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Autonomous Agents and Multiagent Systems

AAMAS 2016 Workshops, *Best Papers* Singapore, Singapore, May 9–10, 2016 Revised Selected Papers



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ISSN 0302-9743 ISSN 1611-3349 (electronic) Lecture Notes in Artificial Intelligence ISBN 978-3-319-46881-5 ISBN 978-3-319-46882-2 (eBook) DOI 10.1007/978-3-319-46882-2

Library of Congress Control Number: 2016952511

LNCS Sublibrary: SL7 - Artificial Intelligence

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Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

AAMAS is the leading scientific conference for research in autonomous agents and multiagent systems, which is annually organized by the non-profit organisation the International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS). The AAMAS conference series was initiated in 2002 by merging three highly respected meetings: the International Conference on Multi-Agent Systems (ICMAS); the International Workshop on Agent Theories, Architectures, and Languages (ATAL); and the International Conference on Autonomous Agents (AA).

Besides the main program, AAMAS hosts a number of workshops, which aim at stimulating and facilitating discussion, interaction, and comparison of approaches, methods, and ideas related to specific topics, both theoretical and applied, in the general area of autonomous agents and multiagent systems. The AAMAS workshops provide an informal setting where participants have the opportunity to discuss specific technical topics in an atmosphere that fosters the active exchange of ideas.

This book compiles the best papers of the AAMAS 2016 workshops. In total, AAMAS 2016 ran 16 workshops. To select the best papers, the organizers of each workshop were asked to nominate two papers from their workshop and send those papers, along with the reviews they received during their workshop's review process, to the AAMAS 2016 workshop co-chairs. The AAMAS 2016 workshop co-chairs then studied each paper carefully, in order to assess its quality and whether it was suitable to be selected for this book. One paper was selected from each workshop, although not all workshops were able to contribute. The result is a compilation of 11 papers selected from 11 workshops, which we list below.

- The 18th International Workshop on Trust in Agent Societies (Trust 2016)
- The 7th International Workshop on Optimization in Multiagent Systems (OptMAS 2016)
- The Third International Workshop on Exploring Beyond the Worst Case in Computational Social Choice (EXPLORE 2016)
- The Second International Workshop on Issues with Deployment of Emerging Agent-Based Systems (IDEAS 2016)
- The 17th International Workshop on Multi-Agent-Based Simulation (MABS 2016)
- The 4th International Workshop on Engineering Multiagent Systems (EMAS 2016)
- The 14th International Workshop on Adaptive Learning Agents (ALA 2016)
- The 9th International Workshop on Agent-Based Complex Automated Negotiations (ACAN 2016)
- The First International Workshop on Agent-Based Modelling of Urban Systems (ABMUS 2016)
- The 21st International Workshop on Coordination, Organization, Institutions and Norms in Agent Systems (COIN 2016), with a special joint session with the 7th International Workshop on Collaborative Agents Research and Development: CARE for Digital Education (CARE 2016)

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 The 15th International Workshop on Emergent Intelligence on Networked Agents (WEIN 2016)

We note that a similar process was carried out to select the most visionary papers of the AAMAS 2016 workshops. While best papers follow the style of more traditional papers, visionary papers are papers with novel ideas that propose a change in the way research is currently carried out. The selected visionary papers may be found in the Springer LNAI 10003 book.

Revised and selected papers of the AAMAS workshops have been published in the past (see Springer's LNAI Vol. 7068 of the AAMAS 2011 workshops). Despite not publishing such books regularly for the AAMAS workshops, there has been a clear and strong interest on other occasions. For instance, publishing the "best of the rest" AAMAS workshops volume has been discussed with Prof. Michael Luck, who was enthusiastic concerning AAMAS 2014 in Paris. This book, along with Springer's LNAI 10003 volume, aims at presenting the best and most visionary papers of the AAMAS 2016 workshops. The aim of publishing these books is essentially to better disseminate the most notable results of the AAMAS workshops and encourage authors to submit top-quality research work to the AAMAS workshops.

July 2016 Nardine Osman
Carles Sierra

Organization

AAMAS 2016 Workshop Co-chairs

Nardine Osman Artificial Intelligence Research Institute, Spain Carles Sierra Artificial Intelligence Research Institute, Spain

AAMAS 2016 Workshop Organizers

Trust 2016

Jie Zhang Nanyang Technological University, Singapore

Robin Cohen University of Waterloo, Canada Murat Sensoy Ozyegin University, Turkey

OptMAS 2016

Archie Chapman University of Sydney, Australia

Pradeep Varakantham Singapore Management University, Singapore

William Yeoh New Mexico State University, USA

Roie Zivan Ben-Gurion University of the Negev, Israel

EXPLORE 2016

Haris Aziz NICTA and University of New South Wales, Australia

Felix Brandt Technische Universität München, Germany

David Manlove University of Glasgow, UK

Nicholas Mattei NICTA and University of New South Wales, Australia

IDEAS 2016

Adam Eck University of Nebraska-Lincoln, USA Leen-Kiat Soh University of Nebraska-Lincoln, USA

Bo An Nanyang Technological University, Singapore

Paul Scerri Platypus LLC, USA

Adrian Agogino NASA, USA

MABS 2016

Luis Antunes University of Lisbon, Portugal

Luis Gustavo Nardin Center for Modeling Complex Interactions, USA

EMAS 2016

Matteo Baldoni University of Turin, Italy

Jörg P. Müller Technische Universität Clausthal, Germany

VIII Organization

Ingrid Nunes Universidade Federal do Rio Grande do Sul, Brazil

Rym Zalila-Wenkstern University of Texas at Dallas, TX, USA

ALA 2016

Daan Bloembergen University of Liverpool, UK

Tim Brys Vrije Universiteit Brussels, Belgium Logan Yliniemi University of Nevada, Reno, USA

ACAN 2016

Katsuhide Fujita Tokyo University of Agriculture and Technology,

Japan

Naoki Fukuta Shizuoka University, Japan

Takayuki Ito Nagoya Institute of Technology, Japan Minjie Zhang University of Wollongong, Australia

Quan Bai Auckland University of Technology, New Zealand

Fenghui Ren University of Wollongong, Australia Chao Yu Dalian University of Technology, China

Reyhan Aydogan Ozyegin University, Turkey

ABMUS 2016

Pascal Perez University of Wollongong, Australia

Lin Padgham RMIT, Australia

Kai Nagel Technische Universität Berlin, Germany

Ana L.C. Bazzan Universidade Federal do Rio Grande do Sul, Brazil

Mohammad-Reza University of Wollongong, Australia

Namazi-Rad

COIN 2016, with a special joint session with CARE 2016

Samhar Mahmoud (COIN)
Stephen Cranefield (COIN)
Fernando Koch (CARE)
Tiago Primo (CARE)
Andrew Koster (CARE)

King's College London, UK
University of Otago, New Zealand
Samsung Research Institute, Brazil
Samsung Research Institute, Brazil

Christian Guttmann UNSW, Australia, IVBAR, and Karolinska Institute,

(CARE) Sweden

WEIN 2016

Satoshi Kurihara University of Electro-Communications, Japan

Hideyuki Nakashima Future University-Hakodate, Japan Akira Namatame National Defense Academy, Japan

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