## Roles People Play: Key Roles that promote participation and learning in Alternate Reality Games

Elizabeth Bonsignore, iSchool, University of Maryland Derek Hansen, Brigham Young University Kari Kraus, iSchool, University of Maryland

**Abstract:** We present an initial framework for roles that are assumed by players and designers of Alternate Reality Games (ARGs) to help promote and sustain participation and collaboration during gameplay. These roles are being derived from analysis of a sample of ARGs and interviews with designers. In particular, we find that approaches designers take to incorporate in-game protagonists (e.g., "protagonists-by-proxy") can influence the ways in which 1) players gain access to disparate narrative and ludic elements within an ARG and 2) designers can integrate collaborative learning opportunities authentically into the narrative and gameplay.

#### Introduction

Identifying key roles that individuals play in learning communities is an important strand of research within education and related fields in the social sciences. Studies that inform our understanding of roles have been applied to improve the design of technologies that support collaboration (Salovaara et al., 2005), to motivate increased civic engagement and community participation (Preece & Shneiderman, 2009), and to structure and analyze online learning communities (e.g., Maor, 2003). Our study aims to extend research on the design and influence of social roles in communities with a focus on the collaborative play system known as the Alternate Reality Game (ARG).

An ARG is a form of transmedia storytelling (Jenkins, 2006) whose narrative context is not bound within any single communications platform or media type; its story fragments can be scattered and hidden in websites, phone calls, text messages, or books (EDUCAUSE, 2009; Kim et al., 2008). ARGs are instances of participatory culture (Jenkins et al., 2006), as they allow players to have a central role in assembling the story world by collecting, connecting, and sharing the narrative across various media. ARGs also engage players in new literacy practices, such as evaluating and sharing information across multiple media, analyzing complex problems, and using new media tools to re-interpret existing content or create new expressions (Bonsignore et al., 2012; Jenkins et al., 2006).

Because of the success with which players collectively operate, ARGs offer designers and researchers insight into effective designs for collaborative methods and tools that support learning (Bonsignore et al., 2012; Kim et al., 2008). In addition, categorizing social roles that players assume during gameplay may enhance our understanding of the ways in which successful problem-solving communities self-organize and offer options for explicitly engineering these roles into future designs.

### Methodological Approach and Initial Keystone Species (Roles)

Our goal is to identify and categorize community roles that exist in ARGs by exploring the question, *How do designers develop key social roles in ARGs to help promote and sustain participation and model positive learn-ing behaviors?* Our analysis includes qualitative coding of transcripts from interviews of 15 game designers and researchers who have experience designing ARGs and similar transmedia works. We also selected a sample of ARGs for analysis based on their 1) level of influence in developing the genre (e.g., *I Love Bees*, followed by over 500,000 players and 3 million viewers); 2) format (e.g., the book-based *Cathy's Book* Series); and 3) purpose (e.g., to raise awareness of a major social issue, like *World Without Oil*).

We identified four types of keystone roles that occur in ARGs. *Keystone species* are essential to the survival of an ecosystem (Nardi & O'Day, 2000). In ARGs, keystone species ensure players become and remain engaged as they progress from launch to endgame. Our analysis of the keystone roles that ARG designers create is also guided by design suggestions for crafting non-player characters (NPCs) that promote higher engagement and participation by players (Isbister, 2006). For example, Isbister (2006) examined NPCs along design dimensions that lead to role formation such as power dynamics and hierarchies (e.g., "minions" are loyal to players) and defining interaction moments (e.g., "minions" mirror player excitement over successes). We divide our keystone roles into two categories:

*Narrative-Centric, Defined Pre-game.* These roles include characters who are integrated into the narrative pregame and whose social roles remain distinct from players throughout gameplay. Two social roles fall within this category: 1) the *Protagonist-by-Proxy* (PbP), a character who is part of the narrative but works as a close ally and informant to the player community (Anderson, 2008); and 2) the *Protagonist-Mentor*, who acts as the ARG's help system and authority figure, often directing the players to complete specific missions and offering training or advice that enables them to do so. The *PbP* discovers the story in tandem with players. Players are presented with the same artifacts and information–such as URLs, copies of documents, photographs, email addresses, or phone numbers– as the in-game protagonist. From an information literacy perspective, the *PbP* can often model productive information-seeking and problem-solving behaviors that the players can emulate.

