New Frontiers in Human-Robot Interaction

A two-day symposium at AISB 2009 (6-9 April 2009), Heriot-Watt University in Edinburgh, Scotland

Held during the Science Festival (6-18 April 2009): http://www.sciencefestival.co.uk/

Draft Programme

Wednesday 8th April 2009

9:00-9:05 Opening and Welcome

9:05-10:30 Session: Human-Robot Communication and Collaboration (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Aris Alissandrakis, Tokyo Institute of Technology, Japan)

Heuristic Rules for Human-Robot Interaction Based on Principles from Linguistics - Asking for Directions
Andrea Bauer and Barbara Gonsior and Dirk Wollherr and Martin Buss (Technische Universität München, Germany)

A WOz Framework for Exploring Miscommunication in HRI
Theodora Koulouri, Stasha Lauria (University of Brunel, UK)

Exploring the use of a handheld device in language teaching human-robot interaction
Pierre Rouanet, Pierre-Yves Oudeyer (INRIA, France)

A dynamic field approach to goal inference and error monitoring for human-robot interaction
Estela Bicho, Luís Louro, Nzoji Hipólito, Wolfram Erlhagen (University of Minho, Portugal)

10:30-11:00 Coffee Break

11:00-12:30 Session: Companions (4 contributed papers, 15 min each for presentation, followed by 25 min discussion of all session papers, chaired by Kerstin Dautenhahn, University of Hertfordshire, UK)
Human to Robot Demonstrations of Routine Home Tasks: Acknowledgment and Response to the Robot’s Feedback
Aris Alissandrakis and Yoshihiro Miyake (Tokyo Institute of Technology, Japan)

An Architecture Supporting Proactive Robot Companion Behavior
Muhammad Ali and Samir Alili, Matthieu Warnier, Rachid Alami (CNRS-LAAS, France)

The boy-robot should bark! – Children’s Impressions of Agent Migration into Diverse Embodiments
Dag Sverre Syrdal, Kheng Lee Koay, Michael L. Walters, Kerstin Dautenhahn
(University of Hertfordshire, UK)

Preferences and Perceptions of Robot Appearance and Embodiment in Human-Robot Interaction Trials
Michael L. Walters, Kheng Lee Koay, Dag Sverre Syrdal, Kerstin Dautenhahn and René te Boekhorst (University of Hertfordshire, UK)

12:30-13:00 Short Invited Talk (20 min talk plus 10 min discussion)
Affect, empathy and graphical characters
Ruth Aylett (Heriot-Watt University, Scotland)

13:00-14:00 Lunch Break

14:00-15:30 Session: Human-Robot Interaction Design (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Astrid Weiss, University of Salzburg, Austria)

Iterative design process for robots with personality
Bernt Meerbeek, Martin Saerbeck, Christoph Bartneck (Philips Research, NL; Univ. of Tech. Eindhoven, NL)

Affective-Centered Design for Interactive Robots
Laurel D. Riek, Peter Robinson (University of Cambridge, UK)

Using Visual Attention to Evaluate Collaborative Control Architectures for Human Robot Interaction
Tom Carlson, Yiannis Demiris (Imperial College London, UK)

An Empirical Framework for Human-Robot Proxemics
Michael L Walters, Kerstin Dautenhahn, René te Boekhorst, Kheng Lee Koay, Dag Sverre Syrdal, Chrystopher L. Nehaniv (University of Hertfordshire, UK)

15:30-16:00 Coffee Break
**16:00-16:45 Session: Human-Robot Perceptions** (2 contributed papers, 15 min each for presentation, followed by 15 min discussion of all session papers, chaired by Dag S. Syrdal, University of Hertfordshire, UK)

*Addressing User Experience and Societal Impact in a User Study with a Humanoid Robot*
Astrid Weiss, Regina Bernhaupt, Manfred Tscheligi, Eiichi Yoshida (University of Salzburg, Austria; University Paul Sabtiter, France; National Institute of Advanced Industrial Science and Technology, Japan)

*Video observation of humanoid robot movements elicits motor interference*
Aleksandra Kupferberg, Stefan Glasauer, Markus Huber, Markus Rickert, Alois Knoll, Thomas Brandt (Ludwig-Maximilians-Univ. Munich, Germany; Technical Univ. München, Germany)

