Nicole

International Workshop on Formal Ontology

in Conceptual Analysis and Knowledge Representation

17-19 March 1993
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Edited by N. Guarino and R. Poli
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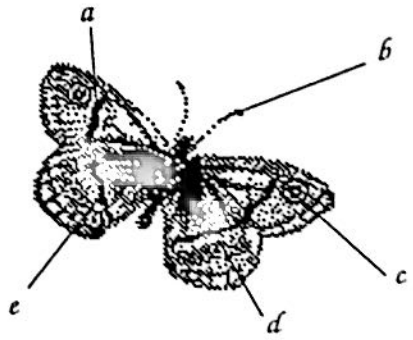

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Preface

Problems of conceptual analysis and of the acquisition of commonsense knowledge still represent a major bottleneck in the development of information systems. In mature areas like databases as well as in more recent fields like knowledge engineering, the rigorous analysis of the domain and the choice among the available representation primitives are difficult tasks, appearing to rest on a mixture of introspection (as to what is intuitively right) and technical realization of the resulting theory. Existing knowledge acquisition tools tend to be oriented around applications, and therefore a new knowledge base must usually be constructed from scratch when a new problem is undertaken.

Due to the high costs of this process, recent initiatives like DARPA's Knowledge Sharing Efforts have underlined the opportunity of increasing the quality of formalized bodies of knowledge in such a way that it is possible to share and reuse at least parts of them for a variety of different purposes. The development of so-called generic ontologies plays an essential role in this connection.

The *International Workshop on Formal Ontology in Conceptual Analysis and Knowledge Representation,* to be held in Padova on March 17-19, 1993, will focus on the methods used to develop and analyse such ontologies, with a special emphasis on *formal ontology*, recently defined by Cocchiarella as "the systematic, formal, axiomatic development of the logic of all forms and modes of being". The idea is to bring together philosophers belonging to the tradition of Brentano and Husserl with people working on principles of knowledge representation and lexical semantics, as well as with knowledge engineers having strong practical motivations.

The material compiled here consists of most of the contributions of the participants and invited speakers, listed in alphabetical order of the authors. In character with the informal nature of the "work"shop, these papers reflect personal interests, work in progress, or summaries of research results rather than being fully elaborated articles. This workshop material, in the form of an internal report, is being mailed to all participants in order to stimulate exchange of comments and proposals for the discussion sessions *before* the workshop. The mailing list is included at the end of this volume.

We would like to thank the members of the program committee for their contribution to the organizing work, our affiliated organizations for their support, and finally all participants for their active engagement in the workshop.

January, 1993

Nicola Guarino and Roberto Poli

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Barry Smith

Representing attributes, roles, and nondetachable parts
John Sowa

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