



# Records Advice

No 25

## Metadata

### *What is metadata?*

Metadata is usually described as “data about data” and comprises methodology and process, formal or informal, to describe and manage data. A variety of information professions use the term metadata to describe aspects of data management thus making metadata context dependent, so the type and nature of the metadata varies accordingly. The most familiar metadata is the library catalogue entry describing a book. Each entry contains information about the book; title, author, publisher, date and place of publication, edition, ISBN, number of pages, types of illustrations, whether or not it has index or bibliography, whether or not it is part of a series, etc.

Metadata describing a file may include the name of the agency, branch and section of the file requestor, the name of the file requestor, the structured title, free text title, the date ranges of documentation held on the file, preceding and later papers, archival action describing the records disposal schedule, disposal action, date of review, a unique identification number, security classification and relationships with other files.

Formal metadata applications are characterised by a schema that defines the types of data that they expect to be included (e.g. date created, who made it, format). Recent national and international metadata developments in relation to electronic resources have seen the creation of a number of high profile schema (for instance in the library catalogue example this has been standardised under MARC <http://www.loc.gov/marc/marc.html>; others are Dublin Core, <http://dublincore.org/> and Recordkeeping metadata standard for Commonwealth agencies, <http://www.naa.gov.au/records-management/create-capture-describe/describe/rkms/index.aspxetc>).

### *Different types of metadata*

#### **Administrative metadata**

Administrative metadata assists in the management of information, that is for the administration of metadata not of resources, i.e. capturing information about when metadata was created or updated and who performed this function. The Dublin Core Metadata Initiative includes an administrative metadata element set.

#### **Descriptive metadata**

Descriptive metadata schemas (e.g. MARC, Dublin Core) are used in the discovery and identification of digital objects. The AGLS metadata element set is resource

discovery metadata based on Dublin Core for online description of resources invented in the National Archives of Australia and embodied as *Australian Standard 5044-2002 AGLS metadata element set*. It follows that if metadata is applied to an online resource the same metadata should be applied to the offline version. The AGLS element set comprises 19 elements, the 15 Dublin Core elements with four added for the Australian context, it also has qualifiers. Besides the ability to be used for offline resources, AGLS is also used to describe services and organisations as well as information resources.

### **Preservation metadata**

Preservation metadata is essential to ensuring long-term accessibility by the development of structured ways to describe and record information needed to manage the preservation of digital resources.

Preservation metadata is intended to store technical details on the format, structure and use of the digital content, the history of all actions performed on the resource including changes and decisions, the authenticity information such as technical features or custody history, and the responsibilities and rights information applicable to preservation actions. The National Archives of Australia XENA <http://www.naa.gov.au/records-management/secure-and-store/e-preservation/at-naa/software.aspx> project uses XML and for its open source digital preservation software available for downloading from sourceforge <http://xena.sourceforge.net/>.

### **Structural metadata**

Structural metadata relates the pieces of a compound object together. If a book consists of several page images, it is clearly not enough to preserve the physical image files; information concerning the order of files (page numbering) and how they relate to the logical structure of the book (table of contents) is also required. Three standards for packaging complex digital objects are the Metadata Encoding and Transmission Standard (METS), <http://www.loc.gov/standards/mets/the> IMS Content Packaging XML Binding, and the MPEG-21 Digital Item Declaration Language (DIDL).

### **Technical metadata**

Assists access to the digital content technical metadata, such as capture information, physical format, file size, checksum, sampling frequencies, etc., may be necessary to ensure the continued usability of an object, or to reconstruct a damaged object.

### **Recordkeeping metadata**

Metadata, whether point of capture or associated with subsequent processes, ensures authenticity, reliability, usability and integrity over time.

Australian Standard *AS ISO 15489 2002 – Records Management* defines recordkeeping metadata as "Data describing context, content and structure of records and their management through time".

Metadata management is an inextricable part of records management. Initially metadata defines the record at its point of capture. This fixes the record into its business context and establishes control over it. Metadata accrues over time and also

relates to records management processes and business processes. All forms of metadata can be sourced or re-used by multiple systems for multiple purposes.

When implemented records management metadata does this by:

- registration and classification metadata - the metadata that gives a record its unique identity in a records system and classifies it in a classification scheme, this demonstrates the links between records;
- content, structure and context metadata - the metadata that gives a record content including title, abstract structure, type, format and context as well as identifying who created it, where, when and its relationship with other records, this establishes the provenance of the record;
- recordkeeping process metadata - metadata that provides information or evidence about processes a record may have undergone such as viewing, transmitting, transferring custody, accessing, reviewing, sentencing, etc. that shows the integrity of the record is intact.

Other examples of Australian recordkeeping metadata are [VERS](#), and the [South Australian Recordkeeping metadata standard](#).

Record metadata is closely related to the business process and is applied at different levels and stages of the recordkeeping process so there is an inherent hierarchy of application. Agency ownership metadata is at a high level, whereas preservation metadata is at a very low, record specific level. Most metadata is generated automatically by electronic systems especially the process metadata. It is at document creation that some manual point of capture input is required.

Full information on metadata is in the standard *AS ISO 23081.1-2006: Information and documentation - Records management processes - Metadata for records – Principles*, which specifies the principles that underpin and govern records management metadata.