

Generative Character Conversations for Background Believability and Storytelling

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OVERVIEW

We have developed a videogame dialogue manager that, when fed onto itself, offers a nice authorial affordance: the ability to trigger generative, procedural conversations among non-player characters (NPCs). By feeding the system onto itself, we mean that NPCs converse with one another by virtue of the same dialogue manager—that is, a single system selects dialogue for both conversants using the same policies for turn-taking and content selection. This makes such conversations fully procedural (as opposed to branching dialogue; Freed, 2014) and allows them to play out automatically, with no need for player input. While our dialogue manager is described at length elsewhere (Ryan et al., 2016), in this short paper we will discuss how we plan to use it for background believability and storytelling in the game that houses it, *Talk of the Town* (Ryan et al., 2015). For a video demonstration of this system, see http://users.soe.ucsc.edu/~jor/sbg2016_demo.

Background Believability

We plan to use our dialogue manager to bolster *background believability*, meaning the social believability of background characters. In *Talk of the Town*, these will be NPCs whose daily routines have taken them to wherever the player is currently located. Instead of populating such locales with listless NPCs who wait silently for the player to engage them in conversation—a familiar scene in videogames—NPCs will engage in autonomous conversation with one another. Specifically, we plan for dialogue to be displayed using a *speech bubble* trope. While some effort has been dedicated to the lightweight simulation of non-verbal conversational behavior for background believability (Jan, 2012; Gillies et al., 2010), the rendering of such interaction in fully realized dialogue may be a unique contribution.

Storytelling

Beyond supporting background believability, we plan to utilize autonomous NPC conversations as a storytelling device. Each *Talk of the Town* gameworld is simulated for over a century of diegetic time prior to gameplay (Ryan and Mateas, in press). This yields an abundance of emergent narrative material that could be expressed to the player through conversations among NPCs. Here, we plan to utilize the notion of *conversational goals* (Ryan et al., 2016) to specify that NPCs pursue goals related to our authorial aims—for instance, recalling past events or exchanging gossip. Critically, we plan for information related to the central event underpinning gameplay—the death of someone in the town (Ryan et al., 2015)—to be expressed in this way. Player eavesdropping on nearby NPCs (by reading the speech bubbles that the characters emit in real time) could even become a core gameplay mechanic. This device relates to environmental storytelling—or more aptly, Fernandez-Vara’s refinement, *indexical storytelling* (Fernandez-Vara, 2011)—an area for which the utilization of autonomous NPC conversations appears to be novel.

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