



Enriching the EnvThes controlled vocabulary via aggregated semantic concepts

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Semantic resources such as LTER's EnvThes thesaurus are increasingly used for the annotation of research data with controlled domain specific terminology. Dedicated repositories such as NCBO BioPortal host growing numbers of such resources in order to make them discoverable and searchable, thus fostering their re-use and interoperability between annotated datasets. In recent years, a number of such repositories have emerged, usually covering resources from a specific domain such as Bio-Medicine or Agronomy. In order to provide facilities for cross-domain semantic annotation it is desirable to have central access to these vast resources. In the context of developing the common EUDAT data infrastructures a Semantic Lookup Service prototype has been designed for this purpose. Described in [Goldfarb & Le Franc, 2017], it currently aggregates the content of three semantic repositories in order to provide a cross-domain central search index to them.

Besides semantic annotation, the index supports the alignment of own semantic resources with existing terminology. This both contributes to interoperability via newly discovered equivalence links and provides editors with useful sources for re-use within their own resources. This presentation will focus on such a use-case in which matching terms aggregated from the repositories BioPortal, AgroPortal and EBI-OLS were aligned with LTER's EnvThes thesaurus in order to re-use their term definitions for EnvThes terms without equivalent information. Evaluated by domain experts, the identified matches suggest that this approach fulfils its purpose and moreover provides a useful indicator for the overlap of EnvThes with existing semantic resources.

Reference:

[Goldfarb & Le Franc, 2017] Doron Goldfarb and Yann Le Franc. Enhancing the Discoverability and Interoperability of Multi-Disciplinary Semantic Repositories. In: Alsayed Algergawy, Naouel Karam, Friederike Klan, Clement Jonquet: Proceedings of the 2nd International Workshop on Semantics for Biodiversity co-located with 16th International Semantic Web Conference (ISWC 2017), Vienna, Austria, October 22nd, 2017. CEUR Workshop Proceedings 1933