

FAIR DO Applications: Achievements and Challenges

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RDA 20th Plenary Session, IG FAIR Digital Object Fabric Meeting

Implementations of the FAIR DO Concept

■ Two application cases in the field of Machine Learning (ML):

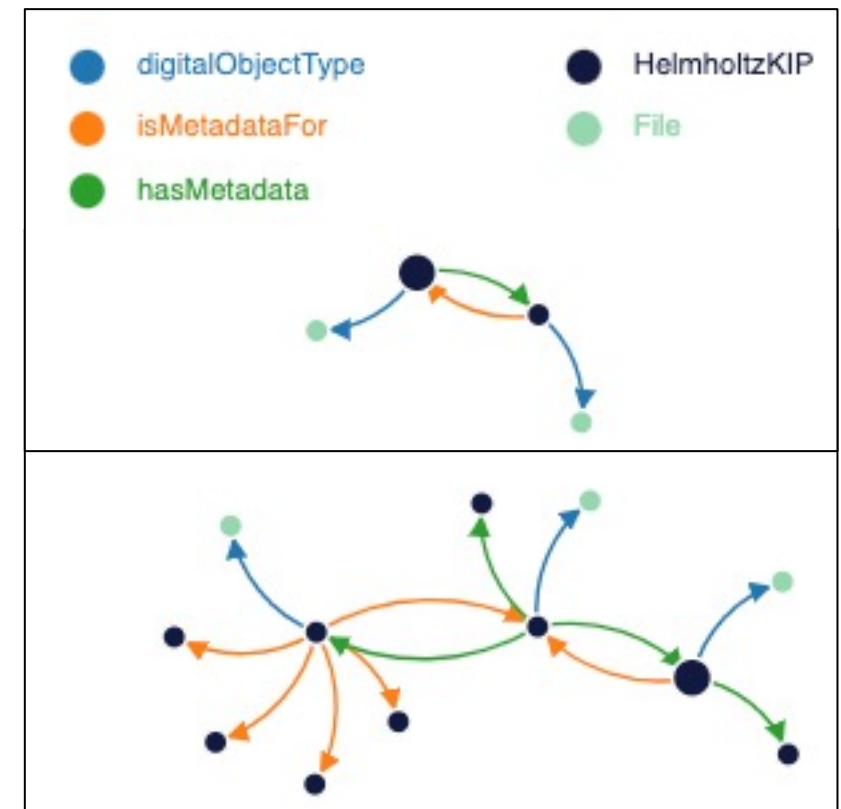
■ FAIR DOs for relabeling ML training data

<https://riojournal.com/article/94113/download/pdf/>

■ FAIR DOs for linking several ML data assets

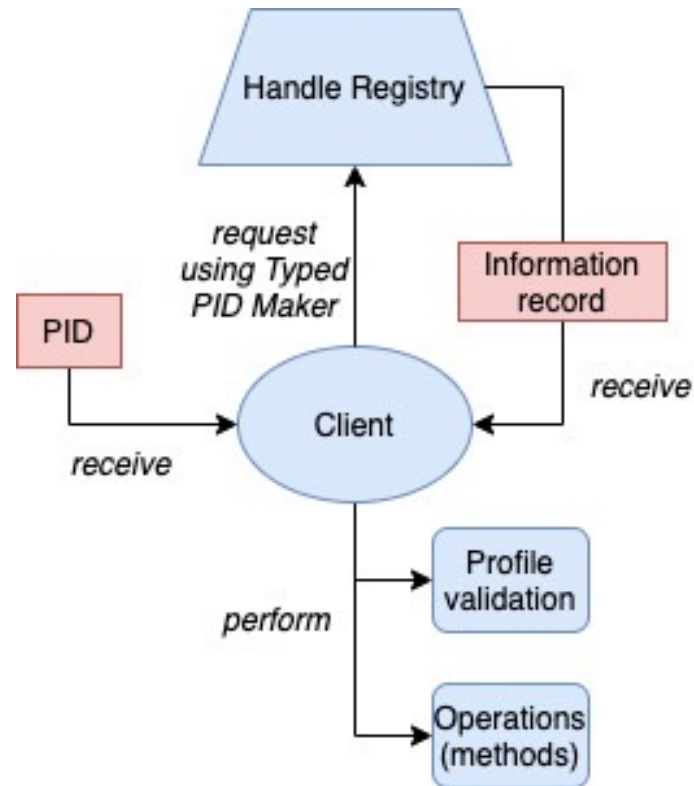
<https://zenodo.org/record/7022736#.ZBXkdOzMJGw>

Visualized with the FAIRDOScope: <https://kit-data-manager.github.io/fairdoscope/>



Implementation of a FAIR DO Client

For the application case of relabeling ML training data



- Enables machine-actionable decisions
- Use of the attribute values in the information record of FAIR DOs

Future Challenges

- Granularity of data representation by FAIR DOs
 - Data elements and data sets, where to draw the line, and what is most feasible?
 - Restricted by storage system?
- Granularity of attributes in the FAIR DO information record
 - Kernel information is general, but machine-actionable decisions often require more specific information
 - Making use of linked data?
 - Extending the information record content?
- Specifications for operations
 - How and where to define them?
 - How to implement them?