

# “Counting Electric Sheep” Human-Robot Interaction in a Nutshell

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Research Seminar Proposal

## Abstract

This talk presents an overview of the emerging research domain of human-robot interaction (HRI). Robots are shifting from manufacturing machines that require and enable little interaction with humans, to autonomous entities that can tackle various tasks and are more aware of their environment and their users. The interdisciplinary HRI research effort explores the design space of new interaction techniques between humans and robots. I will present a survey of cutting edge research in HRI, pointing to a very possible future of partnership between humans and robots. The discussion will include some of the more intriguing aspects of current HRI research, such as synthetic emotions and sociable robots. The talk will touch on some current and near term HRI applications, and on some of the projects my students and I are pursuing at the University of Calgary's Interactions Lab.

## Bio

I'm faculty with the University of Calgary's Computer Science Department since 2004, prior to that I was Faculty with the Human Interface Engineering Lab at Osaka University (2003) and I am a frequent visiting professor with Tohoku University's Interactive Content Design Lab in Sendai, Japan. My Ph.D. is from the University of Alberta (2003) and both my M.Sc. (1997) and B.Sc. (1990) are from Ben-Gurion University, Israel. Between 1991 and 1998 I was a senior researcher and research director with several Israeli R&D industry labs. Since 2004 I am co-running the University of Calgary's Interactions Lab, together with Dr. Sheelagh Carpendale, Dr. Saul Greenberg and Dr. Anthony Tang. Our lab has around 30 students and researchers and I am directing a smaller research group, called uTouch, within the Interactions Lab, pursuing research on interaction with physical objects and entities: human-robot interaction (HRI), tangible user interfaces, physical interaction, mixed reality and computer game interfaces. I am currently the Director of the University of Calgary's Computational Media Design (CMD) Graduate Program, and over the last decade I supervised more than 40 research students.