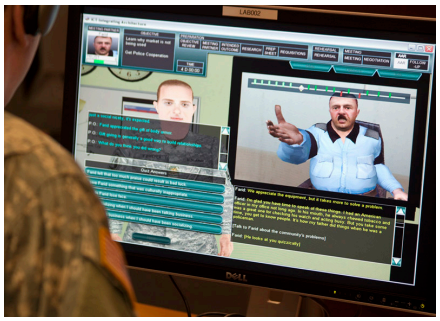
USC Institute for Creative Technologies

Social Simulation



ICT's Social Simulation Lab models and simulates human social interaction, at the group level. Research includes tractable approaches to modeling of theory of mind reasoning and decision-theoretic; descriptive models of human-like decision-making; and automated and data-driven approaches to validate and facilitate authoring of large-scale social simulations.

A core research effort for the lab is the Computational Simulation and Modeling of Society (COSMOS) project, which is focused on developing tools and models for social simulations that can more faithfully model real world social interactions.

COSMOS has been working on a framework, called PsychSim, for modeling and simulating both small - and large - scale social interaction. It models social entities, individuals or groups, as goal-seeking decision-makers that can have beliefs about other entities. PsychSim has been used in a range of transitioned applications such as ICT's UrbanSim and BiLAT projects.

New research directions facilitate the authoring and testing of social simulations to produce a mechanism for giving scenario authors immediate feedback about their content. Thus, instead of relying on time-consuming play-testing with human players for identifying the range of possible outcomes of training scenarios, our system will be able to provide authors with an approximation of that profile on its own.

Due to the increased use of simulation methods in the study of social systems, our efforts aim to benefit fundamental research in both social science and computer science while leading to improved simulations.

At the University of Southern California Institute for Creative Technologies leaders in artificial intelligence, graphics, virtual reality and narrative advance low-cost immersive techniques and technologies to solve problems facing service members, students and society.

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