GUEST EDITOR'S NOTE

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This special issue of Fundamente Informaticae contains a number of papers representing various issues of current research on logical formalizations of common-sense reasoning.

An inherent feature of such modes of reasoning is its nonmonotonicity, that is property that larger collections of formulas ("initial assumptions") does not necessarily lead to larger collections of common-sense consequences. Due to pioneering work of Clark, McCarthy, McDermott, Moore, Reiter and Touretzky a number of seemingly different such modes of reasoning appeared in the literature. Only presently some synthesis are provided. We presently know what are similarities and differences between circumscription, autoepistemic logic, default logic etc. One needs to realize that the subject is still far from completion and "definite presentation". It is unclear at this point if there exists a universal mode of nonmonotonic reasoning (sort of a "general nonmonotonic logic of first order") and the predicate case is still almost untouched. It is not clear if many-valued logic play an important role in this reasoning, or are accidental. It is not clear what date structures are associated with nonmonotonic logics and what are the best algorithms to handle them.

The present special issue touches on many of these and other questions related to logic of common-sense reasoning. It is fair to say that it is a companion to another issue published recently in "Fundamente Informaticae" - that of logic programming. It appears that both subjects merge and in this process, which also involves problems of logic of databases, a universal theory emerges.

We sincerely hope that the reader will find interesting this small collection of papers dealing with formalization of common-sense reasoning and, as a result will see that beyond of logic as it is usually taught and applied lurks a larger domain, that of nonmonotonic logics, worth both of studies and research.

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