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Metadata by Design –Building Profiles for FAIR and Reusable Data

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Creating well-structured metadata profiles is essential for enabling long-term access, understanding, and reuse of research data. However, many researchers struggle with deciding what information to include, how to structure it, and where to find standardized terminology. This poster offers practical guidance tailored to everyday researchers who aim to store their data in platforms like Coscine.

The process begins with identifying relevant metadata elements from available data sources. From there, researchers select appropriate metadata standards—such as Dublin Core, schema.org, or DCAT—which are widely used and serve general-purpose needs. To ensure semantic consistency and clarity, controlled vocabularies and ontologies are incorporated into the profiles.

To meet the specific needs of various disciplines, researchers often rely on schema extensions or domain-specific vocabularies. These help enrich the metadata and make it more meaningful within particular scientific contexts.

A key component of this approach is the use of the Resource Description Framework (RDF) to formally represent metadata, making it both machine- and human-readable. Tools like the AIMS Metadata Generator support this process by assisting in the creation of RDF-based metadata.

By building metadata profiles thoughtfully and using established standards and tools, researchers can ensure that their data remains understandable and reusable—even years after its initial creation.

The poster presents a step-by-step strategy to guide researchers through designing effective metadata profiles. Applying common standards not only improves internal data quality but also enables metadata exchange across repositories, ultimately fostering interoperability.

Abstract

Poster

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