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FAIR Data Commons / Essential Services and Tools for Metadata Management Supporting Science

A sophisticated ensemble of services and tools enables high-level research data and research metadata management in science. On a technical level, research datasets need to be registered, preserved, and made interactively accessible using repositories that meet the specific requirements of scientists in terms of flexibility and performance. These requirements are fulfilled by the Base Repo and the MetaStore of the KIT Data Manager Framework.
In our data management architecture, data and metadata are represented as FAIR Digital Objects that are machine actionable. The Typed PID Maker and the FAIR Digital Object Lab provide support for the creation and management of data objects. Other tools enable editing of metadata documents, annotation of data and metadata, building collections of data objects, and creating controlled vocabularies.
Information systems such as the Metadata Standards Catalog and the Data Collections Explorer help researchers select domain-specific metadata standards and schemas and identify data collections of interest.
Infrastructure developers search the Catalog of Repository Systems for information on modern repository systems, and the FAIR Digital Object Cookbook for recipes for creating FAIR Digital Objects.
Existing knowledge about metadata management, services, tools, and information systems has been applied to create research data management architectures for a variety of fields, including digital humanities, materials science, biology, and nanoscience. For Scanning Electron Microscopy, Transmission Electron Microscopy and Magnetic Resonance Imaging, metadata schemas were developed in close cooperation with the domain specialists and incorporated in the research data management architectures.
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Please assign your poster to one of the following keywords.

Tools

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

Data Infrastructure Provider

Please specify "other" (stakeholder)

data producer, data user

In addition please add keywords.

FAIR, services, tools, metadata

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