

Matthias Scheutz Tufts University

“ ‘Say it nicely please!’ Beyond Command-Based Natural Language Interactions with Robots”



Wednesday, October 1, 2014
12:00 – 1:30pm
Barus and Holley Room 190

A main goal of human-robot interaction research is to make human-robot interactions as natural as possible. Critically, this includes natural language (NL) interactions, even though NL capabilities were traditionally either not included at all in robotic architectures or at best restricted to simple command-based interfaces.

In this presentation, I will provide an overview of our recent architectural and empirical work in NL-based human-robot interaction, with focus on the pragmatic aspects of situated NL understanding and generation. In addition to video demonstrations showing our algorithms at work, I will also present results from human subject experiments that hint at the complex interplay between linguistic and non-linguistic aspects of human-robot interactions.

Matthias Scheutz received degrees in philosophy (M.A. 1989, Ph.D. 1995) and formal logic (M.S. 1993) from the University of Vienna and in computer engineering (M.S. 1993) from the Vienna University of Technology (1993) in Austria. He also received the joint Ph.D. in cognitive science and computer science from Indiana University in 1999. Matthias is currently a full professor of computer and cognitive science in the Department of Computer Science at Tufts University. He has over 200 peer-reviewed publications in artificial intelligence, artificial life, agent-based computing, natural language processing, cognitive modeling, robotics, human-robot interaction and foundations of cognitive science. His current research and teaching interests include multi-scale agent-based models of social behavior and complex cognitive and affective autonomous robots with natural language capabilities for natural human-robot interaction.

This presentation is part of the HCRI's Multidisciplinary Speaker Series that showcases diverse and groundbreaking research undertaken by leaders in science, technology, design, and impact of robotics on society.