

# The Third International Conference on Human-Robot Interaction

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■ *The third international conference on Human-Robot Interaction (HRI-2008) was held in Amsterdam, The Netherlands, March 12–15, 2008. The theme of HRI-2008, “living with robots,” highlights the importance of the technical and social issues underlying human-robot interaction with companion and assistive robots for long-term use in everyday life and work activities. More than 250 researchers, practitioners, and exhibitors attended the conference, and many more contributed to the conference as authors or reviewers. HRI-2009 will be held in San Diego, California, from March 11–13, 2009.*

The third international conference on Human-Robot Interaction (HRI-2008) was held March 12–15, 2008, in Amsterdam, The Netherlands. The conference was jointly sponsored by the Association for Computing Machinery (ACM) through SIGCHI and SIGART and by the IEEE Robotics and Automation Society. The conference was organized in cooperation with AAI, the Human Factors and Ergonomics Society, and the IEEE Systems, Man, and Cybernetics Society. The Naval Research Laboratory, the National Science Foundation, and the European Network for the Advancement of Artificial Cognitive Systems (EU Cognition) provided grants. More than 250 representatives from academia, government, and industry attended HRI-2008.

HRI is the premier forum for the presentation and discussion of research results in human-robot interaction. HRI is designed as a single-track, highly selective annual conference that seeks to showcase the very best research and thinking in human-robot interaction. Human-robot interaction is inherently interdisciplinary and multidisciplinary, and the conference sought papers from researchers in artificial intelligence, cognitive science, ergonomics, human-computer interaction, psychology, robotics, and other fields.

The theme of HRI-2008, “living with robots,” highlights the importance of building core science in HRI so that robots can be employed in everyday environments over the long term. In particular, understanding and identifying the key social and technical issues for robots operating in settings such as home, office, shopping, and museum environments is crucial for developing effective systems. HRI-2008 placed special emphasis on informing the development of companion and assistive robots. It also featured a panel on “robo-ethics” intended to start a discussion of the ethical and societal implications of autonomous robots and a panel on “what is HRI?” that examined the constitutive components of human-robot interaction.

Of the 134 submissions, the program committee accepted 48 full papers and 24 short papers spanning a wide range of topics, including field experiments and user studies, HRI foundations, multimodal interaction, and ethics. A total of 10 videos (out of 27 submissions) were featured in a special session.

HRI-2008 included three workshops and a tutorial. The workshops addressed metrics (an examination of proposed guidelines for evaluating HRI), coding behavioral video data (discussion of methods, problems, and



## Save the Date! — July 11–15, 2010

AAAI comes to Atlanta, Georgia in 2010! The Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI-10) and the Twenty-Second Conference on Innovative Applications of Artificial Intelligence (IAAI-10) will be held in Atlanta at the Westin Peachtree Plaza Hotel, July 11–15, 2010. Please mark your calendars, and visit [www.aaai.org/Conferences/AAAI/aaai10.php](http://www.aaai.org/Conferences/AAAI/aaai10.php) for updates later this year!

solutions), and robotic helpers (user interaction, interfaces, and companions in assistive and therapy robotics). The tutorial educated participants on experimental design for HRI, with an emphasis on methodology and test subject selection.

One novel aspect of HRI-2008 was the student robot design competition, which was supported by donations from Lego and National Instruments. Seven student teams competed to build robots using the same set of robot parts (including light, sound, and touch sensors). Students from the University of Amsterdam took top honors for Phobot, a robot that mimics human phobia and overcomes its “fear” through graded exposure.

We were delighted to have Herbert H. Clark (Stanford University, USA), Harold Bekkering (Radboud University, The Netherlands), and Raja Chatilla (LAAS-CNRS, France) provide thought-provoking keynote presentations. Clark, in his presentation titled “Talking as If,” proposed to view robots as “staged agents”—not as people, but as depictions of people—and

engage them as characters in a staged joint activity. Bekkering presented recent insights into the cognitive mechanisms underlying human joint action. Chatilla presented recent results from the European COGNIRON (the Cognitive Robot Companion) project, which is developing robots that will assist humans in their daily life.

The conference’s outstanding paper award went to “Robots in Organizations: The Role of Workflow, Social, and Environmental Factors in Human-Robot Interaction” by Bilge Mutlu and Jodi Forlizzi. The best student paper award went to Joseph Cooper and Michael A. Goodrich for “Towards Combining UAV and Sensor Operator Roles in UAV-Enabled Visual Search.” Susan Fussell (Carnegie Mellon University) was recognized as Best Reviewer for the second consecutive year in recognition of the high quality of her reviews.

**Terry Fong** is the director of the Intelligent Robotics Group at the NASA Ames Research Center. Prior to this, Fong was the deputy

leader of the Virtual Reality and Active Interfaces Group at the Swiss Federal Institute of Technology, Lausanne. From 1997 to 2000, he was vice president of development for Fourth Planet, Inc., a developer of real-time visualization software. Fong has published more than 50 papers in field robotics, human-robot interaction, virtual reality user interfaces, and parallel processing, was chair of the 2006 AAAI Spring Symposium on human-robot interaction in space, and is cogeneral chair for HRI-2008.

**Kerstin Dautenhahn** is the research professor of artificial intelligence in the School of Computer Science and coordinator of the Adaptive Systems Research Group at the University of Hertfordshire in the United Kingdom. Dautenhahn has pioneered research in human-robot interaction, social robotics, socially intelligent agents, social learning and imitation, and assistive technology and has published more than 200 research articles. Dautenhahn has been principal investigator of the Hertfordshire team of several national and European grants, including the robotics projects COGNIRON and RobotCub (FP6), IROMEC (FP6 STREP), and LIREC (FP7 IP). She was general chair of IEEE RO-MAN06 and cogeneral chair of HRI-2008.

**Matthias Scheutz** is currently an associate professor of cognitive science, computer science, and informatics in the Cognitive Science Program at Indiana University. He held prior faculty and research positions at the University of Notre Dame, the University of Birmingham (UK), and the University of Vienna (Austria). He has written more than 100 peer-reviewed publications in artificial intelligence, robotics, artificial life, agent-based computing, cognitive modeling, and foundations of cognitive science. Scheutz was the coprogram chair for HRI-2008 and is the cogeneral chair for HRI-2009.

**Yiannis Demiris** heads the intelligent robotics team at the Department of Electrical Engineering at Imperial College London. His research in robot human interaction and developmental and assistive robotics is funded by EPSRC, the Royal Society, BBC Research, and General Dynamics UK Ltd. He has guest-edited special issues of the *IEEE Transactions* on SMC-B on learning by observation, demonstration, and imitation and of the *Adaptive Behavior Journal* on developmental robotics. He has organized six international workshops on robot learning, bioinspired machine learning, and epigenetic robotics, and was the chair of the 2007 IEEE Conference on Development and Learning.