HMC Conference
> Metadata in Action, 28.-30.04.2026, Heidelberg

<HMC> HELMHOLTZ Metadata Collaboration

Beitrag ID: **25** Beitragskennung: **W10**   Typ: **Workshop (Extended)**

From ontology to ELN - Create your made-to-measure semantic metadata platform

This workshop will teach you how to use Herbie for setting up a bespoke semantic electronic laboratory notebook or research metadata platform which is customized to your concrete scientific needs.

We will start with an ontology of your scientific domain, pick a typical metadata record you might want to collect, and end with a set of (re)usable web forms for entering such a record in a fully semantically annotated way.

A typical and cumbersome approach would be creating spreadsheets and a set of transformation scripts to facilitate easy data entry for non-technical users. In the workshop you will get to know an alternative approach using Herbie: You will learn to write validation schemas in the standardized SHACL Shapes Constraint Language, upload these alongside your ontology to Herbie, and obtain a platform with easily usable web forms which automatically persist all entered data into a semantically annotated RDF knowledge graph.

After entering a few exemplary records, we will explore how you can query the created RDF knowledge graph using SPARQL to extract the data you need in downstream projects.

This workshop is intended for those who have an application ontology and want to start collecting (small) (meta)data that is properly semantically annotated. There are no restrictions on the domain. Herbie works best for data entered manually in an append-only approach, like it is typically done in laboratory notebooks.

We assume basic understanding of RDF and OWL, in particular you should be able to understand RDF graphs in the turtle format. You should bring your own computer and have Python and Node.js installed to be able to run some development tools.

ONLY WORKSHOPS - Proposed interaction format

Training

Alternative Track

ONLY WORKSHOPS - Tentative audience

data stewards, researchers with interest in technicalities of data management, developers

ONLY WORKSHOPS - Maximum number of participants

15

ONLY WORKSHOPS - Special technical requirements

projector, whiteboard

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Sitzung Einordnung: WORKSHOPS

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

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