COST Workshop on Social Robotics

The Future Concept and Reality of Social Robotics: Challenges, Perception and Applications

The Role of Social Robotics in Current and Future Society

10-13 June 2013, International Press Centre, Brussels (BE)

Location

10 June: Hotel NH Du Grand Sablon, Rue Bodenbroek 2/4, 1000 Brussels (BE)
11-13 June: International Press Centre, Rue de la Loi 155, 1000 Brussels (BE)

General Themes

- Our Perception on the Shape of Robots: How do we conceptualise them? What do they look like? How do we wish them to be?
- The Role of Robots: What do we expect them to do? What should be their function in current and future society?
- Human-Robot Interaction: How shall we interact with them, both from a functional and an emotional perspective?
- State-of-the-Art: Which are the existing applications? Which areas are most suitable / promising? What are the most recent developments on e.g. computational models, machine learning and artificial intelligence technologies?
- Challenges: What still needs to be developed? How to tackle issues such as liability, desirability and privacy?

Programme

Monday 10 June 2013
Hotel NH Du Grand Sablon, Rue Bodenbroek 2/4, 1000 Brussels (BE)

17.30 – 19.00: Workshop Registration

19.00 – 19.30: Welcome words by **COST representatives**

19.30 – 20.00: **Gianpiero Brunetta** (University of Padua, IT) "Robots in the cinema"

20.00 – 22.00: Dinner

Tuesday 11 June 2013
International Press Centre, Rue de la Loi 155, 1000 Brussels (BE)

8.30   Workshop Registration

9.00 – 13.00: Plenary Session (Polak Room) - Chair: Leopoldina Fortunati (University of Udine, IT)

9.00 – 9.15: Official Opening by **Tatiana Kovacikova**, COST Office Head of Science Operations

9.15 – 9.30: Workshop Introduction by **Leopoldina Fortunati**, Head of the Organising Committee

9.30 – 10.00: **Anne Bajart** (EC/DG Connect A2 Robotics) "The EU-funded research programme in robotics: achievements and perspectives"

10.00 – 10.30: **Fabrizio Sestini** (EC/DG Connect)

10.30 – 11.00: **Sakari Taipale** (University of Jyväskylä, FI) "European perceptions of robots and related implications for the policies of the social"

11.00 – 11.30: Coffee break

11.30 – 12.00: **Atsuo Takanishi** (Waseda University, JP) "Some Aspects of Humanoid Robot Design"

12.00 – 12.30: **Antonio Bicchi** (University of Pisa, IT) "From Social Robots to Societies of Robots"

12.30 – 13.00: **Naomi Baron** (American University Washington D.C., US) "Shall We Talk? Conversing with Humans and Robots"

13.00 – 14.00: Lunch break

14.00 – 16.00: Working Group Session I
Working Group "Challenges" (Maelbeek Room)

Chair: James Katz (Boston University, US)

14.00 – 14.20: **James Katz** (Boston University, US) "Attitudes toward robots suitability for various jobs as affected robot appearance"

14.20 – 14.40: **Matthias Rehm** (Aalborg University, DK) "Culture Aware Robotics"

14.40 – 15.00: **Shuzhi Sam Ge** (National University of Singapore, SG) "Era of Social Robots"

15.00 – 15.20: **Christine Linke** (University of Berlin, DE) "Phenomena of Human-Social Robot-Interaction: The Social Construction of Reciprocity, (Inter-)Subjectivity and Relationship"

15.20 – 16.00: Panel Discussion

Working Group "Perception" (Passage Room)

Chair: Ryad Chellali (Italian Institute of Technology, IT)

14.00 – 14.20: **Maria Bakardjieva** (University of Calgary, CA) "This Bot Hurt my Feelings: Ethics and Politics for Social Bots"

14.20 – 14.40: **Nikhil Bhattacharya** (Institute for Liberal Arts, US) "With Our Technology, In Our Image: A Philosophical Analysis of Social Robots"

14.40 – 15.00: **Charles Ess** (University of Oslo, NO) "Robots and Humans as Virtuous Agents? Core questions and challenges"

15.00 – 15.20: **Michaela Pfadenhauer** (Karlsruhe Institute of Technology, DE) "The Contemporary Appeal of Artificial Companions"

15.20 – 16.00: Panel Discussion

Working Group "Applications" (Salon Room)

Chair: Alessandro Saffiotti (Orebro University, SE)

