

- 2 Michael Treanor, Bryan Blackford, Michael Mateas, Ian Bogost. *Game-o-matic: Generating videogames that represent ideas*. In Procedural Content Generation Workshop at the Foundations of Digital Games Conference, 2012.
- 3 Michael Cook, Simon Colton, Azalea Raad, Jeremy Gow. *Mechanic miner: Reflection-driven game mechanic discovery and level design*. In Proceedings of Applications of Evolutionary Computation, volume 7835, LNCS, 284–293, 2013.
- 4 Amy K. Hoover, William Cachia, Antonios Liapis, Georgios N. Yannakakis. *AudioInSpace: A Proof-of-Concept Exploring the Creative Fusion of Generative Audio, Visuals and Gameplay*. In Proceedings of Evolutionary and Biologically Inspired Music, Sound, Art and Design (EvoMusArt), 2015.
- 5 Hugo Liu, Push Singh. *ConceptNet – A Practical Commonsense Reasoning Tool-Kit*. BT Technology Journal 22, 4, 211–226, 2004.

3.6 Believable Characters

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The goal of believable characters in computer games (and other media) is to achieve dramatic believability. In other words, “audiences do not pay for reality.” This task group considered two views of the problem of creating dramatically believable characters, as has been considered in film, theater, and academic games research in decades prior: the requirements for “believable behavior” and the outstanding issues in computational architectures for creating said behavior.

As a driving example, we considered a specific dramatic scene of “asking someone out at a bar” and what perceivable individual and social cues were related to the dramatic content of the scene. These externally visible cues included: gaze, feeling, posture, proxemics, dialogue, and action selection & execution. The internal drives that could therefore enable these cues in the scene are functions like: anxiety, a theory of mind, a concept of social contract & cultural norms, character histories, and idiomatics.

The concept of procedural idiomatics seemed to be an avenue of particular interest. Within a system that explores the “asking out on a date” scene (or, conversely, the “Little Red Riding Hood” story that has been a prevalent example story in interactive narrative systems), one could consider automatically reasoning about narrative discourse, genre conventions and tropes, character archetypes, and character status as a means of exploring the scene in dramatically believable fashion with highly different dramatic results.

In terms of architectures, there are a number of important outstanding issues. One important issue is the mid-level consistency problem: arbitrating between high-level plans and low-level action selection so as to avoid trashing behavior. The authorial consistency problem is a related issue. While many character architectures can produce consistent and intelligent behavior within a given character, and high level narrative sequencers such as beat systems and drama managers can coordinate long-term narrative consistency, coordinating between the two systems in a way that produces sensible behavior is difficult. Finally, there is a problem with achieving thematic consistency: preventing low-level systems from choosing locally rational dramatically inappropriate action, such as a Sims character washing the dishes immediately after the death of a loved one.