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The effectiveness of advergames compared to television commercials and interactive commercials featuring advergames

Steven Bellman [a,*], Anna Kemp [a,1], Hanadi Haddad [a,2], Duane Varan [a,b]

[a] Audience Labs, Murdoch University, 90 South Street, Murdoch, WA 6150, Australia
[b] The Disney Media & Advertising Lab, 1904 North IH 35, Austin, TX 78753, USA

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ABSTRACT

Advergames played on computers can be persuasive forms of advertising, especially when players are highly involved or experience telepresence ("being there" in the game). But 30-s TV commercials also deliver high levels of telepresence. Online-video interactive TV commercials, which can combine a TV commercial and an advergame, potentially deliver double the effectiveness of either form of advertising by itself. This study compared the effectiveness of advergames played on a PC to normal 30-s TV commercials, and also to interactive commercials enhanced with advergames. The results show no differences in telepresence, and therefore no differences in persuasive effect, measured by brand attitude, across these three ad types. Implications for advertisers and for future research are discussed.

1. Advergames versus TV advertising and interactive advertising

Advergames played on computers are a new form of advertising. They have the specific purpose of marketing a single brand or product, whereas advertising *in games* is much like traditional product integration (Winkler & Buckner, 2006). For example, ads from multiple advertisers can appear in games on background billboards. Advergames are usually played as standalone applications, for example, on a brand's Web site. Previous research, in response to the enthusiasm of marketers and game practitioners, has shown that advergames are an effective form of advertising, especially to children (e.g., Cauberghe & De Pelsmacker, 2010; Lee & Faber, 2007; Mackay, Ewing, Newton, & Windisch, 2009; Mallinckrodt & Mizerski, 2007; van Reijmersdal, Rozendaal, & Buijzen, 2012; Winkler & Buckner, 2006; Wise, Bolls, Kim, Venkataraman, & Meyer, 2008). To our knowledge, however, no empirical studies have compared the impact of advergames to normal TV commercials, which can also generate high levels of "telepresence" (Kim & Biocca, 1997), the main explanation for why advergames are effective (Cauberghe, Geuens, & De Pelsmacker, 2011).

Watching online video is on the increase, encouraged by wireless devices and connected TVs (Nielsen, 2013). Online video sites like Hulu and ABC.com allow advertisers to add interactive enhancements to online video commercials, and these interactive TV (iTV) commercials often feature advergames (Jensen, 2005). The combination of a TV commercial and an advergame potentially delivers double the effectiveness of either form of advertising by itself. In this study, we compare advergames, played on a personal computer (PC), to normal TV commercials, and iTV commercials with advergame enhancements, using brand attitude as our measure of advertising effectiveness. Brand attitude, or attitude toward the brand, is a person's overall evaluation of a branded product, based on beliefs about the product's attributes but also on peripheral influences such as ad liking (Mitchell & Olson, 1981). A change in brand attitude tends to be a leading indicator of a change in actual buying behavior (Morris, Woo, Geason, & Kim, 2002). Besides the potential socio-economic repercussions of advergames, we also investigate two psychological motives for playing advergames (Papadimitriou, 2009): product involvement (Cauberghe & De Pelsmacker, 2010), and the experience of "telepresence" (Kim & Biocca, 1997).

1.1. Previous research

Because advergames are designed to highlight brand messages to players of varying ability, the games themselves are typically casual games, designed to be simple and easily mastered, and to be played for minutes rather than hours at a time (Winkler & Buckner, 2006). Instead of appearing in the background, brand logos and symbols feature prominently and repeatedly within advergames. For example, in a recent study, advergame players had to catch falling Pepsi cans in a basket (van Reijmersdal et al., 2012).

* Corresponding author. Tel.: +61 8 9360 7350; fax: +61 8 9360 7374.
E-mail addresses: s.bellman@audiencelabs.com (S. Bellman), anna.kemp@uwa.edu.au (A. Kemp), h.haddad@ecu.edu.au (H. Haddad), varan@audiencelabs.com (D. Varan).
[1] Present address: Centre for Health Services Research, School of Population Health, University of Western Australia, 35 Stirling Highway, Crawley, WA 6009, Australia.
[2] Present address: School of Communications and Arts, Edith Cowan University, 2 Bradford Street, Mount Lawley, WA 6050, Australia.

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With advergames, as with traditional television advertising, brand processing is likely to be explicit because the brand is central to the activity taking place, and is strongly integrated into the game. Research into explicit advertising and product integrations (e.g., in movies) suggests that advergames may have a counterproductive effect on brand attitude and purchase intention. People generally resist communications they believe to be intentionally persuasive (Friestad & Wright, 1994). One of the main benefits, for advertisers, of in-game advertisements, such as billboards in a car racing game, is that they are processed implicitly. A player would have to shift focus from the central task (playing the game) to notice them. Implicitly processed brand messages are able to 'slip under the radar', avoiding the counter arguing and reactance that consumers engage in when they are aware of the intent of brand messages (Edwards, Li, & Lee, 2002; Russell, 2002). For this reason, the body of literature examining the effectiveness and impact of implicitly processed in-game advertising (e.g., Grigorovici & Constantin, 2004) does not help much when trying to understanding the impact and effectiveness of advergames.

