

NeMO - NeDiMAH Methods Ontology

CAA2015: Paper on ‘Documenting and reasoning about
research on ancient Corinthia using the NeDiMAH
Methods Ontology (NeMO)’

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Analyzing and modeling research processes is a major component of the endeavor of understanding and charting the digital humanities practice, which broadly involves content, tools and methods. The need for a formal model of scholarly research activity was identified as early as the preparatory phase of DARIAH. An evidence-based model based on grounded theory analysis of researcher interviews was proposed, subsequently validated, and extended in EHRI (Benardou et al., 2013). This work is now taken forward in NeDiMAH, through development of the NeDiMAH Methods Ontology (NeMO). NeMO is CIDOC CRM - compliant, and represents explicitly dimensions of agency (actors and goals), process (activities and methods) and resources (information resources, tools, concepts) in scholarly research. It incorporates existing relevant taxonomies of scholarly methods and tools (TaDIRAH, Oxford ICT, DHCommons, CCC-IULA-UPF and DiRT) through appropriate mappings a semantic backbone of NeMO concepts. It thus enables integration of different perspectives, vocabularies and documentation on scholarly methods and practice (Hughes et al. forthcoming).

This paper introduces NeMO, applies it on the documentation of scholarly research conducted in the course of a synthetic study of the social and economic history of Classical Corinthia (Benardou 2007), and discusses how NeMO can support both a structured documentation of, and reasoning about, archaeological and historical research practice. The case study concerns the functions of the urban centre of Corinth as part of its surrounding countryside. It addresses Corinthian society throughout the 5th century BC. On the basis of geographical and temporal parameters, it examines settlement patterns and networks, and relates them with cultural and economic factors. Using NeMO, we demonstrate how research activities of specific types, organized in methodological steps, use, produce and curate specific information resources as they are carried out with specific methods and tools. Our study highlights the importance of overall goals and research questions in shaping scholarly process. Generation of semantic paths connecting concepts in NeMO enables support for associative queries and reasoning about the research activities, methods followed, and their context. Indexing terms are drawn from taxonomies incorporated in NeMO. This work contributes to methodological reflexivity, better understanding of the research process, and improved communication on research methods in archaeology. Future work includes the streamlining of interaction processes using NeMO and semantic publishing of related information.

References:

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