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Title: A retrospective on CLIO: legacy, lessons learned and perspectives

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Abstract

During a 1990 CIDOC meeting in Athens the idea was born of using a semantic network – based framework for the purposes of museum documentation. Two years later, CLIO, a pioneering system designed and built at the Institute of Computer Science, FORTH, using the Semantic Index System implementation of the Telos knowledge representation language was installed at the Benaki Museum, heavily involved in requirements definition. At that early time, CLIO allowed extremely dense linking of information, access by unlimited chained references, expression of abstract properties and various ways of joint temporal and spatial assignment, as well as the extension and modification of the data schema by the users, thus supporting the easy adaptation of the system to the field of work and the evolution of knowledge". The significance of the CLIO system lies in that it explicitly acknowledged and addressed the evolving, incomplete and conflicting nature of knowledge, the variety

of required documentation structures, and the need for typed associations, as opposed to opaque references, in order to support reasoning over documentation data. It was a precursor to current systems employing Semantic Web technologies. Most importantly, though, it explicitly introduced an ontology and served as the seed from which CIDOC CRM grew.

In this retrospective we mostly discuss the path taken by conceptual and technical developments, the main issues and hurdles encountered in terms of documentation and data curation practices, cognitive overhead, information visualization and information access, and the current challenges in building ontology-driven, semantic-network museum information systems.