

Preface

Research on the multifaceted aspects of modeling, analysis, and synthesis of human gesture is receiving growing interest from both the academic and industrial communities. On one hand, recent scientific developments on cognition, on affect/emotion, on multimodal interfaces, and on multimedia have opened new perspectives on the integration of more sophisticated models of gesture in computer systems. On the other hand, the consolidation of new technologies enabling “disappearing” computers and (multimodal) interfaces to be integrated into the natural environments of users are making it realistic to consider tackling the complex meaning and subtleties of human gesture in multimedia systems, enabling a deeper, user-centered, enhanced physical participation and experience in the human-machine interaction process.

The research programs supported by the European Commission and several national institutions and governments individuated in recent years strategic fields strictly concerned with gesture research. For example, the DG Information Society of the European Commission (www.cordis.lu/ist) supports several initiatives, such as the “Disappearing Computer” and “Presence” EU-IST FET (Future and Emerging Technologies), the IST program “Interfaces & Enhanced Audio-Visual Services” (see for example the project MEGA, Multisensory Expressive Gesture Applications, www.megaproject.org), and the IST strategic objective “Multimodal Interfaces.” Several EC projects and other funded research are represented in the chapters of this book.

A wide range of applications can benefit from advances in research on gesture, from consolidated areas such as surveillance to new or emerging fields such as therapy and rehabilitation, home consumer goods, entertainment, and audio-visual, cultural and artistic applications, just to mention only a few of them.

This book is a selection of revised papers presented at the Gesture Workshop 2003, the 5th International Workshop on Gesture and Sign Language-Based Human-Computer Interaction, held in Genoa, Italy, during April 15–17, 2003.

The International Gesture Workshop is a forum where researchers working on gesture-based interfaces and gestural interaction present and exchange ideas and research currently in progress, with a crossdisciplinary focus. GW2003 was the fifth workshop after the 1996 Gesture Workshop in York (UK), considered as the starting event. Thenceforth, International Gesture Workshops have been held roughly every second year, with fully reviewed postproceedings typically published by Springer-Verlag.

As an indicator of the continuously growing interest of the scientific community in gesture-mediated human-computer interaction and human-language technology, a large number of high-quality submissions was received. The program included invited talks, oral presentations of long and short papers, presentations of posters, and demonstrations: around 90 contributors from 20 different countries offered a broad overview of the state of the art in many research fields

related to gesture-based communication. Over 170 delegates attended the workshop.

This workshop was organized by the InfoMus Lab at the DIST, University of Genoa, and was supported by the aforementioned EC IST MEGA project and by the Opera House Teatro Carlo Felice of Genova. We wish to thank Genaro Di Benedetto, Sovrintendente of the Teatro dell'Opera Carlo Felice and his staff (with particular thanks to Rita Castello, Graziella Rapallo and Giampaolo Sperini), APT Genova and Agenzia Regionale per la Promozione Turistica della Liguria, the invited speakers Frank Pollick (Department of Psychology, University of Glasgow, UK) and Shuji Hashimoto (Department of Applied Physics, Waseda University, Tokyo, Japan), the Scientific Committee, the session chairs, Barbara Mazzarino and the other members of the Local Organizing Committee (Roberto Chiarvetto, Roberto Dillon and Paolo Coletta), the staff and the students of the DIST InfoMus Lab who helped in the organization, and all the presenters and attendees. We thank also Martino Musso (Lever) for the support to the organization of the event, Eidomedia and NumenSoft.

November 2003

Antonio Camurri
Gualtiero Volpe

Gesture-Based Communication in Human-Computer
Interaction

5th International Gesture Workshop, GW 2003, Genova,
Italy, April 15-17, 2003, Selected Revised Papers
Camurri, A.; Volpe, G. (Eds.)
2004, XIII, 560 p., Softcover
ISBN: 978-3-540-21072-6