

Metadata Hub - One for all

The Metadata Hub provides a generic service for metadata repositories. Based on this, different kinds of metadata repositories can be accessed with uniform tools without the researchers having to deal with the complex details.

In the domain of research data management, there are a variety of repositories that offer metadata management services to researchers. This poses the challenge that these repositories usually have different interfaces and in nature are not very interoperable with each other, violating one of the FAIR Principles.

Our work aims to build a bridge between these repositories as a generic service for metadata repositories, the Metadata Hub. It's accessible via the Turntable API, which defines a uniform interface for metadata repositories.

To validate metadata documents, a definition of the document structure has to be available. For JSON/XML, there is JSON/XML Schema for this purpose. In case of JSON-LD, JSON Schema is not sufficient. Therefore, so-called application profiles are used, which are defined by using Shapes Constraint Language (SHACL).

In general, the Turntable API is split in two parts:

The first part is about managing (CRUD) 'schemas/application profiles' which are describing the structure of metadata documents, extended by the ability to validate a metadata document against a registered 'schema/application profile/...'.
The second part is about managing the metadata documents itself based on one of registered 'schemas/application profiles'.

Currently, we build the Metadata Hub as a Demonstrator mapping two completely different repositories (Cosine, MetaStore) as a showcase. The Metadata Hub is powered by the Metadata Hub Framework and provides a web interface to make the service available to a broad mass.

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Tools

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Data Infrastructure Provider

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FAIR, services, tools, metadata

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