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Artificial Intelligence: Methodology, Systems, and Applications

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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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Table of Contents

Invited Talks

- Exploiting Large-Scale Semantics on the Web 1
Enrico Motta
- Acquiring and Sharing Knowledge in Large Organizations: Issues,
Requirements and Methodologies 2
Fabio Ciravegna

Agents

- Property Based Coordination 3
Mahdi Zargayouna, Julien Saunier Trassy, Flavien Balbo
- A Formal General Setting for Dialogue Protocols 13
Leila Amgoud, Sihem Belabbès, Henri Prade
- OCC's Emotions: A Formalization in a BDI Logic 24
Carole Adam, Benoit Gaudou, Andreas Herzig, Dominique Longin

Constraints and Optimization

- A Boolean Encoding Including SAT and n-ary CSPs 33
Lionel Paris, Belaïd Benhamou, Pierre Siegel
- A Constructive Hybrid Algorithm for Crew Pairing Optimization 45
Broderick Crawford, Carlos Castro, Eric Monfroy
- Using Local Search for Guiding Enumeration in Constraint Solving 56
Eric Monfroy, Carlos Castro, Broderick Crawford

User Concerns

- Study on Integrating Semantic Applications with Magpie 66
Martin Dzbor, Enrico Motta
- N-Gram Feature Selection for Authorship Identification 77
John Houvardas, Efstathios Stamatatos

Incorporating Privacy Concerns in Data Mining on Distributed Data 87
Huizhang Shen, Jidi Zhao, Ruipu Yao

Decision Support

Multiagent Approach for the Representation of Information in a
Decision Support System 98
Fahem Kebair, Frédéric Serin

Flexible Decision Making in Web Services Negotiation 108
Yonglei Yao, Fangchun Yang, Sen Su

On a Unified Framework for Sampling With and Without Replacement
in Decision Tree Ensembles 118
*José María Martínez-Otzeta, Basilio Sierra, Elena Lazkano,
Ekaitz Jauregi*

Models and Ontologies

Spatio-temporal Proximities for Multimedia Document Adaptation 128
Sébastien Laborie

Deep into Color Names: Matching Color Descriptions by Their Fuzzy
Semantics 138
Haiping Zhu, Huajie Zhang, Yong Yu

Developing an Argumentation Ontology for Mailing Lists 150
Colin Fraser, Harry Halpin, Kavita E. Thomas

Machine Learning

Clustering Approach Using Belief Function Theory 162
Sarra Ben Hariz, Zied Elouedi, Khaled Mellouli

Machine Learning for Spoken Dialogue Management: An Experiment
with Speech-Based Database Querying 172
Olivier Pietquin

Exploring an Unknown Environment with an Intelligent Virtual Agent . . . 181
In-Cheol Kim

Ontology Manipulation

Case-Based Reasoning Within Semantic Web Technologies 190
Mathieu d'Aquin, Jean Lieber, Amedeo Napoli

A Proposal for Annotation, Semantic Similarity and Classification of Textual Documents	201
<i>Emmanuel Nauer, Amedeo Napoli</i>	
Cooking an Ontology	213
<i>Ricardo Ribeiro, Fernando Batista, Joana Paulo Pardal, Nuno J. Mamede, H. Sofia Pinto</i>	

Natural Language Processing

Methodology for Bootstrapping Relation Extraction for the Semantic Web	222
<i>Maria Tchalakova, Borislav Popov, Milena Yankova</i>	
Using Verbs to Characterize Noun-Noun Relations	233
<i>Preslav Nakov, Marti Hearst</i>	

Applications

BEATCA: Map-Based Intelligent Navigation in WWW	245
<i>Mieczysław A. Kłopotek, Krzysztof Ciesielski, Dariusz Czerski, Michał Dramiński, Sławomir T. Wierzchoń</i>	
Model-Based Monitoring and Diagnosis Chip for Embedded Systems	255
<i>Satoshi Hiratsuka, Hsin-Hung Lu, Akira Fusaoka</i>	
A Knowledge-Based Approach for Automatic Generation of Summaries of Behavior	265
<i>Martin Molina, Victor Flores</i>	
INFRAWEBBS Designer – A Graphical Tool for Designing Semantic Web Services	275
<i>Gennady Agre</i>	
Author Index	291