CALL FOR **PAPERS**

ADS'17

Agent Directed Simulation Symposium

Spring Simulation Multi-conference 2017

APRIL 23 - 26, 2017

Virginia Beach, VA

Organizing Committee

General Chair: **Yu Zhang**, yzhang@trinity.edu

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Agent-directed Simulation (ADS) Symposium is the premier platform to explore all three aspects of the synergy of simulation and agent technologies. Hence, it has a special place within simulation and agent conferences, including agent-based (social) simulation conferences. The purpose of the ADS symposium is to facilitate dissemination of the most recent advancements in the theory, methodology, application, and toolkits of agent-directed simulation.

Agent-directed simulation is comprehensive in the integration of agent and simulation technologies, by including models that use agents to develop domain-specific simulations, i.e., agent simulation (this is often referred to as agent-based simulation -when other two important aspects are not considered), and by also including the use of agent technology to develop simulation techniques and toolkits that are subsequently applied, either with or without agents. Hence, agent-directed simulation consists of three distinct, yet related areas that can be grouped under two categories as follows:

1. Simulation for Agents (agent simulation): simulation of agent systems in engineering, human and social dynamics, military applications etc.
2. Agents for Simulation (which has two aspects): agent-supported simulation deals with the use of agents as a support facility to enable computer assistance (in front-end as well as back-end interfaces) in problem solving or enhancing cognitive capabilities; and agent-monitored simulation that focuses on the use of agents for the generation of model behavior in a simulation study.

Topics

- Theory/methodology:
  - High-level and declarative agent specification languages for modeling and simulation.
  - Agent programming and simulation modeling languages.
  - Distributed simulation for multi-agent systems.

- Formal models of agents and agent societies.
- Advanced agent features for agent-directed simulation: e.g.,
  - Holonic agents for cooperation and coopetition modeling and simulation.
  - Agents with personality, agents with dynamic personality, agents with emotions, agents having different types of intelligence such as emotional intelligence, agents with multi-intelligence.
  - Influence of cultural backgrounds in agent-directed simulation.
  - Agents with several types of understanding abilities such as multivision and switchable understanding abilities,
  - Trustworthy agents, and moral agents in simulation.
  - Agent-based simulation to monitor multi-simulation studies.
  - Agents in design and monitoring of simulation experiments and analysis of results.
  - Verification, validation, testing; quality assurance; as well as failure avoidance in agent-directed simulations.

- Technology, tools, toolkits, and environments:
  - Agent infrastructures and supporting technologies (e.g., interoperability, agent-oriented software engineering environments).
  - Modeling, design, and simulation of agent systems based on service-oriented technologies, pervasive computing, web-services, grid computing, autonomic computing, ambient intelligence.
  - Agent architectures, platforms, and frameworks.
  - Standard APIs for agent simulation programming.
- Applications:
  - Simulation modeling of agent technologies at the organization, interaction (e.g., communication, negotiation, coordination, collaboration) and agent level (e.g., deliberation, social agents, computational autonomy).
  - Application of agent simulations in various areas such as biology, business, commerce, economy, engineering, environment, individual, group, and organizational behavior, management, simulation gaming/training, social systems.
  - Conflict management simulation with holonic agents.
  - Modeling and simulation of emergence.

Submission Guidelines

Contributed papers are maximum of 12 pages long, with a minimum of 6 pages, with single column format. If accepted and presented at the conference papers will be submitted to the ACM Digital Library. Papers must not have appeared before or be pending in a journal or conference with published proceedings, nor may they be under review or submitted to another forum during SpringSim'17 review process. It is also possible to submit to the Work in Progress (WIP) or Posters tracks; more details will be announced on the website (http://www.scs.org/springsim). A submission may be rejected for paper presentation, but it may be suggested for submission and presentation as a work in progress or poster. At least one author must register and present the paper/WIP/poster at the symposium.

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All submissions will be peer reviewed and feedback will be provided.

Please use the paper template provided in the conference website. The use of the template will facilitate the prompt proceedings compilation and submission to the ACM Digital Library.

Important Dates

Workshop Proposal: September 30, 2016
Abstract Submission: October 15, 2016
Abstract Feedback: October 30, 2016
Full paper Submission: December 15, 2016
Notification of Acceptance: January 31, 2017
Camera-ready Paper: February 20, 2017