14.00 – 14.20: **Rytis Maskeliunas** (Kaunas University of Technology, LT) "Gaze tracking based emotional status determination"

14.20 – 14.40: **Timo Kaerlein** (Universität Paderborn, DE) "The robotic moment in mobile media. An inquiry into new intimacies in human-technology relationships"

14.40 – 15.00: **Pelachaud Catherine** (CNRS, FR) "Socio-emotional humanoid agent"

15.00 – 15.20: **Barbara Lewandowska Tomaszczyk and Paul A. Wilson** (University of Lodz, PL) "Affective robotics - modelling and testing cultural prototypes "

15.20 – 16.00: Panel Discussion

16.00 – 16.30: Coffee break

16.30 – 18.30: Working Group Session II

Working Group "Challenges" (Maelbeek Room)

Chair: James Katz (Boston University, US)

16.30 – 16.50: **Amparo Lásen** (University Complutense of Madrid, ES) "The Shared Agency between People and Technologies in the Context of the 'Affective Paradox' "

16.50 – 17.10: **Maria Teresa Riviello** (Second University of Naples and IIASS, IT) "A Cross-Cultural Study on the Effectiveness of Visual and Vocal Channels in Transmitting Dynamic Emotional Information"

17.10 – 17.30: **Maria Koutsombogera** (Institute for Language And Speech Processing, EL) "Developing resources of social interactions"

17.30 – 17.50: **Stefan Benus** (Constantine The Philosopher University, SK) "Social aspects of entrainment in spoken interactions"
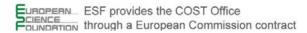
17.50 – 18.30: Panel Discussion

Working Group "Perception" (Passage Room)

Chair: Ryad Chellali (Italian Institute of Technology, IT)

16.30 – 16.50: **Sara Rosenblum** (University of Haifa, IL) "Brain-hand language secrets as reflected through a computerized system"

16.50 – 17.10: **Kimmo Vanni** (Tampere University of Applied Sciences, FI) "Social robotics as a tool for promoting occupational health"

17.10 – 17.30: **Shirley Elprama and An Jacobs** (Vrije Universiteit Brussel, BE) "Robots in the operating room"

17.30 – 17.50: **Elizabeth Broadbent** (The University of Auckland, NZ) "The social and emotional impact of robots in healthcare"

17.50 – 18.30: Panel Discussion

Working Group "Applications" (Salon Room)

Chair: Alessandro Saffiotti (Orebro University, SE)

16.30 – 16.50: **Patrick Law** (The Hong Kong Polytechnic University, HK) "Biomedical Engineering: The case of rehabilitation program in Hong Kong"

16.50 – 17.10: **Rui Loureiro** (Middlesex University, UK) "Social robots in the rehabilitation of cognitive and motor function"

17.10 – 17.30: **Anthony Remazeilles** (Tecnalia Research and Innovation, ES) "Development of mobile robots for providing assistance to the elderly population: experience acquired"

17.30 – 17.50: **Filippo Cavallo** (Scuola Superiore Sant'Anna, IT) "Social Robotics for healthcare applications: the Robot-Era experience"

17.50 – 18.10: **Renaud Ronsse** (Université Catholique de Louvain, BE) "Primitive-based entrainment in upper- and lower-limb periodic movement assistance by using adaptive oscillators"

18.10 – 18.30: Panel Discussion

Wednesday 12 June 2013
International Press Centre, Rue de la Loi 155, 1000 Brussels (BE)

8.30 – 9.00: Workshop Registration

9.00 – 11.00: Plenary Session (Polak Room) - Chair: Anna Esposito (University of Naples, IT)

9.00 – 9.30: **Satomi Sugiyama** (Franklin College Switzerland, CH) **and Jane Vincent** (University of Surrey, UK) "Consideration of the mobile device as a form of social robot"

9.30 – 10.00: **Kerstin Dautenhahn** (University of Hertfordshire, UK) "Social robotics and real world applications – an interdisciplinary perspective"

10.00 – 10.30: **Anniina Huttunen** (Finnish Ministry of Education and Culture, FI) "Does Intelligence Matter? - Legal Ramifications of Intelligent Systems"

10.30 – 11.00: **David Cohen and Mohamed Chetouani** (University Pierre and Marie Curie, FR) "Social Signal Processing in Developmental Psycho-Pathology"

11.00 – 11.30: Coffee break

11.30 – 13.30: Working Group Session III
Working Group "Challenges" (Passage Room)

