Abstract

Players from all demographic groups are spending more and more of their leisure time playing multiplayer online games. As such, the gaming environment may be a more suitable vehicle to reach target markets. This study assessed whether advertising in the form of embedded billboards has an impact on the online gamer. Even though they could recall passing the billboards many of the players could not recall the names of either the products or the brands after the gaming session. This was possibly due to the immersive nature of the game with peripheral details not fully registering. The embedded billboards within the game had very limited impact on either the enhancement of the game experience or on product purchase intentions.
Introduction

Multiplayer online gaming has become a popular form of entertainment and has moved from being the playground of young males to appealing to all age groups and genders. Players enjoy the competitiveness as well as the increasingly social aspects offered by interacting with others in the online gaming environment. This trend of playing online games as a leisure pursuit has been at the expense of television viewing, the medium traditionally used to reach target audiences (Pastore 2002). However, rather than perceiving it as a concern, marketers should consider it as an opportunity to develop more innovative and interactive promotional messages.

Sports games manufacturers have been one of the first to consider new promotional techniques such as the insertion of billboards as it emulates the ‘real world’ environment at sports events. These embedded billboards of product names add to the realism particularly for car racing and field-sports with placement around perimeters. Whether this can be successfully extended to other genre of games such as an online first person shooter (FPS) has yet to be determined. Therefore this exploratory study embedding billboards in a first person shooter game was designed to add to our knowledge of the effectiveness of billboards in a gaming environment. In particular, whether billboards are recalled and whether they have any effect on gamers in terms of their game experience, was examined.

Online Gaming and Marketing

Those under 40 have been brought up in an environment where interactive entertainment has tended to replace the more passive forms of entertainment such as watching television and listening to the radio. Studies have shown that playing computer games is the most fun entertainment activity, far superior to television (Rodgers 2002). There is a group of gamers who spend in excess of 50 hours per week playing games. These ‘hardcore’ gamers make up 15% of gamers (Griffiths 2003).

The image of a gamer as a young ‘nerdy’ male is not reflected in recent statistical data. Computer games have moved into the mainstream being played by both genders and by any age group (Fattah and Paul 2002; Greenspan 2003a; Greenspan 2004). According to the Entertainment Software Association the average age of a gamer is 29 with many gamers in the over 50 age bracket (Greenspan 2003b). A subset of these gamers is the group of people who prefer to play online games. Multiplayer online games are defined as “games in which many people can participate at the same time through online communication networks” (Kim et al. 2002, p. 72). This group constitutes 37% of most frequent game players (IDSA 2003).

Advanced technologies, in particular broadband (that can assist in reducing poor ping times) and faster CPUs have been powerful facilitators in the increase in online gaming. However, the UK, where this study was undertaken, has been somewhat slower than South Korea, the country leading the way in broadband Internet use. More than 70 per cent of South Koreans have broadband whereas the UK has little more than ten percent (Ofcom 2003; Ward 2003). In terms of households this ten percent represents over three million, a substantial and rapidly growing market. With the increase in broadband, the size of the European online gaming market is predicted to be worth £265million by 2006 (Poole 2003). Jupiter Media Metrix reflects the potential of significant online gaming revenue in their figures. They foresee that it will increase by 450% over the four years to 2006 (Fattah and Paul 2002).

It was suggested by Hopper (2002, p.16) that “few marketers have more than scratched the surface of the potential of online games to involve, entertain and educate consumers about brands”. For some, advergaming has been the promotional method employed to achieve interactivity with their customers. The increase in online gaming provided the opportunity to develop advergaming, that is, a game as an advertisement. This increasingly popular strategy uses games to promote brands online achieving brand exposure and consumer involvement. Players spend on average 5-7 minutes on an advergame,
at least ten times more than watching a television advertisement (Fattah and Paul 2002). It has been
suggested that advergaming may have the most potential in the quest to reach gamers (Fattah and
Paul 2002).

Car companies have employed this technique as the games environment lends itself to incorporating
this type of product as a racing game. Chrysler attributes fourteen percent of their orders for the
Wrangler Rubicon to the brand’s online game (Ferrazzi, Chen, and Li 2003). Organizations as diverse
as fast moving consumer good companies, financial institutions, and the US Army have ventured into
the interactive world of advergaming in an attempt to engage users with the brand (Counsell 2002;
Precision Marketing 2002). Advergaming within a multiplayer online game is also a possibility. Certain
games consist of rounds with many players having a degree of ‘idleness’ (e.g. Counter-Strike). When
players die before the round is finished an integrated mini advergame could be played. Although it may
not be suitable for hardcore gamers as they continue to watch the game for clues to develop future
strategies.

