

# Preface

The modern world is globalizing, and modern people enjoy the advantages of globalization. They travel from one continent to another, do sports in different world stadiums, attend international conferences, etc.

However, globalization brings not only advantages but can be also problematic. For example, human communication in times of globalization is not trivial and carries the risk of misinterpretations and misunderstandings.

This book addresses this problem and presents a comprehensive, multidisciplinary study of intercultural Social Interaction (SI) and intercultural Social Simulation (SS). Its ultimate aim is to demonstrate the development of an SS software that assists human experts to comprehend intercultural processes and thus to facilitate intercultural communication in the context of Human–Computer Interaction (HCI).

The book describes a generic, domain-independent approach to developing computer systems that realize intercultural SS. It discusses SI and SS from the perspective of different disciplines and puts special focus on intercultural aspect of discussion.

The book is a monograph where most of the findings are verified using the author's own software. It is not only computer scientists who can benefit from this book, but also researchers, research workers, practitioners, professionals in cognitive science, for example, linguistics, philosophers, or neurologists, since it covers a broad spectrum of research such as research of SI and SS in the social linguistics, the social philosophy, or neurobiology.

The idea of this book emerged from my postdoctoral application to the Japan Society for the Promotion of Science. The book explores existing approaches to SI and SS and reveals significant determinants of processing. For example, it explains reasons for consideration of the notion “identity” in simulation systems or why it is indispensable to maintain the simulation context and consider a physical space in SS. The book shows how these aspects can be implemented computationally.

To perform intercultural simulation and to develop computational prototypes of simulation systems, this book discusses the means to acquire intercultural data. It describes the own framework for statistical processing and prototyping that tackles

necessary data and composes computer prototypes. This discussion is accompanied by practical recommendations on realization of the proposed algorithms and by the program code.

Although this book, as with many scientific books, is not an entertainment or an easy endeavor in the strictly conventional sense of these words, it can be nevertheless very engaging—it contains, besides specific guidelines for developers of the SS, software different cultural facts, mundane information, and colloquial explanations that are worth consideration by all scientists of the modern globalized world.

Augsburg, Germany  
September 2013

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## **Acknowledgments**

I am very indebted to the Japan Society for the Promotion of Science and in particular to Prof. Toyooki Nishida (Kyoto University) that initiated this research. I hope that I achieved satisfactory results.

I am very grateful to Giovanni Caire (Telecom Italia S.p.A.) who sacrificed his precious time to thoroughly answer my questions about specifics of building multi-agent systems in JADE.

I would like to thank my parents. This work would have been impossible without their support.

Social Interaction, Globalization and Computer-Aided  
Analysis

A Practical Guide to Developing Social Simulation

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2014, XVII, 245 p. 82 illus. in color., Hardcover

ISBN: 978-1-4471-6259-9