Ontologies for Symbolic Modeling in Practice?

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When approaching a framework for a field like that of *ontologies*, it is certainly necessary to make explicit the relation with such areas as object-oriented systems, database systems and knowledge-based systems. It has been my view for quite a long time that many fundamental ideas are common in those areas, and I think they share them with the field of ontologies as well. So, I tried to raise the awareness of such commonalties inside the object-oriented community [Kai94a]. In a special issue in IJHCS [Kai94b], I collected several papers illustrating mutual influences among the fields of object-oriented development, artificial intelligence and human-computer interaction. A more recent special section in CACM [Kai99] covered the wider area of symbolic modeling in practice. Modeling is a complex activity of abstracting information and knowledge from a given domain, in order to achieve a model that contains the essentials from the perspective of the modelers and their given goals. While this definition includes building numeric models, for instance, the focus was on models in terms of symbols, and so this was called "symbolic modeling". Are ontologies useful for symbolic modeling in practice?

A major issue in the practice of software engineering is *reuse*. Recently, we argued that it should already start with the requirements, which is feasible in application families of systems [Man99]. Can reusable ontologies help to achieve further improvements in software development?

References

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