
Computer Science Colloquium

Social Robots, Social Development, and Social Disorders

Prof. Brian Scassellati
Computer Science Department, Yale University

Wednesday, 19 April 2006
Olsen 311
Refreshments at 2:30, Talk from 3:00-4:00

Social robots recognize and respond to human social cues with appropriate behaviors. These robots are unique tools in the study of human social development, and have the potential to play a critical role in the diagnosis and treatment of social disorders such as autism.

In the first part of this talk, I present four vignettes on what the practicality of constructing social robots has taught us about human social development. These vignettes cover topics of perceptual development (vocal prosody), sensorimotor development (declarative and imperative pointing), linguistic development (learning pronouns), and cognitive development (self-other discrimination).

The second half will focus on the application of social robots to the diagnosis and therapy of autism. Autism is a pervasive developmental disorder that is characterized by social and communicative impairments. Based on three years of integration and immersion with a clinical research group which performs more than 130 diagnostic evaluations of children for autism per year, I will discuss how social robots will impact the ways in which we diagnose, treat, and understand autism.

Bio: Brian Scassellati is an assistant professor of Computer Science at Yale University. His research focuses on the construction of humanoid robots that interact with people using natural social cues. These robots are used both to evaluate models of how infants acquire social skills and to assist in the diagnosis and quantification of disorders of social development (such as autism). He is an associate editor of the International Journal of Humanoid Robotics and the program chair for the upcoming 6th International Conference on Development and Learning. In 2003, he was awarded an NSF CAREER award.