## NUUA Short Course – July 9 & 11, 2024 "Foundations of the Semantic Web: Querying and Modelling Ontoterminologies (SPARQL & TEDI)"

Our digitally-enabled world is made up of heterogeneous and complex systems, which have to communicate and exchange information. Enriching the existing Web with semantics, i.e. meaning for humans and machines, represents the next major evolution in connecting and representing information. It enables data to be linked from a source to any other source and to be understood by computers so that they can understand, interpret information. about This facilitates and reason greater interoperability, more precise querying, and the development of intelligent, automated applications. Ontoterminology building is at the heart of the effort to enrich web data with semantics.



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To illustrate the potential of Ontoterminology for the Digital Humanities and Cultural Heritage, the chosen domain of application is the study of ancient Chinese and Greek philosophers.

<u>Methodology</u>: This concise six-hour course (2 X 3h) provides students with a comprehensive understanding of Semantic Web Technologies, blending theory and practice. It covers essential principles, methods, and tools for modeling interoperable datasets crucial for AI systems.

By the end of this course participants will learn to create, manipulate and query semantic data structures, enabling machines to effectively comprehend, interpret, and reason with web-based information.

<u>Key areas</u>: Ontology, Terminology, Knowledge Graph, Semantic Web Digital Humanities & Cultural Heritage <u>Standards</u>:

- ISO Standards on Terminology: ISO 1087, ISO 704
- W3C Standards on Knowledge Graph, Ontology and Terminology: SPARQL, RDF, RDFS, OWL

Platforms & Tools: Querying Knowledge (RDF) Graph: SPARQL endpoint

Ontoterminology building: Tedi (ontoTerminology editor)

### Instructors:



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- BA student of Classical Studies at Department of Philology (University of Crete)
- Researcher and Modeler to the RDF/OWL dataset on Ancient Chinese and Greek Philosophers (KELKIP and TALOS)

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Centre of Greek & Chinese Ancient Civilizations

