

Chapter 14

The Concept of Metadata for Digital Information Resources with Special Reference to Dublin Core (DC)

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ABSTRACT

This chapter defines metadata, their types, creation, and some of the important functions. It enumerates an overview of the basic elements of the Dublin Core Metadata standard, and other metadata standards are also mentioned. The problem has been studied based on the information available in the open literature. As electronic information resources are rising and digital library initiatives are gaining wide acceptance, knowledge of metadata formats will help our library professionals in adapting their skills in cataloguing, classification, subject heading, key wording, and indexing for better inventory and exhaustive usage of electronic information. Metadata serves three general purposes. It supports resource discovery and locates the actual digital resource by inclusion of a digital identifier. As the number of electronic resources grows, metadata is used to create aggregate sites, bringing similar resources together and distinguishing dissimilar resources. The World Wide Web has created a revolution in the accessibility of digital information resources. Metadata is key to ensuring that resources will survive and continue to be accessible into the future. It can be embedded in a digital object or it can be stored separately like library catalogues. The Dublin Core (DC) is the most popular and widely accepted standard proposed to describe almost all categories of networked electronic resources.

DOI: 10.4018/978-1-4666-2500-6.ch014

INTRODUCTION

Metadata in its broadest interpretation is data about data. The importance of metadata as an aid to resource discovery is acknowledged in the digital library community. The Dublin Core initiative is a metadata standardization effort whose goal it is “to define a core set of elements for resource discovery,” and, in particular, to develop a set that “provides adequate data for Web resource discovery and is simple for authors and content managers to create and maintain.” Thiele in a recent review article says of the Dublin Core:

The object is to develop a simple metadata set and associated syntax that will be used by information producers and providers to describe their networked resources, thereby improving their chance of discovery.

The information overload in electronic or digital environment has increased the need to search the relevant and right information in an effective and efficient way. In order to meet this need, metadata is only the option. Metadata is an emerging approach that helps to find a standardized method for the organization, management, and dissemination of digital or electronic resources to end users in a meaningful way. In this respect, various metadata standards have been developed over the past few years for representing different types of digital information resources.

METADATA

Metadata is often called “data about data” or information about information.” Metadata is normally understood to mean structured data about resources that can be used to help support a wide range of operation. These include resource description and discovery, the management and long-term preservation of digital information resources. Thus, the term metadata can be inter-

preted as referring to something that is associated with a fact or data. In the library environment, definitions of metadata focus on the representation of information resources, where an information resource refers to any digital or non-digital material carrying information, whether textual or non-textual, that can be made explicit. Examples of information resources include books, Web pages, video recordings, images, and cartographic materials. Definitions of metadata provided by information professionals often specify both the type of resources for which metadata is used and the purpose(s) it serves, such that, over time, what constitutes metadata has grown in scope to suit the needs of multiple groups.

Metadata is data that represents certain properties of an information resource according to the semantic structure provided by an externally defined scheme. Just as importantly, this definition clarifies the distinction between metadata and a mere collection of values that describe an information resource. The popular interpretation of metadata as data about data or data about an information resource is, in fact, the definition of a metadata record. A metadata record consists of one or more element-value pairs, or metadata statements, that are used to describe the properties of an information resource.

It should be noted that, while all metadata schemes necessarily specify a set of elements and their semantics, some schemes do not prescribe content rules or specify a particular syntax. In such a case, metadata creators are free to establish their own rules and to apply any syntax they find appropriate when creating a metadata record for a resource.

Definitions of metadata frequently specify the purposes for which metadata is to be used. However, as Gilliland (2008) explains, metadata can be utilized in a wide range of activities. To define metadata based on purpose creates confusion as to what can be considered metadata. Specifying the purpose(s) of metadata is problematic because each purpose identified in a definition becomes a

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