

What Ontological Engineering Can Do for Solving Real-World Problems

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Abstract. Ontological engineering works as a theory of content and/or content technology. It provides us with conceptual tools for analyzing problems in a right way by which we mean analysis of underlying background of the problems as well as their essential properties to obtain more general and useful solutions. It also suggests that we should investigate the problems as deeply as possible like philosophers to reveal essential and intrinsic characteristics hidden in the superficial phenomena/appearance. Knowledge is necessarily something about existing entities and their relations, and ontology is an investigation of being, and hence ontology contributes to facilitation of our knowledge about the world in an essential manner.

There exist a lot of problems to be solved in the real world. People tend to solve them immediately after they realize needs to solve them. One of the issues here is that necessary consideration about the nature of those problems is often skipped to get solutions quickly, which sometimes leads to ad-hoc solutions and/or non-optimal solutions. This is why ontological engineering can make a reasonable contribution to improving such situations.

In my talk, after a brief introduction to ontological engineering, I explain technological aspects of ontological engineering referring to my experiences. One of the important conceptual techniques is separation of what and how in procedures/algorithms. Then, I show you a couple of concrete examples of deployment of such conceptual tools in several domains.

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