Contribution ID: **28** Type: **Talk**

Join the new Earth System SciencesTerminology Service (ESS TS)

Wednesday 11 October 2023 11:50 (20 minutes)

Using terminologies can empower scientists and infrastructure providers to realise a machine-processable expression of the information contained in their research data and other academic outputs. In the academic world, the ambiguity of terms and the lack of appropriate keywords is tedious and annoying to both, scientists and machines. In addition, there is a lack of controlled vocabularies in many scientific fields. In some cases, the selection of the most appropriate terminology is also difficult. On the other hand, repositories try to promote the use of terminologies as they offer building blocks for (meta-)data schemata and data annotations and allow the persistent reference to concepts and terms by assigning identifiers like Uniform Resource Identifiers (URIs or handles such as Digital Object identifiers (DOIs).
The BITS project (BluePrints for the Integration of Terminology Services in Earth System Sciences) is trying to find solutions to these problems. As a first step, BITS builds **a Terminology Service (TS) for subfields of climate science and geodiversity collections** (Earth's diversity of i.a. rocks, fossils, soils, sediments). For this, the project leverages the existing Terminology Service of the TIB –Leibniz Information Centre for Science and Technology, which currently features more than 160 ontologies, 1.1 million terms, and over 22,000 properties from a range of domains such as architecture, chemistry, computer science, mathematics, and physics. The TS will then be integrated into the two different data repositories of the German Climate Computing Center (DKRZ) and the Senckenberg - Leibniz Institution for Biodiversity and Earth System Research (SGN). In close collaboration with NFDI4Earth and the wider ESS community and TS4NFDI as the NFDI base service project for Terminology Services, the experience gained in building the TS and integrating it into the repositories at DKRZ and SGN will be used to create blueprints that can later be used to connect other Earth System Science repositories to the TS.
This is why we want to join forces with the ESS community. Tell us:

- What are your needs for terminology?
- What do you expect from such a Terminology Service?
- Which terminologies should be part of this TS?
- To use this TS, what tools do you need?
- How should this TS work together with other collections and TSs, e.g. for Biological Data?
- Which further semantic artefacts (like semantic mappings) are of interest for such a service?

Join us in building and transferring into your research community the ESS TS so that it can serve as a valuable resource for researchers, students, professionals, and developers, providing them with accurate and consistent terminology to enhance their work, improve communication and advance knowledge in their respective fields.
Want to know more? Get in touch at Info.BITS@tib.eu.

Please assign your contribution to one of the following topics

Enabling and incentivising the research community

Please specify "other" (stakeholder)

In addition please add keywords.

Semantic Artefacts, Terminology Service, Earth System Sciences, BITS

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

Data professionals who provide and maintain data infrastructure

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Session Classification: Parallel Track 1

Track Classification: Facilitating connectivity of research data: Data interoperability through harmonised metadata and interoperable semantics