen elements.¹⁰ These are listed below:

Element Name: title

Label: Title

Definition: A name given to the resource.

Element Name: creator

Label: Creator

Definition: An entity primarily responsible for making the resource.

Comment: Examples of a Creator include a person, an organization, or a service. Typically, the name of a Creator should be used to indicate the entity.

Element Name: subject

Label: Subject

Definition: A topic of the content of the resource.

Comment: Typically, Subject will be represented using keywords, key phrases or classification codes. Recommended best practice is to use a controlled vocabulary. To describe the spatial or temporal topic of the resource, use the Coverage element.

Element Name: description

Label: Description

Definition: An account of the resource.

Comment: Description may include but is not limited to an abstract, table of contents, graphical representation, or free-text account of the resource.

Element Name: publisher

Label: Publisher

Definition: An entity responsible for making the resource available.

Comment: Examples of a Publisher include a person, an organization, or a service. Typically, the name of a Publisher should be used to indicate the entity.

Element Name: contributor

Label: Contributor

Definition: An entity responsible for making contributions to the content of the resource.

Comment: Examples of a Contributor include a person, an organization, or a service. Typically, the name of a Contributor should be used to indicate the entity.

Element Name: date

Label: Date

Definition: A point or period in time associated with the life cycle of the resource.

Comment: Date may be used to express temporal information at any level of granularity. Recommended best practice is to use an encoding scheme, such as the W3CDTF profile of ISO 8601.

Element Name: type

Label: Resource Type

Definition: The nature or genre of the resource.

Comment: Recommended best practice is to use a controlled vocabulary (for example, the DCMI Type Vocabulary [DCMITYPE]). To describe the file format, use the Format element.

Element Name: format

Label: Format

Definition: The file format, physical medium, or dimensions of the resource.

Comment: Examples of dimensions include size and duration. Recommended best practice is to use a controlled vocabulary (for example, the list of Internet Media Types [MIME]).

Element Name: identifier

Label: Resource Identifier

Definition: An unambiguous reference to the resource within a given context.

Comment: Recommended best practice is to identify the resource by means of a string conforming to a formal identification system.

Element Name: source

Label: Source

Definition: A related resource from which the present resource is derived.

Comment: The described resource may be derived from the related resource in whole or in part. Recommended best practice is to reference the related resource by means of a string conforming to a formal identification system.

Element Name: language

Label: Language

Definition: A language of the resource.

Comment: Recommended best practice is to use a controlled vocabulary such as RFC 4646.

Element Name: relation

Label: Relation

Definition: A related resource.

Comment: Recommended best practice is to identify the resource by means of a string conforming to a formal identification system.

Element Name: coverage

Label: Coverage

Definition: The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant.

Comment: Spatial topic and spatial applicability may be a named place or a location specified by its geographic coordinates. Temporal topic may be a named period, date, or date range. A jurisdiction may be a named administrative entity or a geographic place to which the resource applies. Recommended best practice is to use a controlled vocabulary such as the *Thesaurus of Geographic Names* (TGN). Where appropriate, named places or time periods can be used in preference to numeric identifiers such as sets of coordinates or date ranges.

Element Name: rights

Label: Rights

Definition: Information about rights held in and over the resource.

Comment: Typically, rights information includes a statement about various property rights associated with the resource, including intellectual property rights.

Although the original intention was to develop a simple and concise schema for describing Web resources, the Dublin Core has been used to describe other types of resources as well. In different applications, some users require more descriptive details than others. Thus, there are two different views with regard to the implementation of DC: the minimalist view supporting a minimum of elements and simple semantics and syntax and the structuralist view supporting greater extensibility through finer semantic distinctions. These different views have led to two approaches to the implementation of DC: the simple (unqualified) DC and the qualified DC with finer details allowed within each element. Simple Dublin Core consists of the original fifteen elements; qualified Dublin Core includes three additional elements (Audience, Provenance and RightsHolder), as well as a group of qualifiers that refine the semantics of the elements.¹¹ For example, the element SUBJECT may be qualified to indicate the nature (i.e., keyword, controlled vocabulary, or classification) and the encoding schema (MeSH, LCSH, DDC, LCC, etc.) of the value. The DCMI recognizes two broad classes of qualifiers:¹²

Element Refinement. These qualifiers make the meaning of an element narrower or more specific. A refined element shares the meaning of the unqualified element, but with a more restricted scope. A client that does not understand a specific element refinement term should be able to ignore the qualifier and treat the metadata value as if it were an unqualified (broader) element. The definitions of element refinement terms for qualifiers must be publicly available.

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