Record Nr. UNINA9910253961103321 Toward Robotic Socially Believable Behaving Systems - Volume II: Titolo Modeling Social Signals / / edited by Anna Esposito, Lakhmi C. Jain Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-31053-4 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (214 p.) Collana Intelligent Systems Reference Library, , 1868-4394; ; 106 Disciplina 629.8924019 Soggetti Computational intelligence Artificial intelligence Social media User interfaces (Computer systems) Robotics Automation Computer simulation Computational Intelligence Artificial Intelligence Social Media User Interfaces and Human Computer Interaction Robotics and Automation Simulation and Modeling Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Preface: International Scientific Committee: Sponsoring Organizations: Contents: About the Editors: 1 Moving Robots from Industrial Sectors to Domestic Spheres: A Foreword; References; 2 Modeling Social Signals and Contexts in Robotic Socially Believable Behaving Systems; 2.1 Introduction; 2.2 Content of the Book; 2.3 Conclusions; References; 3

Adaptive and Evolutive Algorithms: A Natural Logic for Artificial Mind; 3.1 Introduction; 3.2 Can a Machine Become Self-Aware?; 3.3 Decision

Making and Intuition Algorithms; 3.4 Conclusions; References; 4

**Toward Conscious-Like Conversational Agents** 

4.1 Introduction4.2 Related Work; 4.3 Where to Go from Here?; 4.3.1 The Fundamental Features of Consciousness; 4.4 Conceptual and Methodological Pitfalls; 4.4.1 The Methodological Pitfall of Purely Statistical Approaches; 4.4.2 The Conceptual Pitfall of Misinterpreting the Dialogue Structure; 4.4.3 Addressing the Pitfalls; 4.5 Unified Interpretation; 4.6 Qualitativeness; 4.7 Discussion: Ongoing and Future Work; 4.7.1 Learning Through Interaction; 4.7.2 Context-Dependent Perception; 4.8 Conclusion; References; 5 Communication Sequences and Survival Analysis; 5.1 Introduction 5.2 Dialogue Symbol Sequences5.3 Survival Analysis; 5.3.1 General Method; 5.3.2 An Example; 5.3.3 Discussion; 5.4 Conclusions; References; 6 The Relevance of Context and Experience for the Operation of Historical Sound Change; 6.1 The Phonetic Basis of Sound

References; 6 The Relevance of Context and Experience for the Operation of Historical Sound Change; 6.1 The Phonetic Basis of Sound Change; 6.2 Sound Change and Experience; 6.3 Sound Change and First Language Acquisition; 6.4 Sound Change and Imitation; 6.5 Concluding Comments; References; 7 Fostering User Engagement in Face-to-Face Human-Agent Interactions: A Survey; 7.1 Introduction; 7.2 Designing Engaging Agents---State of the Art

7.2.1 Taking into account Socio-Emotional Behavior7.2.2 Generation of Agent's Socio-Emotional Behavior; 7.2.3 Socio-Emotional Interaction Strategies; 7.2.4 Alignment-Related Processes; 7.2.5 Impact on User's Impression; 7.2.6 Methodologies for Evaluating User Engagement in Human-Agent Interactions; 7.2.7 Summary of the Key Points for the Design of Engaging Agent; 7.3 Overview of Studies Carried Out in GRETA and VIB; 7.3.1 Greta System and VIB Platform; 7.3.2 Modeling Dynamical Coupling; 7.3.3 Enhancing User Engagement through Verbal Alignment by the Agent

7.3.4 Engaging Users in Multiparty Group Interaction with the Expression of Interpersonal Attitudes 7.4 Conclusion and Perspectives; References; 8 Virtual Coaches for Healthy Lifestyle; 8.1 Introduction; 8.2 Persuasive Communication and Persuasive Technology; 8.2.1 Persuasive Communication; 8.2.2 Persuasive Technology; 8.2.3 The Computer as Persuasive Social Actor; 8.3 The Persuasiveness of Virtual Humans; 8.3.1 Naturalness and Credibility; 8.3.2 Virtual Humans and Behavior Change Support Systems; 8.4 Kristina---Virtual Coach for Physical Activity; 8.4.1 Articulated Social Agent Platform 8.5 Coaching by Means of Text Messages or by a Virtual Human

## Sommario/riassunto

This volume presents a collection of research studies on sophisticated and functional computational instruments able to recognize, process, and store relevant situated interactional signals, as well as, interact with people, displaying reactions (under conditions of limited time) that show abilities of appropriately sensing and understanding environmental changes, producing suitable, autonomous, and adaptable responses to various social situations. These social robotic autonomous systems will improve the quality of life of their end-users while assisting them on several needs, ranging from educational settings, health care assistance, communicative disorders, and any disorder impairing either their physical, cognitive, or social functional activities. The multidisciplinary themes presented in the volume will be interesting for experts and students coming from different research fields and with different knowledge and backgrounds. The research reported is particularly relevant for academic centers, and Research & Development Institutions. .