Project MetaMap3: Metadata generation, enrichment and linkage across the three domains health, environment and earth observation: the MetaMap³ project

Thursday 6 October 2022 10:35 (15 minutes)

Digital metadata solutions for epidemiological cohorts are lacking since most schemas and standards in the Health domain are clinically oriented and cannot be directly transferred. In addition, the environment plays an increasingly important role for human health and efficient linkage with the multitude of environmental and earth observation data is crucial to quantify human exposures. There are however currently no harmonized metadata standards for the different areas, so they cannot be merged routinely. Therefore, we aim to compile machine-readable and interoperable metadata schemas for exemplary data of our three domains Health (HMGU), Earth & Environment (UFZ), and Aeronautics, Space & Transport (DLR).

We will present our data use cases (HMGU: GINI/LISA cohort; UFZ: drought monitor; DLR: land cover), their current metadata formats and our strategy for metadata compilation, enrichment and mapping. UFZ and DLR will converge their metadata to the standard ISO 19115: Geographic Metadata Information. For HMGU, we reviewed several metadata standards for health data (e.g. CDISC ODM, Snomed CT, HL7 FIHR) and started to upload our metadata to the NFDI4health StudyHub, an inventory of German health studies on COVID-19 which is based on the Maelstrom catalogue. In addition, we have developed a workflow to transform base cohort information in an ISO 19115 compliant manner. The respective metadata sheet increases accessibility to researchers from other domains without exposing sensitive information about participants'data.

The metadata mapping will be performed by location (spatial coverage) and date (time coverage) within GeoNetwork, a catalog application that we are currently setting up in a testing environment. We aim to have a server version ready by the end of the project that can be augmented with additional metadata from our domains, but also from other fields, to facilitate interdisciplinary research.

Please assign your poster to one of the following keywords.

In addition please add keywords.

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

Please specify "other" (stakeholder)

Primary author: WOLF, Kathrin (Helmholtz Zentrum München)

Presenter: WOLF, Kathrin (Helmholtz Zentrum München)

Session Classification: Session