

# Social Robotic Telepresence

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## ABSTRACT

Robotic telepresence, also known as telerobotics is a subfield of telepresence whose aim is to increase presence via embodiment in a robotic platform. In particular, robotic telepresence can be an effective tool to enhance social interaction suited to certain groups of users such as the elderly. The aim of this workshop is to address various aspects important for social robotic telepresence which include but are not limited to, (1) the mechanical design, (2) the user interface design, (3) the interaction between the remotely embodied person and the locally embodied person and (4) the perception of social robotic telepresence systems. Furthermore, we are interested in discovering the added value of spatial presence in the context of social telepresence and comparisons between robotic and non-robotic systems are of interest. We welcome contributions concerning results reached from the above mentioned areas of interest, user evaluation and methodologies, as well as reports from the deployment of social robotic solutions into real world contexts.

## Categories and Subject Descriptors

H.m Information Systems; Miscellaneous

## General Terms

Human Factors.

## Keywords

Human-robot interaction, Telepresence.

**Prof. Silvia Coradeschi** is Professor in Information Technology at Örebro University. Her scientific background is in the integration of artificial intelligence in robotic and ambient intelligent systems. Her research has been applied to a number of application areas, including the area of

eldercare and promotion of longer independent living through ambient intelligence. She is actively involved in Robotdalen, Sweden's largest innovation-inrobotics effort, as well as Novamedtech, a regional development fund to promote commercialization of research results in distributed healthcare. On the international level, she has organised RoboCup'99 in Stockholm, has been member of the operative board of Robocup foundation, vice-president of European Coordinating Committee for Artificial Intelligence, and general chair of the 17th European Conference on Artificial Intelligence (ECAI 06 – largest AI conference in Europe). She is main responsible and coordinator of ExCITE (AAL Call2) aiming at enhancing mediated interaction of old users at home through a teleoperated robot.

**Dr. Amy Loutfi** is a senior researcher at the center for applied autonomous sensors systems at Örebro University. She has driven large and longitudinal evaluation studies within human robot interaction, with particular focus on user perspectives of robots integrated in smart home environments. Together with ISTC-CNR she has performed a number of cross culture evaluation studies which compare the views of domestic robotics between elderly in northern and southern Europe. She has experience of workshop organization in a number of workshops in international conferences in robotics which include ICRA 2007 and ICRA 2010 and program committee for ICTAI '07, '09. She is also co-applicant and workpackage leader of in the ExCITE (AAL Call2) project aiming at enhancing mediated interaction of old users at home through a teleoperated robot.

**Annica Kristoffersson** is a Ph.d Student at the Center for Applied Autonomous Sensor Systems. She has a masters of science in media technology and engineering from Linköping University, Sweden. Currently, her main activities focus on ExCITE (AAL Call 2) where she participates in the longitudinal evaluation and study of

social robotic telepresence. She is also involved in Novamedtech, a regional development fund to promote commercialization of research results in distributed healthcare and specifically the ReMOTE project which focusses on integration of health monitoring systems on robotic telepresence devices for domestic use. Since autumn 2010, she is an Associate Editor for Paladyn, Journal of Behavioral Robotics. The journal publishes research on topics broadly related to psychologically inspired robots and other behaving autonomous systems.

**Dr. Gabriella Cortellessa** is a research scientist at ISTC-CNR. Her research spans on Mixed-Initiative Problem Solving, Decision Support Systems, Experimental Methods for evaluating Intelligent Systems, Human-Robot Interaction. In particular her current research focuses on the design, development and evaluation of software/robotic systems interacting with humans. She participated in the RoboCare project ([robocare.istc.cnr.it](http://robocare.istc.cnr.it)), which aimed at developing a software/robotic system for the care of the elderly. Within RoboCare she has conducted studies on the users attitude toward the use of robotic assistive technology. At present she is involved in two EU projects: PANDORA (FP7 ICT&Security) which is developing an innovative training environment for crisis managers and ExCITE (AAL Call2) aiming at enhancing mediated interaction of old users at home through a tele-operated robot. She has been one of the promoters of the SPARK Workshop Series, on Scheduling and Planning Applications held in conjunction with ICAPS, and is in the program committee of IJCAI'09 and ICAPS'09, ECAI'10 and ICAART'11.

**Prof. Kerstin Severinson Eklundh** is a professor in Human-Computer Interaction at the former IPLab, now the HCI group at the Royal Institute of Technology (KTH), Sweden. She has been vice director of the Graduate School for Human-Machine Interaction. Her previous projects which are relevant for the workshop include models for human interaction with mobile service robots, as well as user oriented development of mobile units for disabled persons in office (unstructured and dynamic) environments. Recently she has coordinated KTH's effort in the European projects Cogniron (the cognitive robot companion) and CommRob (Advanced behaviour and high-level multimodal communication with and among robots). She is a member of the editorial board of the International Journal of Human-Computer Studies and the International Journal of Social Robotics.

**URL:**

[www.aass.oru.se/~ali/hri2011ws/](http://www.aass.oru.se/~ali/hri2011ws/)

**TIMES:**

Start: 9:00 am

Morning Break: 11:00am-11:30am

Lunch: 1pm-2pm

Afternoon Break: 4pm-4:30pm

End: 6:00 pm

**LOCATION:** Room BC03