Chair: Harmeet Sawhney (Indiana University, US)

11.30 – 11.50: **Carlo Nati** (Education 2.0, IT) "Cad software to introduce robotic design process at school"

11.50 – 12.10: **Chung Tai Cheng** (The Hong Kong Polytechnic University, HK) "The technologicalization of education in China and the case study of Home-School Communication System"

12.10 – 12.30: **Michele Viel and Giovanni Ferrin** (University of Udine, IT) "Taming social robots through playfulness and do it yourself: children in action"

12.30 – 12.50: **Linda Giannini** (MIUR, IT) "Pinocchio 2.0, robot and other stories"

12.50 – 13.30: Panel Discussion

Working Group "Perception" (Maelbeek Room)

Chair: Guglielmo Tamburrini (University of Naples "Federico II", IT)

11.30 – 11.50: **Nadia Berthouze** (University College London, UK) "Body Movement and touch behaviour as means to recognize and enhance affective experience"

11.50 – 12.10: **Marcin Skowron** (Austrian Research Institute for Artificial Intelligence, AT) "From Virtual to Robot Bartender: insights from the affective dialogue system"

12.10 – 12.30: **Anna Esposito** (Second University of Naples and IIASS, IT) "Emotional expressions: Communicative displays or psychological universals?"

12.30 – 12.50: **Kristrún Gunnarsdóttir** (Lancaster University, UK)

12.50 – 13.30: Panel Discussion

Working Group "Applications" (Salon Room)

Chair: Sara Rosenblum (University of Haifa, IL)

11.30 – 11.50: **Hicham Atassi** (Brno University of Technology, CZ) "An Autonomous intelligent system for Call Centres Surveillance and Assessment"

11.50 – 12.10: **Tatsuya Matsui** (Flower Robotics Inc., JP) "A design approach for the robots to be accepted in the society"

12.10 – 12.30: **Claudia Pagliari** (University of Edinburgh, UK) "Roles, relationships and rights in interactions between real and virtual humans: insights and implications from a study on Avatar-supported eHealth"

12.30 – 12.50: **Vanessa Evers** (University of Twente, NL) "Human Robot Co-existence"

12.50 – 13.30: Panel Discussion

13.30 – 14.30: Lunch break

14.30 – 16.30: Working Group Session IV
Working Group "Challenges" (Passage Room)

Chair: Harmeet Sawhney (Indiana University, US)

14.30 – 14.50: **Ryad Chellali** (Italian Institute of Technology, IT) "The Social Robot: myths, reality and perspectives"

14.50 – 15.10: **Raul Pertierra** (Manila University, PH) " The person in the machine: the machine in the person"

15.10 – 15.30: **Joachim Hoeflich and Afifa El Bayed** (University of Erfurt, DE) "The Acceptance of

Social Robots in Today's Germany and its Prospects"

15.30 – 15.50: **Nello Barile** (Iulm, University of Milan, IT) "The automation of taste: anthropological effects of Shazam and another apps used as search engines in the everyday life"

16.10 – 16.30: Panel Discussion

Working Group "Perception" (Maelbeek Room)

Chair: Guglielmo Tamburrini (University of Naples "Federico II", IT)

14.30 – 14.50: **Davide Fornari** (Supsi University of Applied Sciences and Arts of Southern Switzerland, CH) "Face as interface: anthropomorphic and zoomorphic artefacts"

14.50 – 15.10: **Takaaki Kuratate** (Technical University of Munich, DE) "Mask-bot: a retro-projected talking head for social interaction media applications"

15.10 – 15.30: **Carl Vogel** (Trinity College Dublin, IE) "Intending no offence"

15.30 – 15.50: **Etienne Burdet** (Imperial College London, UK) "Adaptive nature of human-human interaction"

15.50 – 16.10: **Peter Sinčák** (Technical University of Kosice, SK)

16.10 – 16.30: Panel Discussion

Working Group "Applications" (Salon Room)

Chair: Sara Rosenblum (Haifa University, IL)

14.30 – 14.50: **Milan Gnjatović** (University of Novi Sad, SR) "The Child, the Therapist, and the Robot: Adaptive Dialogue Management in Three-Party Interaction"

14.50 – 15.10: **Sonya Meyer** (Haifa University, IL) "Social Robots as possible Celiac Disease management mediators for supporting adherence to a healthy lifestyle"

15.10 – 15.30: **Hideki Kozima** (Miyagi University, JP) "Social robot for autism therapy"

