Pattern-based design for modelling an ontology network in the water and health domains

Anna Sofia Lippolis, Giorgia Lodi, Andrea Giovanni Nuzzolese
Consiglio Nazionale delle Ricerche
Semantic Technology Laboratory
Global issues require open data models
Project and objective

Create the first European open distributed knowledge graph aimed at linking, using a common semantics, data on water consumption and quality with health parameters.
WATER AND HEALTH DATA CHALLENGES

- Missing data
- Closed data
- Heterogeneous data
- Knowledge FAIRification
Ontology network
Ontology network

- Modular
- Open to maximise re-use
- Multilingual
- Built according to the FAIR principles
Ontology network

Prefixes

- ispra-top: https://w3id.org/italia/env/onto/top/
- ispra-emf: https://w3id.org/italia/env/onto/inspire-mf/
- ispra-plc: https://w3id.org/italia/env/onto/place/
- hm: https://w3id.org/whow/onto/health-monitoring/
- hydro: https://w3id.org/whow/onto/hydrography/
- w-Ind: https://w3id.org/whow/onto/water-indicator/
- w-mon: https://w3id.org/whow/onto/water-monitoring/
- wh-mon: https://w3id.org/whow/onto/weather-monitoring/
Hydrography ontology

Prefixes:
- hydro: https://w3id.org/whow/onto/hydrography/
- ispra-emf: https://w3id.org/italia/env/onto/inspire-mf/
Water Monitoring ontology
Water Monitoring ontology

Water observations
Water Monitoring ontology

Conceptualization of observable properties and related objects
Water Indicator ontology
Weather Monitoring ontology
For more information

CONTACT US
info@whowproject.eu
whowproject.eu
@whowproject
WHOW Open Knowledge

TECHNICAL REPORTS

ONTOLOGY NETWORK

GITHUB REPOSITORY