CIDOC 2018 Heraklion – Full-length Paper

Title**: "Using LIDO for evolving object documentation into CIDOC CRM"**

Conference topics:

- Documentation and interdisciplinarity
- Object documentation and analytical resources
- Methods of knowledge verification and documentation of knowledge revision

Abstract

Over the last years, many projects and institutions have worked on transforming object documentation from existing cataloguing systems into a CIDOC CRM compliant graph representation expressed in RDF. There were also various attempts to provide a generally valid path for the transfer of data from LIDO, CIDOC's recommended XML Schema for metadata harvesting, into representations suitable for the Semantic Web. They all face the challenge that a detailed mapping, which fully exploits the CRM's expressiveness, requires semantic assumptions that may not always turn out to be valid. Broad mappings on the other hand fail to leverage the potential of Semantic Web technologies.

From the authors' experiences in developing such transformations for their own object documentation as well as for LIDO based aggregations, balancing dependencies and conditions resulting from the data analysis in a mapping is a major challenge. Another issue is the need for creating RDF resources and associated identifiers for what is typically described as simple text in a record of the source system.

In this paper, we present a method for using LIDO combined with an associated terminology as a means to evolve existing object documentation into CRM-based RDF representations. By clearly distinguishing between controlled vocabulary and ontology, it is possible to transform object data relatively easily into a minimized, though efficient structure using the CRM ontology. This structure will open up for the whole world of Semantic Web technologies to be used for further semantic refinement and data quality analysis through exploiting the underlying controlled vocabularies. The LIDO XML Schema together with its recommended LIDO Terminology provide useful features that help bridging the gap between current object documentation and its representation in CIDOC CRM's encoding in RDFS.

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