Semantic Web

Carlo Meghini

Istituto di Scienza e Tecnologie della Informazione
Consiglio Nazionale delle Ricerche – Pisa

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Today's Lecture: Conclusions

The Casa fo the Digital Humanities

Ontologies use the language of science, i.e. logic (and, or, not, every, some, implies, etc.) and mathematics (at least, no more than, transitive, symmetric, reflexive, etc.), to provide rigorous, unambiguous definitions of the terms of a universe of discourse.

They are an essential element in communication, as they help to say what can be said clearly.

Ontologies help avoiding the information silo problem, created by data models.

Due to their independence from any operational model, ontologies are also the ideal place where the humanist and the IT technologist can meet and collaborate to realize DH systems.

The language spoken by an ontology is neither Latin nor Java, but rather what they have in common: logic, a most natural candidate to play the role of *lingua franca* for the communication between the humanist scholar and the IT scholar.

DH deals with the products of human culture, such as text, document, object, artifact, image, sound etc., and of the relationships that they bear to each other and to humans and their deeds.

The formalization of these entities is on-going since many years: *e.g.*, the first TEI guidelines were out in 1994, early this year version 3.3.0 has been released.

A variety of standards exists for all the other entities.

Not all of them take the form of ontologies, so a bit of re-styling might be necessary here and there, but the basic structures are there, therefore as the DHs progress DH domain ontologies are expected to blossom in a natural, bottom-up way.

The process will never end, because new forms of expressions are the rule rather than the exception. And meaning finds its most natural expression in an ontology.

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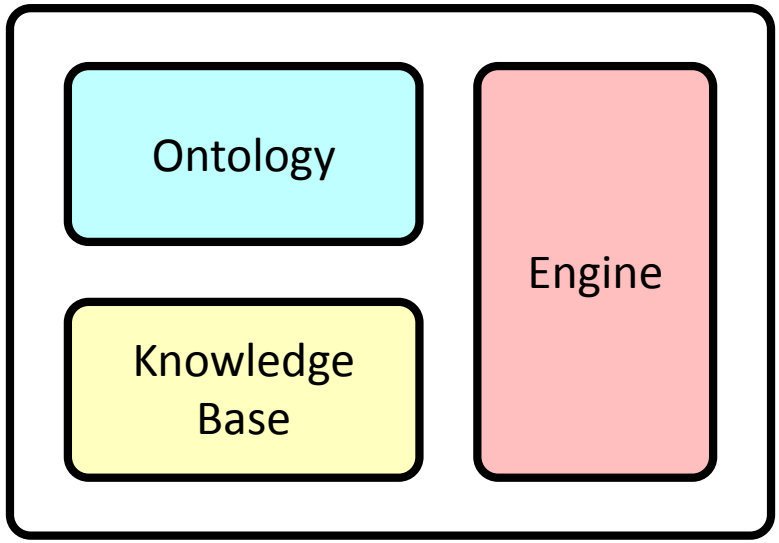
An ontology-based view of a DH system

At the heart of the system there are two information structures:

- an ontology
- a knowledge base

These structures are used by a standardized piece of code, the Engine, to carry out the main tasks of the system.



To know more: Susan Hockey Lecture 2018:
https://blogs.ucl.ac.uk/dh/2018/06/22/hockey2018/

An ontology-based view can help the DH to have a more effective view of what computers can do for the Humanities, also thanks to their strong support for interdisciplinarity.

The Web can help the DH to implement this view by offering:

- languages for expressing and using ontologies and KBs (OWL, RDF, SPARQL)
- guidelines for using those languages (Linked Data)
- an infrastructure for sharing ontologies and KBs (the web)