

Metadata to the rescue – enabling understanding of data and fitness for use through quality descriptions that also trace its history

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Abstract

In the era of overwhelming amounts of data and information being readily available over the web and other media sources it is vitally important to adopt machine-to-machine readable techniques that enable quick, reliable and repeatable resource discovery and then based on rules and definitions, facilitate determination as to whether the data and information are relevant and fit for purpose. Quality metadata can provide such a tool as: * It allows the creation of multiple discipline specific metadata profiles based on international generic standards (e.g. ISO 19115-1, DCAT2) thus improving data management and interoperability of data * When expressed as an XML, Turtle or RDFXML it provides a machine readable format which is easy to manipulate and automate * Through cross-walks to other community defined standards, it can be easily translated and used by multiple communities, (e.g. from the ISO 19115-1 to DCAT2 and schema.org) * It enables the user to understand the data, its purpose, suitability and usability by capturing the history of acquisition and subsequent transformations, the description and evaluations of data quality, and the data dictionaries used * Through the application of consistent vocabulary tags and persistent identifiers it helps improve data discoverability on the web and also trace its usage and incorporation in derivative products * It records and explains how to access and use data by related services, APIs and other tools Australian and New Zealand Metadata Working Group (ANZ MDWG) has been working on development a consistent methods of implementing such tool across disciplines, communities and sectors to facilitate a conversation, support a wider understanding and consistent application. Numerous communication and educational materials have been developed to support it. The current focus of the group is on development of improving interoperability and consistency of data management and description through developing discipline specific profiles and ontologies. This presentation will examine challenges, achievements and current plans of the ANZ MDWG.



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Australia and New Zealand Metadata Working Group (ANZ MDWG)

Who are we?

- The Australia and New Zealand Metadata Working Group (ANZ MDWG (<https://www.icsm.gov.au/what-we-do/metadata-working-group>)) was established on 3 June 2018



Our Journey - Challenges & Achievements

Big Question: Are we on the right path?

Stakeholder surveys were run in 2018 and 2020 to define major challenges and requirements, and enable prioritisation and plannin. As a result, Roadmaps with a set of acitlvities were created.

Roadmap 2018-2020

Main challenges:

- Prioritisation: managers engagement and funding
- Data sharing and integration: developing consistent metadata
- Support: educational resources and communication
- Technical: tools and consistent implementation



Metadata as a Tool for FAIR Data and Services Orchestration

What is the challenge?

Data and Services:

- Exponentially increasing amount available on the web
- Manual searches are no longer viable
- Machine-to-machine communication is vital for finding data and services

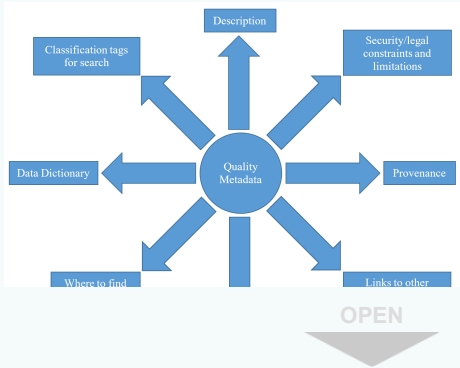
Data Understanding and Integration:

- Availability of self-describable data to support access through API
- Ability to connect and integrate datasets to support decision making
- Understanding data provenance

Metadata is a knowledge organisation system which can help to resolve these challenges



Our support for FAIR of Data and Services



Work in Progress

Work across Australia and New Zealand

Advice on generic and community specific implementation and compliancy aspects of metadata, e.g.:

- Preparing metadata for GDA2020 and the AGRS (https://www.icsm.gov.au/sites/default/files/Preparing%20metadta%20for%20the%20Australian%20Geospatial%20Reference%20System_v2.pdf)
- Australian Emergency Services website

