

MINDS CDT Webinar



Agent-Human collaboration for increasing users' satisfaction

Sarit Kraus
Professor of Computer Science
Bar-Ilan University
www.cs.biu.ac.il/~sarit

Biography

Sarit Kraus (Ph.D. Computer Science, Hebrew University, 1989) is a Professor of Computer Science at Bar-Ilan University. Her research is focused on intelligent agents and multi-agent systems integrating machine-learning techniques with optimization and game theory methods. In particular, she studies the development of intelligent agents that can interact proficiently with people and with robots. She has also contributed to the research on machine learning, agent optimization, autonomous vehicles, homeland security, adversarial patrolling, social networks and nonmonotonic reasoning.

Abstract

We consider environments where a set of human workers needs to handle a large set of tasks while interacting with human users. The arriving tasks vary: they may differ in their urgency, their difficulty, and the required knowledge and time duration in which to perform them. Our goal is to decrease the number of workers, which we refer to as operators that are handling the tasks while increasing the users' satisfaction. We present automated intelligent agents that will work together with the human operators in order to improve the overall performance of such systems and increase both operators' and users' satisfaction. Examples include home hospitalization environments where remote specialists will instruct and supervise treatments that are carried out at the patients' homes; operators that tele-operate autonomous vehicles when human intervention is needed and bankers that provide online service to customers. The automated agents could support the operators: the machine learning-based agent follows the operator's work and makes recommendations, helping him interact proficiently with the users. The agents can also learn from the operators and eventually replace the operators in many of their tasks.



Wed 3 Nov 2021 13:00 - 14:00 (UK)

[Click here to join the meeting](#)