Invited Speaker

Dr. James Lester
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Expressive NLG for Next-Generation Learning Environments: Language, Affect, and Narrative

Abstract

Recent years have seen the appearance of adaptive learning technologies that offer significant potential for bringing about fundamental improvements in education. A promising development in this arena is the emergence of narrative-centered learning environments, which integrate the inferential capabilities of intelligent tutoring systems with the rich gameplay supported by commercial game engines. While narrative-centered learning environments have demonstrated effectiveness in both student learning and engagement, their capabilities will increase dramatically with expressive NLG. In this talk we will introduce the principles motivating the design of narrative-centered learning environments, discuss the role of NLG in narrative-centered learning, consider the interaction of NLG, affect, and learning, and explore how next-generation learning environments will push the envelope in expressive NLG.

Biography

Dr. James Lester is a professor Department of Computer Science North Carolina State University. He received the B.A. (Highest Honors), M.S.C.S., and Ph.D. Degrees in Computer Science from the University of Texas at Austin and the B.A in History from Baylor University. A member of Phi Beta Kappa, he has served as Program Chair for the ACM conference on Intelligent User Interfaces (2001), Program Chair for the International Conference on Intelligent Tutoring Systems (2004), Conference Co-Chair for the International Conference on Intelligent Virtual Agents (2008), and on the editorial board of *Autonomous Agents and Multi-Agent Systems* (1997-2007). His research focuses on intelligent tutoring systems, computational linguistics, and intelligent user interfaces. It has been recognized by several Best Paper awards. His research interests include intelligent game-based learning environments, computational models of narrative, affective computing, creativity-enhancing technologies, and tutorial dialogue. He is Editor-In-Chief of the *International Journal of Artificial Intelligence in Education*.