Nevertheless, advergames research has shown that the negative effects associated with explicit branding can be counteracted by positive affect transfer (Kim, Lim, & Bhargava, 1998). Players who enjoy playing the game have a more favorable attitude toward the brand (van Reijmersdal, Jansz, Peters, & van Noort, 2010; Wise et al., 2008). The potential for positive affect transfer is heightened when the game is seen as relevant to the advertised product category, for example, using a travel-related game to advertise a travel company (Wise et al., 2008). For this reason, all the games tested in this study were related to the advertised product. As well as highlighting the importance of product-category relevance, previous research into advergames has shown that their effectiveness increases with two other variables: perceived telepresence, and product-category involvement. It is important to measure the effects of these variables when comparing the effectiveness of advertising across PCs (advergames) and TVs (30-s commercials and iTV ads).

1.2. Effects of telepresence

Telepresence is the feeling of "being there" in a mediated environment, and forgetting that you are actually sitting in front of a PC or a TV (Kim & Biocca, 1997). Advergame enjoyment, and therefore the positive effect of advergame play on brand attitude, should increase if players experience a stronger feeling of telepresence (Cauberghe et al., 2011). Telepresence results from perceptions of interactivity and vividness (Klein, 2003; Steuer, 1992), both of which could potentially be perceived as high in advergames, but could be equally high when watching TV (Kim & Biocca, 1997). Kim and Biocca (1997) discovered that telepresence has two dimensions, which are conceptually different, rather than poles of a spectrum. *Departure* is the sensation of being drawn away from ("not being" in) the physical environment, while still aware of the physical environment's existence. Only if the physical environment is forgotten will a person experience *arrival*, the sensation of "being there" in a virtual environment. In Kim and Biocca's (1997) study, only departure, which is the more likely experience when watching TV, had a direct effect on buying decisions, and so we measure only the departure dimension of telepresence in this study.

Telepresence increases the effectiveness of advertising because it leads to the experience of flow (Cauberghe et al., 2011; van Noort, Voorveld, & van Reijmersdal, 2012). Definitions of flow resemble Kim and Biocca's (1997) arrival dimension of telepresence, during which the surrounding environment is forgotten. Flow is the experience of being so immersed in an online activity that you lose all track of time (Csikszentmihalyi, 1975; Hoffman & Novak, 1996). Flow would also increase the positive effect of play on brand attitude because flow increases enjoyment directly. For example, a multi-item flow scale includes the item "it was fun" as well as "I was totally absorbed in what I was doing" (van Noort et al., 2012). Our first hypothesis, that telepresence increases persuasive effectiveness, can be tested by the significance of the effect of telepresence on brand attitude, across all three ad types tested in this study: advergames played on a PC, TV commercials watched on a TV set, and iTV commercials with advergame enhancements:

H1. Telepresence increases the effectiveness of advertising, measured by brand attitude.

1.3. Effect of product involvement

Player involvement is another variable likely to increase the positive effect of advergame play on brand attitude. Two types of involvement have been measured in previous advergame studies: game involvement (e.g., van Reijmersdal et al., 2012) and product involvement (Cauberghe & De Pelsmacker, 2010). Game involvement, which has been measured by items such as "how hard did you try to achieve a high score?" (van Reijmersdal et al., 2012), is likely to be chronically high for avid gamers, but for most people is situational, dependent on stimuli and cues in the environment (Liu & Li, 2011), such as the game itself (Cauberghe & De Pelsmacker, 2010; Celsi & Olson, 1988). Product involvement, on the other hand, tends to endure across situations, because it is based on a person's knowledge of the product category (Cauberghe & De Pelsmacker, 2010). Product involvement increases attention to the advertised product, rather than peripheral aspects of the ad (Park & Young, 1986; Petty, Schumann, Richman, & Strathman, 1993). Cauberghe and De Pelsmacker (2010) found that when players were forced to play an advergame for a high-involvement product (a car) four times, brand attitude declined, most likely because the greater level of resources devoted to processing ad-content about a high-involvement product also increased attention to negative thoughts about repetition (Campbell & Keller, 2003). In Cauberghe and De Pelsmacker's (2010) study, product involvement made no difference to brand attitude when games were played only twice. In our study, participants play each game only once, so we anticipate no negative effects of involvement on brand attitude. However, Cauberghe and De Pelsmacker's study used fictitious brands, which would limit the number of personal associations with the advertised products. In our study, we do not manipulate involvement using high- and low-involvement products but instead measure involvement for four low-involvement categories, represented by real brands. Individual differences in involvement across these four categories are likely to influence how much effort a person puts into processing any of these ad types, for example, the extent of their interactivity with the iTV and PC advergames (Levy & Nebenzahl, 2008). Our second hypothesis is that product involvement also increases the persuasive effect of advergames. We test this hypothesis by the significance of the effect of product involvement on brand attitude, for players of advergames on a PC, viewers of a TV commercial on a TV set, or viewers of an iTV commercial enhanced with an advergame:

H2. Product involvement increases the effectiveness of advertising, measured by brand attitude.

1.4. Effects of age and ad type

The enthusiasm of marketers for advergames as an alternative to TV commercials has two possible explanations. The first is that advergames are more effective than TV commercials. The second