Computer Agents that Interact Proficiently with People

Intelligent agents that can interact proficiently with people can be used for training people in complex activities such as negotiation, supporting their activities and even replace them, for example, by negotiating on their behalf. The inclusion of people presents novel problems for the design of automated agents’ strategies. People do not adhere to the optimal, monolithic strategies that can be derived analytically. Their behavior is affected by a multitude of social and psychological factors. In this talk I will show how combining machine learning techniques for human modeling with human behavioral models, formal decision-making and game theory approaches enables agents to interact well with people. Applications include training people in negotiation, training young law enforcement personnel in investigations, automated speech therapists, and agents that support a team of robots and their operator.