People, Spaces, Stories, and Play

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10/31/2017 at 10:30 am
CoRE A 301

Abstract

Our research lies at the intersection of artificial intelligence, visual computing, and human-computer interaction, with a mission to develop intelligent visual interfaces to empower content creators. In this talk, I will describe our ongoing efforts towards this goal in the following four areas:

People: We are developing computational models of human movement that captures the underlying complexity inherent in bipedal locomotion as well as the aggregate dynamics of large crowds.

Spaces: We present a user-in-the-loop method for exploring optimal designs of environments, which account for how people use a space. Our system does not replace, but empowers designers by deeply integrating into existing pipelines to help them explore the complex solution space of designs for human utilization.

Stories: We are developing intelligent, accessible, visual interfaces to allow anyone to create their own digital stories, and to transform traditionally passive experiences into immersive interactive experiences, while preserving the essence of the original narrative.

Play: I will describe our ongoing efforts in developing serious games as a platform to harness computational intelligence and human computation, with applications in the study of collective behavior, crowd management, and architectural design.

Bio

Mubbasir Kapadia is an Assistant Professor in the Computer Science department at Rutgers University. Previously, he held positions at Disney Research Zurich and the Human Modeling and Simulation Lab at University of Pennsylvania. He was the project lead on the United States Army Research Laboratory (ARL) funded project Robotics Collaborative Technology Alliance (RCTA). He received his PhD in Computer Science at University of California, Los Angeles. Kapadia has received funding for his research from NSF and DARPA.
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