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Preface

The 12th Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2006) was held in Varna on the Black Sea coast during September, 12–15, 2006. The AIMSA conference series has provided a biennial forum for the presentation of artificial intelligence research and development since 1984. The conference, which is held in Bulgaria, covers the full range of topics in artificial intelligence and related disciplines and provides an ideal forum for international scientific exchange between Central/Eastern Europe and the rest of the world. The 2006 edition perpetuates this tradition.

For AIMSA 2006, we wanted to place special emphasis on a specific phenomenon that affects all areas of artificial intelligence: the application and leverage of artificial intelligence technology in the context of human collaboration which today is mediated by the Web. Artificial intelligence is used to support human communication in a wide variety of ways. For example, reasoning over the Semantic Web, analyzing relationships between people, enhancing the user experience by learning from their behavior, applying natural language to large multilingual corpora, planning a combination of Web services, and adapting and personalizing educational material. A plethora of artificial intelligence techniques are amenable to facilitating communication on the Web. Moreover, these techniques are not deployed in isolation but are typically combined with results from other disciplines such as the social sciences, discrete mathematics, network computing, or cryptography.

However, as its name indicates the conference is also dedicated to artificial intelligence in its entirety. As such, AIMSA remains a generalist artificial intelligence conference with tracks on constraint satisfaction, agents, ontology, decision support, natural language processing and machine learning. The Web effect has not created its own new sub-discipline of artificial intelligence but rather affects all of its sub-areas.

Eighty-one interesting papers were submitted to the conference coming from 27 different countries representing 5 continents. Each paper was reviewed by more than three independent reviewers on average. The Program Committee selected for the conference program 29 contributions out of which 28 are included in the current volume. We would like to thank the AIMSA Program Committee and the additional reviewers for their hard work in assessing paper quality.

In addition to the selected papers, the AIMSA conference featured two workshops on "Natural Language Processing for Metadata Extraction" and "Semantic Web and Knowledge Technologies Applications." AIMSA 2006 had two invited speakers who, signs of the time, addressed intelligent technologies in the large. Enrico Motta from the Open University considered the challenges raised by dealing with increasing amount of semantic markup on the Web and Fabio Ciravegna

from the University of Sheffield discussed those of acquiring and sharing knowledge in large organizations with reports from large-scale case studies.

July 2006

Jérôme Euzenat
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