

May 5, 2009

Humans and Humanoids - Perspectives for Intelligent Interactive Robots

Jochen Steil

CoR-Lab
Bielefeld University

ABSTRACT OF THE TALK

We feature current work of CoR-Lab, the Bielefeld Research Institute for Cognition and Robotics, which in cooperation with the Honda Research Institute Europe investigates fundamentals of human cognition and approaches to make robots, including the humanoid robot ASIMO, more intelligent. We give an exemplary overview on projects of the CoR-Lab Graduate School and present in some detail projects on efficient online movement learning by generative recurrent neural networks, social learning in parent-infant interaction, and on investigating surprise in human-robot interaction by means of a brain-machine interface. Altogether we claim that humanoid robots apart from being fascinating technology in themselves provide entirely new means for investigating human and machine cognition in interaction.