

# Preface

This volume presents the proceedings of the 16th International Conference on Intelligent Virtual Agents (IVA 2016). The annual IVA conference represents the main interdisciplinary scientific forum for presenting research on modeling, developing, and evaluating intelligent virtual agents (IVAs) with a focus on communicative abilities and social behavior. IVAs are intelligent digital interactive characters that can communicate with humans and other agents using natural human modalities such as facial expressions, speech, gestures, and movement. They are capable of real-time perception, cognition, emotion, and action that allow them to participate in dynamic social environments. In addition to exploring theoretical issues, the conference showcases working applications. Constructing and studying IVAs requires knowledge, theories, methods, and tools from a wide range of fields such as computer science, psychology, cognitive science, communication, linguistics, interactive media, human–computer interaction, and artificial intelligence.

The IVA conference was started in 1998 as a Workshop on Intelligent Virtual Environments at the European Conference on Artificial Intelligence in Brighton, UK, and was followed by a similar one in 1999 in Salford, Manchester, UK. Subsequently, dedicated stand-alone IVA conferences took place in Madrid in 2001, Irsee, Germany, in 2003, and Kos, Greece, in 2005. In 2006 IVA became a full-fledged annual international event, first held in Marina del Rey, California, followed by Paris in 2007, Tokyo in 2008, Amsterdam in 2009, Philadelphia in 2010, Reykjavik in 2011, Santa Cruz, California in 2012, Edinburgh in 2013, Boston in 2014, and Delft in 2015.

IVA 2016 was held in Los Angeles, California, at the University of Southern California Institute for Creative Technologies. Befitting IVA's Los Angeles location, this year's special topic was "Entertaining Virtual Agents." IVA 2016 sought to emphasize the synergy between intelligent virtual agents and entertainment. The increasing capabilities of intelligent virtual agents are gaining attention from the entertainment community, from non-player characters (NPCs) in video games to developing agents that immortalize famous people. The focus on entertainment cuts across a number of research areas in intelligent virtual agents, spanning serious games to agents who mirror emotional expressions. Virtual agents are increasingly deployed as interactive narrative story-tellers and companions, as well as entertaining and engaging pedagogical agents.

The interdisciplinary character of IVA 2016 and its special topic are underlined by the conference's two renowned keynote speakers:

- Jim Blascovich, Professor at the University of California, Santa Barbara
- Mark Walsh, Writer/Director/Animator/CEO, Motional Entertainment

IVA 2016 received 81 submissions. Out of the 44 long paper submissions, only 12 were accepted for the long papers track. Furthermore, there were 18 short papers selected for the single-track paper session, while 33 poster papers and four interactive demos were on display.

This year's IVA also included three workshops and two half-day tutorials that took place before the main conference.

The workshops were:

- “Workshop on Chatbots and Conversational Agents (WOCHAT),” organized by Rafael E. Banchs, Ryuichiro Higashinaka, Wolfgang Minker, Joseph Mariani, and David Traum
- “Can You Feel Me Now? Creating Physiologically Aware Virtual Agents (PAVA),” organized by Glenn Fox
- “Graphical and Robotic Embodied Agents for Therapeutic Systems GREATS16,” organized by Ruth Aylett and Pierre Philp

The tutorials were:

- “How to Build an Interactive Virtual Character,” organized by Zerrin Yumak
- “The Sigma Cognitive Architecture and System,” organized by Paul S. Rosenbloom and Volkan Ustun

IVA 2016 was locally organized by the Institute for Creative Technologies at the University of Southern California. We would like to express thanks to the rest of the conference Organizing Committee, listed herein. We would also like to thank the scientific committees that helped shape this excellent conference program, the Senior Program Committee for taking on great responsibility and the Program Committee for their time, effort, and constructive feedback to the authors. Additionally, we want to thank our keynote speakers for sharing their outstanding work and insights with the community. Further, we would like to thank our sponsors, including Alelo, Springer, and the organizers of IVA 2015 and the IVA Steering Committee.

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