

Social Signal Processing

Social Signal Processing is the first book to cover all aspects of the modeling, automated detection, analysis, and synthesis of nonverbal behavior in human–human and human–machine interactions.

Authoritative surveys address conceptual foundations, machine analysis and synthesis of social signal processing, and applications. Foundational topics include affect perception and interpersonal coordination in communication; later chapters cover technologies for automatic detection and understanding, such as computational paralinguistics and facial expression analysis, and for the generation of artificial social signals, such as social robots and artificial agents. The final section covers a broad spectrum of applications based on social signal processing in healthcare, deception detection, and digital cities, including detection of developmental diseases and analysis of small groups.

Each chapter offers a basic introduction to its topic, accessible to students and other newcomers, and then outlines challenges and future perspectives for the benefit of experienced researchers and practitioners in the field.

Judee K. Burgoon is Professor of Communication, Family Studies and Human Development at the University of Arizona, where she is Director of Research for the Center for the Management of Information. She has authored or edited 14 books and monographs and more than 300 published articles, chapters, and reviews related to nonverbal and verbal communication, interpersonal deception, and computer-mediated communication. The recipient of the highest honors from the International Communication Association and National Communication Association, she has been named the most published woman in the field of communication in the twentieth century.

Nadia Magnenat-Thalmann has pioneered research into virtual humans over the last 30 years. In 1989, she founded the interdisciplinary research group MIRALab at the University of Geneva. She has published more than 500 works on virtual humans and social robots and she has given more than 300 keynote lectures in various institutions and organizations. She has received more than 30 awards and, besides directing her research group MIRALab in Geneva, is presently Visiting Professor and Director of the Institute for Media Innovation (IMI) at Nanyang Technological University, Singapore.

Maja Pantic is Professor of Affective and Behavioral Computing and leader of the iBUG group at Imperial College, London, working on machine analysis of human nonverbal behavior and its applications to human–computer, human–robot, and computer-mediated human–human interaction. She has published more than 250 technical papers in machine analysis of facial expressions, machine analysis of human body gestures, audio-visual analysis of emotions and social signals, and human-centered machine interfaces.

Alessandro Vinciarelli is Senior Lecturer (Associate Professor) of the School of Computing Science and Associate Academic of the Institute of Neuroscience and Psychology at the University of Glasgow. He has published more than 100 scientific works, has been principal or co-principal investigator on 15 national and international projects (including the European Network of Excellence on Social Signal Processing), has organized more than 25 scientific events and has co-funded a webcasting company, Klewel.

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Edited by Judee K. Burgoon , Nadia Magnenat-Thalmann , Maja Pantic , Alessandro Vinciarelli

Frontmatter

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JUDEE K. BURGOON

NADIA MAGNENAT-THALMANN

MAJA PANTIC

ALESSANDRO VINCIARELLI



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Contents

	<i>Contributors</i>	<i>page</i>
1	Introduction: Social Signal Processing Alessandro Vinciarelli	1
Part I Conceptual Models of Social Signals		
2	Biological and Social Signaling Systems Kory Floyd and Valerie Manusov	11
3	Universal Dimensions of Social Signals: Warmth and Competence Cydney H. Dupree and Susan T. Fiske	23
4	The Vertical Dimension of Social Signaling Marianne Schmid Mast and Judith A. Hall	34
5	Measuring Responses to Nonverbal Social Signals: Research on Affect Receiving Ability Ross Buck, Mike Miller, and Stacie Renfro Powers	46
6	Computational Analysis of Vocal Expression of Affect: Trends and Challenges Björn Schuller, Aaron Elkins, and Klaus Scherer	56
7	Self-presentation: Signaling Personal and Social Characteristics Mark R. Leary and Katrina P. Jongman-Sereno	69
8	Interaction Coordination and Adaptation Judee K. Burgoon, Norah E. Dunbar, and Howard Giles	78
9	Social Signals and Persuasion William D. Crano and Jason T. Siegel	97
10	Social Presence in CMC and VR Christine Rosakranse, Clifford Nass, and Soo Youn Oh	110

Part II Machine Analysis of Social Signals

11	Facial Actions as Social Signals	123
	Michel Valstar, Stefanos Zafeiriou, and Maja Pantic	
12	Automatic Analysis of Bodily Social Signals	155
	Ronald Poppe	
13	Computational Approaches for Personality Prediction	168
	Bruno Lepri and Fabio Pianesi	
14	Automatic Analysis of Aesthetics: Human Beauty, Attractiveness, and Likability	183
	Hatice Gunes and Björn Schuller	
15	Interpersonal Synchrony: From Social Perception to Social Interaction	202
	Mohamed Chetouani, Emilie Delaerche, Guillaume Dumas, and David Cohen	
16	Automatic Analysis of Social Emotions	213
	Hatice Gunes and Björn Schuller	
17	Social Signal Processing for Automatic Role Recognition	225
	Alessandro Vinciarelli	
18	Machine Learning Methods for Social Signal Processing	234
	Ognjen Rudovic, Mihalis A. Nicolaou, and Vladimir Pavlovic	

