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Revised Selected and Invited Papers

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Series Editors

Randy Goebel, University of Alberta, Edmonton, Canada
Jörg Siekmann, University of Saarland, Saarbrücken, Germany
Wolfgang Wahlster, DFKI and University of Saarland, Saarbrücken, Germany

Volume Editor

Flaminio Squazzoni
University of Brescia
Department of Social Sciences
San Faustino 74/b, 25122 Brescia, Italy
E-mail: squazzon@eco.unibs.it

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Preface

This volume collects the revised versions of the invited and selected papers that were presented at the Second EPOS—Epistemological Perspectives on Simulation—Workshop, held in Brescia, Italy, in October 2006. EPOS is a bi-annual cross-disciplinary workshop on simulation originally established by Ulrich Frank and Klaus G. Troitzsch, with a first edition held in Koblenz in July 2004. EPOS aims to provide a forum for scholars from various disciplines, such as the social sciences, computer sciences, engineering and natural sciences, who are interested in discussing epistemological aspects of computer simulation across disciplinary boundaries. The common belief behind the workshop is the recognition that the time has come to seriously reflect on epistemological and methodological preconditions, processes and consequences of simulation as a research tool.

During the fist edition in Koblenz 2004, a number of interesting topics were carefully addressed: the link between theory and simulation models, the empirical validation of agent-based models in the natural and the social sciences, the relation between models and truth, as well as the role of stylized facts in evidence-based models. A good cross-disciplinary atmosphere permeated the workshop, making possible the exchange of knowledge and ideas beyond any disciplinary boundary. The first EPOS proceedings were edited by Ulrich Frank and Klaus G. Troitzsch and published in the *Journal of Artificial Societies and Social Simulation*, Vol. 8, No. 4, 2005.

The second edition in Brescia 2006 was led by social scientists, after a careful and strong selection process that limited the number of presented papers from 35 submissions to 11 presentations. Nigel Gilbert and Rosaria Conte were the invited speakers. Topics addressed ranged from epistemological and methodological contents, such as the relevance of empirical foundations for agent-based simulations, the role of theory, the concepts and meanings of emergence, the trade-off between simplification and complexification of models. The discussion among the participants was vivid and vibrant, confirming the common interest in these issues. Given the high-level contents of the discussions, together with Ulrick Frank and Klaus G. Troitzsch, who attended the workshop, we decided to write an introductory chapter, where most of the contents of the discussions have a representative synthesis.

November 2008 Flaminio Squazzoni

Organization

The Second EPOS—Epistemological Perspectives on Simulation—Workshop was held at the University of Brescia in October 2006 with the financial support of the Lucchini Foundation, University of Brescia and ESSA (European Social Simulation Association), for which we gratefully acknowledge Severo Bocchio (Lucchini Foundation Chief), Giancarlo Provasi (Vice-Chancellor of the University of Brescia), Serafino Negrelli (University of Brescia), and the members of ESSA Management Committee.

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