Contribution ID: **75** Contribution code: **2-26** Type: **Poster**

Helmholtz Digitization Ontology (HDO): harmonized descriptions of digital assets and processes to support the integrity of the Helmholtz digital ecosystem

The Helmholtz digital ecosystem connects diverse scientific domains with differing (domain-specific) standards and best practices for handling metadata. Ensuring interoperability within such a system, e.g. of developed tools, offered services and circulated research data, requires a semantically harmonized, machine-actionable, and coherent understanding of the relevant concepts. Further, this needs to be aligned and harmonized with European and global initiatives to ensure an open and interoperable flow of data and information. Accordingly, the Helmholtz Metadata Collaboration develops the "Helmholtz Digitization Ontology"(HDO), which contains machine-actionable descriptions of digital assets and processes relevant to this ecosystem. Containing consistent and carefully curated semantics, it is intended to serve as an institutional reference thereby supporting the integrity of HMC developments internally as well as externally.
HDO is aligned to practices and conventions of the Open Biological and Biomedical Ontologies (OBO)1: we produce definitions in the OBO recommended genus-differentia form (i.e. for each term we define a Genus as well as its Differentia) that are coherent and precise. Class labels and definitions are developed bilingually in English and German and further contain information on synonymy, comments as well as micro-credits of contributions. The HDO is implemented based on the Ontology Development Kit (ODK)2 to ensure long-term development. The current development status can be followed in our public git repository3 –a 1st release of the HDO is planned in Q3/Q4 2022.
1 https://obofoundry.org/
2 https://arxiv.org/abs/2207.02056
3 https://gitlab.hzdr.de/hmc/hmc-public/hob/hdo

Please assign your poster to one of the following keywords.

Semantics

Please assign yourself (presenting author) to one of the stakeholders.

Data Infrastructure Provider

Please specify "other" (stakeholder)

In addition please add keywords.

Semantics, Ontology, Helmholtz, Harmonization, Interoperability

Primary authors: BUTTIGIEG, Pier Luigi (GEOMAR Helmholtz-Zentrum für Ozeanforschung, Kiel, Germany); FATHALLA, Said; GUENTHER, Gerrit (Helmholtz-Zentrum Berlin); HOFMANN, Volker; LEHMANN, Jos (German Cancer Research Center (Deutsches Krebsforschungszentrum - DKFZ), Heidelberg, Germany); STEINMEIER, Leon (Helmholtz Institute Freiberg); VIDEGAIN BARRANCO, Pedro (Forschungszentrum Jülich)

Co-author: LEMSTER, Christine (Geomar)

Presenters: BUTTIGIEG, Pier Luigi (GEOMAR Helmholtz-Zentrum für Ozeanforschung, Kiel, Germany); FATHALLA, Said; GUENTHER, Gerrit (Helmholtz-Zentrum Berlin); HOFMANN, Volker; LEHMANN, Jos (German Cancer Research Center (Deutsches Krebsforschungszentrum - DKFZ), Heidelberg, Germany); STEINMEIER, Leon (Helmholtz

Institute Freiberg); VIDEGAIN BARRANCO, Pedro (Forschungszentrum Jülich); LEMSTER, Christine (Geomar)

Session Classification: Postersession I

Track Classification: Postersession