

POMONA COLLEGE

COMPUTER SCIENCE COLLOQUIUM

Emotions in Human-Agent Interactions Jonathan Gratch University of Southern California

Abstract - The last decade has seen an explosion of interest in the role emotion plays in human cognition and social interaction. Recent findings in psychology and neuroscience have emphasized emotion's distinct and complementary role in human cognition when contrasted with the rational conceptions of human thought such as decision theory, game theory and logic. Rather than viewing emotion as a distortion of such rational systems, contemporary research emphasizes emotion's functional role and has worked out a number of the mechanisms through which emotion helps an organism adapt to its physical and social environment. Within computer science, there is growing interest in exploiting these findings to expand classical rational models of intelligent behavior. In this talk, I will review current findings on the intrapersonal and interpersonal function of emotion and its potential role in enhancing human-computer interaction. I will then discuss our attempts to model these functions within the context of live-like interactive characters that can engage in socio-emotional interactions with human users for training and education.

Dr. Jonathan Gratch (<http://www.ict.usc.edu/~gratch>) is the Associate Director for Virtual Humans Research at ICT and a research associate professor of Computer Science at the University of Southern California. He completed his Ph.D. in Computer Science at the University of Illinois in Urban-Champaign in 1995 with a focus on machine learning, planning and cognitive science. His research addresses the creation of virtual humans (artificially intelligent agents embodied in a human-like graphical body) and cognitive modeling. He studies the relationship between cognition and emotion, the cognitive processes underlying emotional responses, and the influence of emotion on decision making and physical behavior. He has worked on a number of applications of virtual agents, including considerable experience in the research and development of automated and semi-automated agents in training. Dr. Gratch is the Vice President of the HUMAINE Association for Emotion and Human-Computer Interaction, a member of the editorial board of the journal Emotion Review, and the author of over 100 technical articles.

Thursday, December 6th at 4:15

Rose Hills Theater – Smith Campus Center

Pomona College

Refreshments available at 4:00