The Inevitable Ontological Commitment or: How I Learned to Stop Worrying and Love Ontology

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In recent years, there has been a growing interest in the application of Foundational Ontologies, i.e., formal ontological theories in the philosophical sense, for providing real-world semantics for conceptual modeling languages, and theoretically sound foundations and methodological guidelines for evaluating and improving the individual models produced using these languages.

The lack of properly developed ontological foundations has a clear impact for conceptual modeling and in a way that is perceived by practitioners. For instance, solid empirical evidence shows that the perception of ontological deficiencies in a conceptual modeling language has a negative impact on the perception of usefulness and usability of these languages. In this talk, I will discuss the formal notion of *ontological commitment* and its relation to real-world semantics, language metamodel and visual concrete syntax. Moreover, I will discuss how a particular ontology-based approach for language analysis and (re)design has been employed over the years to address recurrent problems in the literature of conceptual modeling. These problems range from issues dealing with fundamental modeling aspects (e.g., object, events, dependent objects, taxonomic structures, intrinsic and relational properties, property measurement spaces, part-whole relations) to complex aspects of representing social reality (e.g., goals, services, capabilities, organizational structures, social roles and software).