



Sustainable framework for public data integration and sharing - Australia and New Zealand

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Developing and implementing consistent metadata is important for data integration between users, improved data governance through the application of common metadata management practices and successful discoverability. In addition, it helps to reduce overall cost of implementation for data custodians.

Many spatial government organisations in Australia and New Zealand (NZ) adopted the ISO 19115 dataset metadata and are now moving to the latest version, ISO 19115-1. However, the majority of data discoverability and access globally is enabled through Internet search engines, like Google, which utilise web standards, particularly as schema.org and DCAT. These standards are also used by major government data and information repositories (e.g. the Australian national data catalogue, data.gov.au). The ISO 19115 series and W3C standards for dataset metadata each have their own advantages and have many tools and techniques developed for them. Historically, the separate usage of ISO and web metadata standards has led to development of two distinct streams of users and associated management and access tools. This has created challenges for communication (at human level), and technical and semantic integration.

Bringing them together through interoperability mapping helps take advantage of their best features leading to:

- Enhancing discovery of the resources they describe through major Internet Search Engines (e.g. Google) and individual organisational portals
- Streamlining translation and access to data in multiple forms and formats
- Enabling usage of best and most appropriated metadata manipulation tools
- Ensuring consistency in adherence to security and legal contaminants

These should all help to maximise re-use of the data, services and other resources metadata describe.

Implementing consistent, seamless, translations between ISO and web standards enables the application of semantic web techniques to metadata thus improving access, integration and analysis but without the requirement to change the large numbers of catalogues already implementing ISO-19115 series standards. This will allow Australian and NZ organisations to stay abreast of changing technological trends without significant changes to daily operations.

Metadata, both its translation between standards and its initial generation and management, is a complex subject that is continuously evolving. Expertise in metadata standards and their implementation is rare. Organisations utilise multiple practices, tools and interpretations that makes integration of metadata difficult, inconsistent and, in some cases, prevents resource discovery. Thus, it's vital to setup a mechanism for education, communication and support.

To address these challenges, the Australian and NZ Spatial Information Council (ANZLIC)'s Metadata Working Group was recently re-established. The Group was formed as collaboration between government agencies, research organisations and academia and focuses on:

- advising on best practice for managing and recording metadata
- provision/discussion of metadata support tools
- providing a forum for internal and external communication between international and national interest groups
- developing documentation and tools to enable consistent metadata practices between organisations, particularly profiling

Initial progress has resulted in agreement on metadata best practice. Several agencies are now working towards implementing a common metadata profile of ISO19115-1 and systems it maps to, and have started updating metadata editing and validating tools. Full realisation of the group's goals will ensure much improved access to public data and provide a sustainable framework for governance.