

SOCIAL ROBOTS IN PUBLIC SPACE

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Social robots are coming to appear in our daily lives. Yet, it is not as easy as one might imagine. We developed a human-like social robot, Robovie, and studied the way to make it serve for people in public space, such as a shopping mall. On the technical side, we developed a human-tracking sensor network, which enables us to robustly identify locations of pedestrians. Given that the robot was able to understand pedestrian behaviors, we studied various human-robot interaction in the real-world. We faced with many of difficulties. For instance, the robot failed to initiate interaction with a person, and it failed to coordinate with environments, like causing a congestion around it. Toward these problems, we have modeled various human interaction. Such models enabled the robot to better serve for individuals, and also enabled it to understand people's crowd behavior, like congestion around the robot; however, it invited another new problem, robot abuse. I plan to talk about a couple of studies in this direction, hoping to provide an insight about near-future applications, research problems, and ethical issues about the social robots in public space in a near future.