NPCs as Social Mediators in Massively Multiplayer Online Games

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Abstract

Previous research demonstrates that social experience is a key motivation for continued play in online games. We argue that there is an untapped potential for NPCs to act as social mediators in online games by stimulating social interaction between players. For example, a social mediator NPC could ask in chat, "How is everyone's day?" to encourage conversations between players. We suggest two potential applications for social mediator NPCs in online games by examining social experiences in two contemporary massively-multiplayer online role-playing games (MMOs): Guild Wars 2 and World of Warcraft.

Introduction

Social experience is one of the central motivators for play in online games (Taylor 1999; Steinkuehler and Williams 2006; Nardi and Harris 2006; Ducheneaut, Moore, and Nickell 2007; Afonso and Prada 2009; Xu et al. 2011; Trepte, Reinecke, and Juechems 2012; Dimas and Prada 2013; Crenshaw and Nardi 2014; Tanenbaum, Seif El-Nasr, and Nixon 2014; O'Connor et al. 2015). Research on social believability focuses on designing NPCs that function as social agents to cultivate a social experience for players in both single- and multi-player games. We argue that online games could use *social mediator NPCs* to increase sociality in player-to-player interactions. By social mediator NPC, we mean an agent that initiates and facilitates, rather than participates in, social interactions between human players. For example, a social mediator NPC could assist human players in combat while providing conversational cues.

Dabbish et al. (2012) conducted an experimental study of group activities in World of Warcraft using conversational prompts to facilitate player-to-player communication. A confederate player used scripted dialogue such as "Is everybody ready?" or, "What did you do today?" to initiate communication. In comparison to a condition with no communication, confederates who provided conversa-

tional prompts via chat channels significantly increased communication between group members (Dabbish, Kraut, and Patton 2012).

In this study, the confederate player was neither required to perform perfectly in combat, nor to engage in lengthy discussions. She was only required to type prompts from a script and to provide minimal conversation if other players directly addressed her. A social mediator NPC could thus replace her.

Some MMO communities argue that games no longer require players to socialize, which has diminished the overall experience of play (O'Connor et al. 2015; Crenshaw and Nardi submitted). Novel applications of NPCs in games can contribute to sociality and improve the play experience (Afonso and Prada 2009). We argue that it is possible to design social mediator NPCs that encourage sociality in play.

In an exploratory study, we investigate players' social experiences in Guild Wars 2 (ArenaNet 2012) and World of Warcraft (Blizzard Entertainment 2004). We use a qualitative analysis of forum posts from ArenaNet's official Guild Wars 2 forums and Blizzard Entertainment's official World of Warcraft forums. We transcribed posts verbatim, retaining individual spelling, grammar, and punctuation errors in quotes reported here. This analysis is part of a larger study on social affordances and sociality in MMOs (Crenshaw and Nardi submitted).

NPCs as Social Mediators

Could well-designed social mediator NPCs increase sociality, something we know players crave in their gaming experience? Many MMO players are not attuned to the idea of interacting with NPCs and prefer to interact with other players. For example, a player wrote on the Guild Wars 2 forums: "*I used to play MMOs to play with other players and make new friends. These days it feels as if I was playing a single player game with some decent AI.*" A World of Warcraft player wrote: "*Blizzard has killed basically all the social aspects of WoW…other players may as well be AI Bots for all you need to communicate with them.*" Many

players complain about interactions with "AI bots" by which they mean NPCs.

One approach to this problem is designing NPCs to encourage sociality between players, rather than creating social experience solely through NPCs. We provide two examples of social mediator NPCs.

The first is an NPC that contributes to group activities, prompting for communication at certain intervals during an activity. Using a repository of potential dialogue, the social mediator NPC could offer scripted conversational cues such as, "Do you have any suggestions for this dungeon?", "Anyone looking for specific loot here?", and "What are people's plans for the weekend?" The social mediator NPCs would only need to make human players talk to each other to create a social experience. As demonstrated in Dabbish et al.'s research, even minimal conversation is capable of increasing group communication (Dabbish, Kraut, and Patton 2012).

We acknowledge that in this first example a socially believable NPC needs an artificial intelligence (AI) system in place that responds to different conversational contexts. For example, if a social mediator NPC does not receive a reply to a message after a specified amount of time, the AI might comment on how quiet the group is. Programming the NPC to recognize when other players address it in conversations is another way to improve social believability of the NPC. In MMOs, modes of address generally include references to a character's class or name (Crenshaw and Nardi 2014). If the social mediator NPC is a Warrior named Ravenoak, for example, words that indicate a player is addressing the NPC might include: "Warrior," "Raven," "Ravenoak," and "Rav." Though the system we propose is somewhat rudimentary, we argue that there are many ways in which a more advanced AI system could improve this type of social mediator NPC.

The second example would not require as robust an AI system, as the first, but can still provide opportunities for socializing between players. This social mediator NPC would set up contests for players to facilitate conversation. TriviaBot, for example, is a World of Warcraft mod that has been downloaded over 275,000 times ("TriviaBot" 2015). Players on the World of Warcraft forum reported that they organized trivia nights with prizes for winners including gold and items. But most acknowledged that the TriviaBot was primarily for fun: "*Note: Due to the nature of the TriviaBot mod, the awarding of points will be final. Remember - it's only a game, so leave the nerdrage at the door and have fun!*" Here, a social mediator NPC could add to the fun by providing scripted questions, offering feedback for correct answers, and recording players' scores.

Social mediator NPCs could track other social actions as well. For example, an NPC could record and notify players if they had previously played with a group member to initiate communication. Another kind of social mediator NPC could facilitate other small social games within an MMO such as hide-and-go-seek or gambling.

Conclusion

Social mediator NPCs can be designed to provide services that encourage communication between players, but do not function as completely independent social agents. Players enjoy socializing in online games and social mediator NPCs could be a useful way to contribute to online gaming experience by promoting sociality between human players.

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