## Seminar



## Intelligent Narrative-Centered Learning Environment

**Abstract.** Adaptive learning technologies offer significant promise for bringing about fundamental improvements in education and training. For the past decade we have been investigating a family of intelligent game-based learning environments focusing on narrative-centered learning and integrating intelligent tutoring systems with game technologies. Research on these narrative-centered learning environments seeks to combine the inferential capabilities of user-adaptive systems and intelligent user interfaces with the rich gameplay supported by game engines. This line of investigation has the dual objectives of increasing learning effectiveness and promoting student engagement. In this talk we will introduce the principles motivating the design of narrative-centered learning environments, describe their roots in intelligent interactive narrative, and discuss ongoing work exploring their role in formal settings (K-12 schools, training) and informal settings.

**Biography**. Dr. James C. Lester is a Distinguished Professor of Computer Science and Director of the Center for Educational Informatics at North Carolina State University. He is a AAAI Fellow. His research centers on adaptive learning technologies that utilize AI to create learning experiences that are designed to be both highly effective and highly engaging. He is the author of more than two hundred publications, primarily in the area of AI technologies for education. His research program has been supported by the National Science Foundation (NSF), the National Institutes of Health (NIH), the Army Research Laboratory (ARL), DARPA, the National Institute of Standards and Technology (NIST), and the Social Sciences and Humanities Research Council of Canada (SSHRC). Additional support has been provided by the SAS Institute, the William and Flora Hewlett Foundation, EDUCAUSE, and the Bill & Melinda Gates Foundation.

Dr. Lester has served as Editor-in-Chief of the International Journal of Artificial Intelligence in Education. He is the recipient of the National Science Foundation CAREER Award and has received the Best Paper Awards at the World Conference on Artificial Intelligence in Education, the ACM International Conference on Intelligent User Interfaces, the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment, and the International Conference on User Modeling, Adaptation, and Personalization. His foundational work on pedagogical agents was recognized with the 2017 IFAAMAS Influential Paper Award by the International Federation for Autonomous Agents and Multi-Agent Systems.



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