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Peter Vrancx   Matthew Knudson
Marek Grześ (Eds.)

Adaptive and Learning Agents

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Revised Selected Papers

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Volume Editors

Peter Vrancx
Vrije Universiteit Brussel
AI and Computational Modeling Lab
1050 Brussel, Belgium
E-mail: pvrancx@vub.ac.be

Matthew Knudson
Carnegie Mellon University
NASA Ames Research Park
Moffet Field, CA 94035, USA
E-mail: matt.knudson@sv.cmu.edu

Marek Grześ
University of Waterloo
School of Computer Science
Waterloo, ON, N2L 3G1, Canada
E-mail: mgrzes@cs.uwaterloo.ca

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Preface

This book contains selected papers from the 2011 Adaptive and Learning Agents Workshop (ALA2011), held during the Autonomous Agents and Multi-Agent Systems Conference (AAMAS) in Taipei, Taiwan. The ALA workshop resulted from the merger of the ALAMAS and ALAg workshops. ALAMAS was an annual European workshop on adaptive and learning agents and multi-agent systems, held eight times. ALAg was the international workshop on adaptive and learning agents, typically held in conjunction with AAMAS. To increase the strength, visibility, and quality of the workshops, ALAMAS and ALAg were combined into the ALA workshop, and a Steering Committee was appointed to guide its development.

The goal of ALA is to increase awareness and interest in adaptive agent research, encourage collaboration, and provide a representative overview of current research in the area of adaptive and learning agents. It aims at bringing together not only different areas of computer science (e.g., agent architectures, reinforcement learning, and evolutionary algorithms), but also different fields studying similar concepts (e.g., game theory, bio-inspired control, and mechanism design). The workshop serves as an interdisciplinary forum for the discussion of ongoing or completed work in adaptive and learning agents and multi-agent systems.

This book contains seven carefully selected papers, which were presented at the ALA2011 workshop. Each paper was thoroughly reviewed and revised over two separate review rounds. The accepted papers cover a wide range of topics, including: single and multi-agent reinforcement learning, transfer learning, agent simulation, minority games, and agent coordination. In addition to these papers, we are also pleased to present an invited chapter by Peter McBurney of the Agents and Intelligent Systems Group at King's College London. Prof. McBurney presented his work on "Co-learning Segmentation in Marketplaces" in an invited talk at the ALA2011 workshop.

We would like to extend our gratitude to everyone who contributed to this edition of the ALA workshop. Organizing an event such as ALA would not be possible without the efforts of many motivated people. First, we would like to thank all authors who responded to our call-for-papers, as well as our invited speaker, Peter McBurney. We are also thankful to the members of our Program Committee for their high-quality reviews, which ensured the strong scientific content of the workshop. Finally, we would like to thank the members of the ALA Steering Committee for their guidance, and the AAMAS conference for providing an excellent venue for our workshop.

October 2011

Peter Vrancx
Matt Knudson
Marek Grześ

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