

Beitrag ID: 5 Beitragskennung: **W03**Typ: **Workshop (Short)**

Creating RDF-compliant metadata templates with the AIMS Metadata Profile Service

Generating FAIR research data and enabling its reuse is the overall goal of research data management. However, establishing machine-readable knowledge representation - the “I” in FAIR - as the foundation for FAIR data and metadata remains a major challenge for many research communities. We have developed an approach to create subject-specific, RDF-compliant metadata profiles (i.e., SHACL shapes) that enable precise and flexible documentation of research processes and data. Our modelling approach supports inheritance between profiles: communities can create and share modular profiles as building blocks, which others can adopt and extend, so that metadata remains community-specific and interoperable at the same time.

To facilitate the modelling process and make it accessible to users with limited ontology expertise, we have developed a web service that provides a graphical user interface for creating metadata profiles [1]. It allows users to add suitable terms from existing terminologies together with constraints on permitted value nodes (e.g. expected data types, classes, or node shapes) and attribute cardinalities. Based on those profiles, metadata forms can be automatically generated for entering profile-compliant metadata [2] as well as search interfaces to explore profile-based metadata via faceted search [3].

In this workshop, participants will learn how to use the AIMS editor to create and extend metadata profiles and discuss the challenges of creating RDF-compliant metadata for research data. We will also present the new user interface prototype and conduct a hands-on user test. By gathering feedback from metadata experts, data stewards, and domain experts, we aim to improve the current user interface and discuss how RDF-based metadata can be embedded into everyday research workflows.

[1] NFDI4ING Metadata Profile Service. <https://profiles.nfdi4ing.de>

[2] Shacl-form. <https://github.com/ULB-Darmstadt/shacl-form>

[3] RDF-Store. <https://github.com/ULB-Darmstadt/rdf-store>

ONLY WORKSHOPS - Proposed interaction format

Other

Alternative Track

1. Harmonisation of Metadata: Closing Semantic Gaps

ONLY WORKSHOPS - Tentative audience

Data Stewards, Metadata Experts, Research Domain Experts, Metadata infrastructure providers

ONLY WORKSHOPS - Maximum number of participants

30

ONLY WORKSHOPS - Special technical requirements

Beamer to present and demonstrate, and if available, a flipchart or whiteboard to collect discussion results. Participants need to bring their own notebook for testing.

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Sitzung Einordnung: WORKSHOPS

Track Klassifizierung: HMC Conference 2026 - Pre-Conference Workshop: Pre-Conference Workshops