

*40<sup>th</sup> Anniversary Celebration – Alumni Speaker Series*

*presents*

*Dr. Reid Simmons*

*Carnegie Mellon University*



**“Social Robots”**

As robots become more ubiquitous in society, they will have to learn to interact with people in socially acceptable ways. For the past six years, we have been developing techniques that enable robots to behave according to social conventions, both conversationally and spatially. The techniques involve explicit modeling of human behavior and social conventions, probabilistic reasoning about situations and the intentions of people, and explicit representation of affect and mutual interaction. We have developed several robots that embody these ideas, including GRACE, a robot that attended the National Conference on Artificial Intelligence, the roboceptionist, a joint project with the School of Drama, and a robot that dances rhythmically with children. This talk will describe our efforts in this area, focusing on the techniques that we have developed and highlighting the gap that still remains between the behavior of our robots and true social interaction.

Reid Simmons is a Research Professor in the School of Computer Science at Carnegie Mellon University. He earned his B.A. degree in 1979 in Computer Science from SUNY at Buffalo, and his M.S. and Ph.D. degrees from MIT in 1983 and 1988, respectively, in the field of Artificial Intelligence. Since coming to Carnegie Mellon in 1988, Dr. Simmons' research has focused on developing self-reliant robots that can autonomously operate over extended periods of time in unknown, unstructured environments. This work involves issues of robot control architectures, probabilistic planning and reasoning, monitoring and fault detection, and robust indoor and outdoor navigation. More recently, Dr. Simmons has focused on the areas of human-robot social interaction, coordination of multiple heterogeneous robots, and formal verification of autonomous systems. Over the years, he has been involved in the development of over a dozen autonomous robots.

**Thursday, March 29, 2007, at 3:30 – 4:30 pm**  
**Student Union Theatre (106/201)**  
**University at Buffalo (North Campus)**

This talk is free and open to the public. Refreshments after the talk in 224 Bell Hall.  
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