Part III Machine Synthesis of Social Signals

19	Speech Synthesis: State of the Art and Challenges for the Future	257
	Kallirroi Georgila	
20	Body Movements Generation for Virtual Characters and Social Robots	273
	Aryel Beck, Zerrin Yumak, and Nadia Magnenat-Thalmann	
21	Approach and Dominance as Social Signals for Affective Interfaces	287
	Marc Cavazza	
22	Virtual Reality and Prosocial Behavior	304
	Ketaki Shriram, Soon Youn Oh, and Jeremy Bailenson	
23	Social Signal Processing in Social Robotics	317
	Maha Salem and Kerstin Dautenhahn	

Part IV Applications of Social Signal Processing

24	Social Signal Processing for Surveillance Dong Seon Cheng and Marco Cristani	331
25	Analysis of Small Groups Daniel Gatica-Perez, Oya Aran, and Dinesh Jayagopi	349
26	Multimedia Implicit Tagging Mohammad Soleymani and Maja Pantic	368
27	Social Signal Processing for Conflict Analysis and Measurement Alessandro Vinciarelli	379
28	Social Signal Processing and Socially Assistive Robotics in Developmental Disorders Mohamed Chetouani, Sofiane Boucenna, Laurence Chaby, Monique Plaza, and David Cohen	389
29	Social Signals of Deception and Dishonesty Judee K. Burgoon, Dimitris Metaxas, Thirimachos Bourlai, and Aaron Elkins	404

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[More Information](#)

Contributors

Oya Aran

Idiap Research Institute

Jeremy Bailenson

Stanford University

Aryel Beck

Nanyang Technological University

Sofiane Boucenna

University Pierre and Marie Curie

Thirimachos Bourlai

West Virginia University

Ross Buck

University of Connecticut

Judee K. Burgoon

University of Arizona

Marc Cavazza

Tees University

Laurence Chaby

University Pierre and Marie Curie, University Paris Descartes

Dong Seon Cheng

Hankuk University of Foreign Studies

Mohamed Chetouani

University Pierre et Marie Curie

David Cohen

University Pierre et Marie Curie

William D. Crano

Claremont Graduate School

Marco Cristani

University of Verona

Kerstin Dautenhahn

University of Hertfordshire

Emilie Delaherche

University Pierre et Marie Curie

Guillaume Dumas

University Pierre et Marie Curie

Norah E. Dunbar

University of California Santa Barbara

Cydney H. Dupree

Princeton University

Aaron Elkins

San Diego State University

Susan Fiske

Princeton University

Kory Floyd

Arizona State University

Daniel Gatica-Perez

Idiap Research Institute and EPFL

Kallirroi Georgila

Institute of Creative Technologies

Howard Giles

University of California Santa Barbara

Hatice Gunes

University of Cambridge

Judith A. Hall

Northeastern University

Dinesh Jayagopi

IIIT Bangalore

Katrina T. Jongman-Sereno

Duke University

Mark Leary

Duke University

Bruno Lepri

Bruno Kessler Foundation

Nadia Magnenat-Thalmann

University of Geneva and Nanyang Technological University

Valerie Manusov

University of Washington

Dimitri Metaxas

Rutgers University

Mike Miller

Massachusetts College of Pharmacy and Health Sciences

Clifford Nass

Stanford University

Mihalis Nicolau

Imperial College London

Soo Youn Oh

Stanford University

Maja Pantic

Imperial College London and University of Twente

Vladimir Pavlovic

Rutgers University

Fabio Pianesi

Bruno Kessler Foundation

Monique Plaza

University Pierre and Marie Curie, University Paris Descartes

Ronald Poppe

University of Twente

Stacie Renfro Powers

Philliber Research Associates

Christine Rosakranse

Stanford University

Ognjen Rudovic

Imperial College London

Maha Salem

University of Hertfordshire

Klaus Scherer

University of Geneva

Marianne Schmid Mast

University of Lausanne

Björn Schuller

Imperial College London and Technical University Munich

Ketaki Shriram

Stanford University

Jason T. Siegel

Claremont Graduate School

Mohammad Soleymani

University of Geneva

Nadia Thalmann

University of Geneva

Michel Valstar

University of Nottingham

Alessandro Vinciarelli

University of Glasgow

Zerrin Yumak

Nanyang Technological University

Stefanos Zafeiriou

Imperial College London