*Gameplay-Centric, designed for and emerging post-launch.* These ARG social roles may be established and assigned pre-game; however, little narrative content or interaction is developed pre-game. These roles are activated for engagement after the game is launched. Three social roles fall within this category: 1) Community Conduits, who are responsible for dynamically reporting player activity to designers; 2) Planted, Proxy Players who interact with the player community as players, but who are insiders, part of the game-running team. Proxy players essentially act as "super-players," and are charged with welcoming and orienting new players, encouraging players individually to sustain participation, and providing feedback to ARG Community Conduits throughout the game.

#### **Conclusions and Future Work**

We identified several "keystone species", or specific roles and associated behaviors that designers can implement to positively impact player participation in ARGs and similar transmedia storytelling experiences. Designer-crafted social roles can be integrated into the ARG narrative (e.g., Protagonist-by-Proxy) and enacted during game play (proxy-players). These keystone roles hold implications for use in the design and play of ARGs for learning. Educators (in informal or formal education contexts) could act as community leads and encourage more hesitant players. The Protagonist-by-Proxy could be used to model target literacy practices as well as motivate players on a peer-to-peer level. Due to the Protagonist-by-Proxy's narrative-centric role, much of the character's interactive content can be created in advance of game launch and thus offer opportunities for reuse. We are developing a more comprehensive typology of social roles and modes of interaction to design ARGs in learning contexts.

#### References

- Anderson, M. (2008). An interview with JC Hutchins: Personal effects. http://www.argn.com/2008/11/an\_interview\_ with\_jc\_hutchins\_personal\_effects/
- Bonsignore, E., Hansen, D., Kraus, K., & Ruppel, M. (2012). Alternate Reality Games as platforms for practicing 21st-Century literacies. *International Journal of Learning and Media*, *4*(1), 25–54.
- EDUCAUSE. (2009). 7 things you should know about Alternate Reality Games. Washington, DC. http://www.educause.edu/library/resources/7-things-you-should-know-about-alternate-reality-games
- Isbister, K. (2006). *Better game characters by design: A psychological approach*. Boston, MA: Elsevier/Morgan Kaufmann.
- Jenkins, H. (2006). Convergence culture: where old and new media collide. New York Univ. Press.
- Jenkins, H., Clinton, K., Purushotma, R., Robinson, A. J., & Weigel, M. (2006). *Confronting the challenges of participatory culture: Media education for the 21st century*. Chicago, IL: MacArthur Foundation.
- Kim, J. Y., Allen, J. P., & Lee, E. (2008). Alternate reality gaming. Comms. of the ACM, 51(2), 36-42.
- Maor, D. (2003). The teacher's role in developing interaction and reflection in an online learning community. *Educational Media International, 40*(1-2), 127–138.
- Nardi,, B. A., & O'Day, V. L. (2000). Information ecologies: Using technology with heart. Cambridge, MA: MIT Press.
- Preece, J., & Shneiderman, B. (2009). The reader-to-leader framework: Motivating technology-mediated social participation. *AIS Transactions on Human-Computer Interaction*, *1*(1), 13–32.
- Salovaara, A., Johnson, M., Toiskallio, K., Tiitta, S., & Turpeinen, M. (2005). Playmakers in multiplayer game communities: their importance and motivations for participation. Proceedings from Advances in Computer Entertainment Technology (ACE 2005), ACM Press, 334–337.

# Acknowledgments

We thank the designers we interviewed and the NSF for funding NSF IIS-0952567.