

Untangling narrative involvement in serious games and interactive environments

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Interactive games and virtual environments have been viewed as promising vehicles for enabling social change and improving health outcomes in an increasingly digital media environment (Wang & Singhal, 2009). Thus, the study of how to make games that carry serious messages both entertaining and persuasive has been of interest to many researchers (e.g., Ritterfeld, Cody, & Vorderer, 2009 for review). The inclusion of a narrative, in particular, has been viewed as an integral component to serious game development (e.g., Klimmt, 2009; Lu, Baranowski, Thompson, & Buday, in press; Lu, Thompson, Baranowski, Buday, & Baranowski, in press; Wang & Singhal, 2009), however, a clear framework explicating narrative persuasion in games is still missing. The difficulty in understanding narrative persuasion in this context lies in the complexity of a variety of potential mediating variables, such as the variability in game platform structure, perception of interactivity, the degree to which the narrative is embedded in the game, and individual proclivities for game and narrative involvement among others (Appel & Richter, 2010; Dal Cin, Zanna, & Fong, 2004; Jenkins, 2004; Lee, Park, & Jin, 2006). This paper synthesizes literature related to narrative influence and exploring how game components – specifically, the platform, structure and user – influence these paradigms.

The largest difficulty in applying the present literature to interactive systems such as a games and virtual environments is the reliance on narrative processing theory that assumes narratives a clear beginning, middle and end (Green & Brock, 2000; Lee et al., 2006). Not only do interactive narratives have different structures that are influenced and developed differently within different game players, but can also vary within the same user. Instead, it may be more useful to consider the importance of mental representation of narrative and narrative meaning creation (Busselle & Bilandzic, 2008, 2009; Lee et al., 2006; Tanenbaum & Tomizu, 2008). The

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paper will review how individuals become engaged with games in distinct ways from other narrative formats such as print, radio or television. More specifically, the paper will then identify how platform structures influence mental representations of narratives (also known as situation models; e.g., Busselle & Bilandzic, 2008) and how these representations reflect how we engage with interactive narratives.

Next, the paper will explore factors that vary within individuals. In narrative persuasion, processes such as identification or phenomenological perspective-taking that lead to vicarious personally relevant experiences as important character involvement processes that can lead to persuasive outcomes (Cohen, 2001; Moyer-Gusé, 2008; Slater & Rouner, 2002). However, this concept is distinct in interactive games, dependent on how embodied the individual is within the narrative (Biocca, 2002). The paper will then review how other character involvement processes; such as parasocial interaction and wishful identification also occur in interactive games. The paper will also review individual differences that inspire video game exposure, as well as differences such as Maio and Esses (2001) need for affect and Dal Cin and colleagues' transportability that influence a likelihood to become involved in narratives broadly.

Finally, the paper will review how these processing mechanisms lead not only to cognitive and behavior change but also affective outcomes such as enjoyment. Hopefully, such an organization of relevant literature to narrative persuasion and interactive games and inspire researchers and game developers to create games that are enjoyable and most effectively inspire social change and health behaviors.

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