Multilingual vocabulary mapping in ARIADNEplus

Mapping (or alignment) of vocabularies is a major issue for KOS research and development. It can offer benefits for both recall and precision in retrieval and is critical for multilingual collections. Established standard approaches and representations exist (ISO25964, SKOS) along with reviews of previous work and methods that can be adopted (Zeng & Chan 2004; Binding & Tudhope 2016).

This presentation discusses and reflects on recent experience in multilingual vocabulary mapping for the ARIADNEplus H2020 project on archaeological research infrastructure. This builds on work for the preceding FP7 infrastructure project ARIADNE, which employed a hub vocabulary based on the Getty Art and Architecture Thesaurus (AAT). In all, some 6,400 local terms from 27 vocabularies used by 12 project partners were mapped to the AAT for ARIADNE. Interactive mapping tools were developed along with an item level integration demonstrator to show the possibilities resulting of multilingual retrieval over datasets and archaeological reports (Binding et al 2018).

For ARIADNEplus a new interactive mapping tool has been developed that is more flexible in the import formats and which can produce a variety of standard semantic representations. It operates over the Linked Open Data expression of the AAT. The presentation will describe the tool and report on initial experience with. It will reflect on the issues and challenges involved, including the initial user guidelines for making mappings and the issues in different mapping strategies.

References

ARIADNE FP7 project: Advanced Research Infrastructure for Archaeological Dataset Networking in Europe, http://www.ariadne-infrastructure.eu/

Binding C, Tudhope D. 2016. Improving Interoperability using Vocabulary Linked Data. International Journal on Digital Libraries, 17(1), 5-21. Springer. https://doi.org/10.1007/s00799-015-0166-y

Binding C, Tudhope D, Vlachidis A. 2018. A study of semantic integration across archaeological data and reports in different languages. Journal of Information Science, 45(3), 364-386. https://doi.org/10.1177/0165551518789874

Getty Vocabularies as Linked Open Data, http://www.getty.edu/research/tools/vocabularies/lod/

ISO 25964-2:2013 Information and documentation - Thesauri and interoperability with other vocabularies -- Part 2: Interoperability with other vocabularies. (2013) http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=53658

SKOS mapping relationships, http://www.w3.org/TR/skos-reference/#L4138

Zeng M., Chan L.: Trends and issues in establishing interoperability among knowledge organization systems. Journal of American Society for Information Science and Technology, 55(5): pp. 377-395. (2004)