Helmholtz Metadata Collaboration | Conference 2023

Tuesday 10 October 2023 - Thursday 12 October 2023 virtual, details will be shared with you after registration

Conference topics

The HMC Conference 2023 will have the following themes which will be the focus of our tracks. Presentation contributions will be asked to assign themselves to one of the following topics.

Assessing and monitoring the state of FAIR data

Assessing and monitoring the state of FAIR data across different domains, initiatives, or associations can take many shapes and forms. It enables individuals and institutions alike to identify concrete actions they can take to improve data handling in their environment by understanding what the current status is, and track the progress of those actions.

Understanding human actors in the FAIR data landscape

To achieve lasting change, we must understand the relationship our stakeholders have with FAIR data. Different methods can be applied to to investigate this relationship. This track focuses on the application and the results of such methods in order to better understand the human actor and its role on the road to FAIR.

Research data-centric understanding of the FAIR data landscape

Using metadata to make research data visible, is a prerequisite for data re-use. To improve it, we first need to understand where research data are found and to assess their FAIRness. This track focuses on solutions to assess and monitor this FAIRness and improvements derived from it.

Resource-centric understanding of the FAIR data landscape

Scientific infrastructure that produces data and the myriad of resources required to connect the ecosystem more broadly, such as identifying semantic artefacts, policies, licences, training material, and data formats among others, is essential on the road to FAIR. Understanding what is available, what is in use, and how it is connected to the rest of the ecosystem helps identifying actions to make it coherent.

Facilitating connectivity of research data

Facilitating connectivity of research data defines the technical and social features of a FAIR data space, ensuring that scientists can easily find and combine data from different scientific domains. This will lead to innovative, interdisciplinary, and more sustainable research.

Metadata annotation and management during and close to the research process

It is best to generate scientific metadata during or close to the research process - ideally in (semi-)automated ways. This is especially true when large amounts of instrument settings, procedural sequences, or other relevant measurements with temporal relation need to be documented but cannot easily be reconstructed in a posthoc fashion. Technical systems supporting data annotation, handling, provision and publication, and the stimulation of a change in scientific and metadata generation practices are needed to enable scientist to do so.

Technological solutions for findable and machine-readable metadata

By enriching existing metadata in a harmonised and machine-readable way we improve interoperability and machine actionability of data assets. Solutions like the FAIR digital object can be ways to go. In this track possible solutions are explored and presented.

Data interoperability through harmonised metadata and interoperable semantics

Interoperability requires knowing the state, structure and context of the data that are to be operated upon. This requires data to be described in-depth at the domain- and application-level, and to be using interoperable semantics. Activities towards supporting and developing semantically interoperable domain- and application-level metadata can be participating, consolidating and moderating relevant communities; active (co-)development of mid-, domain- and application-level semantics to be used for alignment; and providing services and tools to facilitate development of semantics.

Infrastructure and common practices for consolidating (meta)data

Both the number and diversity of data infrastructures as well as the diversity and volume of digital assets make it a challenge to find and keep track of the available research data. It is necessary to overcome data siloing to increase findability of data, information and knowledge. Knowledge graphs (KG) are an innovative technology to achieve this.

Transforming (meta)data recommendations into implementations

Transforming (meta)data recommendations into implementations involves stakeholders acting on different levels of the research data ecosystem. It aims to bridge different levels in knowledge, communication and technical capabilities between these stakeholders by offering practical advice and guidelines to implement community recommendations. These guidelines will be harmonised to ensure common practices across all actors and stakeholders.

Bringing recommendations closer to practice

Given pathways to follow from principles to action ensure that the data stakeholders can meet high-level recommendations and allow a harmonised implementation and application in practice. Unwrapping those recommendations and highlighting where they are relevant to the stakeholders is essential in bringing them closer to practice.

Enabling and incentivising the research community

Cultural change towards FAIR (meta-)data can only be achieved if the individual stakeholders are enabled and incentivised to meet established recommendations. This can be done through community processes, directed training, open events or general information material.

Poster session

A virtual poster session is planned. More details will follow.