15.30 – 15.50: **Frano Petric** (University of Zagreb, HR) "Application of Humanoid Robots in Diagnostics of Autism"

15.50 – 16.30: Panel Discussion

16.30 – 18.00: Social Robots Exhibition (opened by private reception)

Thursday 13 June 2013
International Press Centre, Rue de la Loi 155, 1000 Brussels (BE)

8.30 – 9.00: Workshop Registration

9.00 – 10.30: Plenary Session (Polak Room) - Chair: Thierry Keller (Tecnalia Research & Innovation, ES)

9.00 – 9.30: **Paolo Dario** (Scuola Superiore Sant'Anna, IT) "Robot Companions for Citizens: a Vision to Address Societal Challenges and to Improve Quality of Life"

9.30 – 10.00: **Aude Billard** (École Polytechnique Fédérale de Lausanne, CH) "Issues when transferring knowledge from humans to robots"

10.00 – 10.30: **Alessandro Vinciarelli** (University of Glasgow, UK) "Social Signal Processing"

10.30 – 11.00: Coffee break

11.00 – 13.00: Working Group Session V

Working Group "Challenges" (Maelbeek Room)

Chair: Maria Bakardjieva (University of Calgary, CA)

    11.00 – 11.20: **Alessandro Saffiotti** (Orebro University , SE) "Towards a human robots-environment ecosystem: opportunities and challenges"

    11.20 – 11.40: **António Brandão Moniz** (Karlsruhe Institute of Technology, DE) "Intuitive interaction between humans and robots in industrial environments: the social robotics role"

    11.40 – 12.00: **Juha Röning** (University of Oulu, FI)

    12.00 – 12.20: **Costanza Navarretta** (University of Copenhagen, DK) "The annotation and use of multimodal corpora for modelling believable social robots"

    12.20 – 13.00: Panel Discussion

Working Group "Perception" (Passage Room)

Chair: Valèria Csèpe (Hungarian Academy of Sciences, HU)

    11.00 – 11.20 **Valéria Csépe** (Hungarian Academy of Sciences) "Augmented reality and assisted perception"

    11.20 – 11.40 **Angelo Cangelosi** (Plymouth University, UK) "Embodied Language Learning in Human-Robot Interaction"

    11.40 – 12.00 **Agnieszka Wykowska** (Ludwig Maximilians Universität, DE) "Cognitive- and social neuroscience for social robotics - how the present challenges can tell us where to go in the future"

    12.00 – 12.20 **Karola Pitsch** (Bielefeld University, DE) "Social Learning from an Interactional Perspective. The role of a robot's feedback in tutoring situations in human-robot-interaction"

    12.20 – 13.00: Panel Discussion

Working Group "Applications" (Salon Room)

Chair: Alicia Casals (Universitat Politècnica de Catalunya, ES)
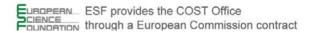
    11.00 – 11.20: **Thierry Keller** (Tecnalia Research & Innovation, ES) "Robotics for Neurorehabilitation: Current challenges and approaches"

    11.20 – 11.40: **Alícia Casals** (Universitat Politècnica de Catalunya, ES) "Social Acceptance in robotics for health"

    11.40 – 12.00: **Peter Friedland** (Peter Friedland Consulting, US) "Developing Trust in Human-Machine Interaction"

    12.00 – 12.20: **Marcos Faundez Zanuy** (Escola Universitaria Politecnica de Mataro, ES) "Xnergic: a Tecnocampus initiative to promote engineering vocations"

    12.20 – 13.00: Panel Discussion

13.00 – 14.00: Lunch break

14.00 – 15.30: Summaries by Working Groups' Chairs - Chair: James Katz (Boston University, US)

15.30 – 16.00: Conclusions and Follow-Up - Chair: Leopoldina Fortunati (University of Udine, IT)

Organising Committee

- **Leopoldina Fortunati** (University of Udine, IT), Head of the Organising Committee
- **Anna Esposito** (Second University of Naples and IIASS, IT)
- **Thierry Keller** (Tecnalia Research & Innovation, ES)
- **Dina Simunic** (University of Zagreb, HR)
- **Satomi Sugiyama** (Franklin College, CH)
- **Bartolomeo Sapio** (Fondazione Ugo Bordoni, IT)
- **Michaela Pfadenhauer** (Karlsruhe Institute of Technology, DE)

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