**16:45-17:15 Short Invited Talk** (20 min talk plus 10 min discussion)
*Integration of Therapeutic Robot, Paro, into Elderly Care in Denmark*
Takanori Shibata (National Institute of Advanced Industrial Science and Technology, Japan)

17:15 end of day 1 of symposium

Followed by Dinner and Keynote AISB talk which starts at 18:30

**Thursday 9th April 2009**

**9:00-10:30 Session: Human-Robot Interfaces and Designs** (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Holly Yanco, University of Massachusetts Lowell, USA)

*Haptic Control for the Interactive Behavior Operated Shopping Trolley InBOT*
Michael Göller and Thilo Kerscher and Marco Ziegenmeyer, Arne Rönnau, J.Marius Zöllner, Rüdiger Dillmann (FZI Research Center for Information Technology, Karlsruhe, Germany)

*Photogeometric Sensing for Mobile Robot Control and Visualisation Tasks*
Alonzo Kelly, Dean Anderson, Erin Capstick, Herman Herman, Pete Rander (Carnegie Mellon University, USA; DCS Corporation, USA)

*Supporting Remote Manipulation with an Ecological Augmented Virtuality Interface*
J. Alan Atherton, Michael A. Goodrich (Brigham Young University, USA)

*The Advantage of Mobility: Mobile Tele-operation for Mobile Robots*
Alberto Valero, Gabriele Randelli, Chiara Saracini, Fabiano Botta, Massimo Mecella (SAPIENZA - Università di Roma, Italy)
10:30-11:00 Coffee Break

11:00-11:45 Session: Human-Robot Design Proposals (2 contributed papers, 15 min each for presentation, followed by 15 min discussion of all session papers, chaired by Michael L. Walters, University of Hertfordshire, UK)

*Baby steps: A design proposal for more believable motion in an infant-sized android*
Silpa Wairatpanij, Himalaya Patel, Gary D. Cravens, and Karl F. MacDorman (Indiana University, USA)

*Toward Therapist-in-the-Loop Assistive Robotics for Children with Autism and Specific Language Impairment*
Mark B. Colton, Daniel J. Ricks, Michael A. Goodrich, Behzad Dariush, Kiku Fujimura, and Martin Fujiki (Brigham Young University, USA; Honda Research Institute, USA)

11:45-13:00 Invited Keynote Talk (50 min talk plus 25 min discussion)

*How to Partner with a Robot: The Design Space of Human-Robot Interaction*
Holly Yanco (University of Massachusetts Lowell, USA)

13:00-14:00 Lunch Break

14:00-15:30 Session: Human-Robot Attitudes and Evaluations (4 contributed papers, 15 min each for presentation, followed by 30 min discussion of all session papers, chaired by Wolfram Erlhagen, University of Minho, Portugal)

*The role of expectations in HRI*
Manja Lohse (University of Bielefeld, Germany)

*The Negative Attitudes towards Robots Scale and Reactions to Robot Behaviour in a Live Human-Robot Interaction Study*
Dag Sverre Syrdal, Kerstin Dautenhahn, Kheng Lee Koay, Michael L. Walters (University of Hertfordshire, UK)

*The USUS Evaluation Framework for Human-Robot Interaction*
Astrid Weiss, Regina Bernhaupt, Michael Lankes, Manfred Tscheligi (University of Salzburg, Austria; University Paul Sabtier, France)

*Creating Trustworthy Robots: Lessons and Inspirations from Automated Systems*
Munjal Desai, Kristen Stubbs, Aaron Steinfeld, Holly Yanco (University of Massachusetts Lowell, USA; Carnegie Mellon University, USA)

15:30-16:00 Coffee Break

16:00-17:00 Panel discussion and Conclusion
17:00 End of Symposium

Followed by Dinner and Keynote AISB talk which starts at 18:30

AISB Keynote Talks (as part of the Edinburgh Science Festival) during the HRI@AISB09 Symposium

Wednesday 8th April, 18:30 "Is there a Future for Robot Companions?" by Kerstin Dautenhahn

Thursday 9th April, 18:30: "Why Robots must be Relativists" by Alan Bundy

See http://www.aisb.org.uk/convention/aisb09/speakers.php for the complete list of AISB Convention Keynote talks

Details about AISB2009 convention:
http://www.aisb.org.uk/convention/aisb09/