Preface

Social simulation has a dialectical relationship to Artificial Intelligence (AI), in general, and Multi-Agent Systems (MAS), in particular. It is both an area for the application of methods, techniques and technologies of AI and MAS, as well as a source of inspiration for new theories, models and methods for AI and MAS, as it draws upon the theories, models and methods of the social sciences (anthropology, sociology, political science, economy, government, management, etc.).

The first edition of the Brazilian Workshop on Social Simulation (BWSS 2008) was held in Salvador, BA, Brazil, and co-located with SBIA 2008, on October 2008. The second edition of the workshop (BWSS 2010) was a two-day event co-located with the Joint Conference SBIA/SBRN/JRI 2010, which happened in São Bernardo do Campo, SP, Brazil, on 23-28 October 2010.

The workshops addressed theoretical, methodological, technical and instrumental issues concerning the area of simulation of social systems, thus presented an interdisciplinary character.

Theories and models of societies and smaller social systems that embody a computational concern were at the center of the event. Micro-level and macro-level issues concerning structures and processes at the social and individual levels, as well as the mutual influence between such conceptual levels, and problems of upward and downward causation between them were also contemplated.

Techniques, tools and computational environments for the simulation of those models, especially those based on agent and multiagente technologies, and AI methods in general, were of primary concern.

Applications of social simulation to various areas of social sciences (anthropology, sociology, political science, economy, government, management, etc.) were also discussed by the audience.

BWSS 2010 brought two invited speakers:

- **Prof. Nigel Gilbert** (University of Surrey, United Kingdom), who talked about the differences between social systems (as special complex systems) and complex physical systems, discussing about some of the challenges that have to be faced in modelling social systems, especially using agent-based models, and reviewing the potential for this style of research.

- **Prof. Cristiano Castelfranchi** (ISTC-CNR, Italy), who presented a discussion on the intra & inter-network dynamics, and the semantics of the links, with a general considerations about deriving respectively networks and links from other networks and links, and examining different kinds and levels of social networks relations.

The workshops counted on an international Program Committee, which included well-known researchers from Brazil and abroad. The topics of interest of the accepted technical papers were mainly about:

- Theoretical foundations of social simulation;

- Methods and models for social simulation;

- AI and MAS tools, techniques, models and environments for social simulation;

- Applications of social simulation.

During BWSS 2010 two working meetings were held, involving the audience, the invited speakers, and Prof. Helder Coelho (Universidade de Lisboa, Portugal), who was an invited speaker of the main Joint Conference. Those meetings, coordinated by Prof. Jaime Sichman (USP, Brazil),
produced a general overview of the research interests of the audience in order to allow for possible future cooperation projects.

The Post-Proceedings of BWSS 2010 include: an invited paper by Prof. Cristiano Castelfranchi (ISTC-CNR, Italy), in which he discusses about the general ideas he has outlined in his talk at the workshop, a selection of 11 revised papers presented at BWSS 2010, and also a selection of seven revised and updated papers presented at BWSS 2008.

We would like to express our sincere thanks to all program committee members for their cooperation in the reviewing process. We appreciate very much their efforts and fast feedbacks, which guaranteed the high quality of the technical program and of this publication.

We are also grateful to SBC, CNPq, CAPES, FAPESP and IEEE, for their technical and financial support to the workshop and to the organization of this volume.

Finally, we would like to thank the authors first for submitting their work to the workshop and also for their time and interest in revising their papers in order to accommodate all the suggestions and demands of the Program Committee.

We believe that the papers published in this volume present a high technical quality, and we hope that the readers could enjoy this publication.

Graçaliz Pereira Dimuro
Antônio Carlos da Rocha Costa
Jaime Simão Sichman
Patrícia Tedesco
Diana Francisca Adamatti
João Balsa
Luis Antunes

BWSS 2010 Post-Proceedings Editors