Companies might want to consider other means of reaching the hardcore gamer, particularly those
involved in multiplayer. There are various opportunities for the marketer to undertake a joint venture
with game companies. Rising costs of game development and marketing (Euromonitor 2003) suggest
that games manufacturers would be amenable to developing other means of revenue such as selling
space within the game environment.

It has been suggested that in-game advertising is a vast opportunity but as yet only a limited number
of companies, mainly the racing car games and the more recent soccer games, have employed its use
(Carter 2002; Young 2004). BT (British Telecom) Openworld inserted billboards in-game to promote its
ISP using the FPS, Return to Castle Wolfenstein (Carter 2002). This game is set in the context of
WWII and the billboards were created to blend in with the scenery, however, the product (ISP) is not of
that era and as such did not enhance the realism.

The online multiplayer environment can be a major opportunity to reach large numbers of the target
market particularly when it involves an MMORPG (Massively Multiplayer Online Role-Playing Game).
An example of an MMORPG is EverQuest, a game that has had 120,000 people logged onto the same
virtual world simultaneously (Poole 2003). Importantly, for the international marketer this vast
community reaches all corners of the world.

Multiplayer gamers do not merely enjoy playing games but spend time watching others playing, often
to pick up hints for their own gaming. Participants at LAN parties, and this can be in the hundreds,
might spend time viewing large screens of the playing action. If a marketing message was embedded
in the game large numbers would see it.

Billboards as a Promotional Tool

As it is a relatively new strategy, there is a dearth of research on in-game advertising; indeed the first
studies of online games were undertaken as recently as 2002. Kim et al. (2002) investigated
motivations to using online games and Nelson (2002) studied recall of brand placements in computer
racing games. Even though billboard use in the virtual environment has not been the focus of
academic research there has been some academic interest in the context of real world’ billboards
(Bloom 2000; Donthu, Cherian, and Bhargava 1993; Pham 1992; Taylor and Franke 2003). For the
‘real world’ studies, recall of the billboards is employed as a common measure of outdoor advertising
effectiveness (Donthu, Cherian, and Bhargava 1993; Fitts and Hewett 1977). Factors that are related
to the recall of billboards include (1) those concerned with the billboard itself, i.e. color, position,
location, number of words and brevity and legibility of message, and (2) consumer characteristics, i.e.
attitude to advertising which incorporates attitude to outdoor advertisements (Bhargava, Donthu, and
Caron 1994; Donthu, Cherian, and Bhargava 1993).
The sports marketing literature suggests billboards in the ‘real world’ are not very effective as a promotional tool. In a study of a televised soccer match in Denmark there was very low unaided recall of advertising billboards. The billboard with the highest score achieved 17% and a total of four out of fourteen brands were not recalled by any of the respondents (Hansen and Scotwin 1994). The questionable effectiveness of this medium for televised sports programs was also emphasized by Nebenzahl and Hornik (1985).

To explain the low recall figures some researchers have explored the issue of limited information processing. Bennett (1999) suggests “the atmosphere of a football match is one of excitement…spectators are frequently exposed to perimeter posters and because the latter are seen in a pleasant environment, more notice might be taken of them than in other situations” (p. 294). However, Hansen and Scotwin (1994) suggest “a game [sports event] in itself may become so exciting that all attention is distracted from anything but the game and very little mental capacity is available for processing information concerning billboards, signs on equipment and the like” (p. 285). This theory received support in a study by Pham (1992) where the level of excitement induced by watching a soccer game had a negative effect on recall of billboards. As an online game such as an FPS tends to induce excitement in players, this may reduce the level of recall of any billboard information for all players. Intensity of concentration, based on the gamer’s skill level, might be a differentiating factor in who can process the billboard information. It is hypothesized that those players who are not as familiar with maneuvering around the game are likely to be focusing more intensely and have less time to attend to the billboards.

The hierarchy of effects model may be a means of understanding the effects of billboards both in the real world and the virtual environment. The Lavidge and Steiner (1961) model proposes consumers move through the following stages: awareness, knowledge, liking, preference, conviction to purchase. Linked to this hierarchy, common objectives for any promotion such as billboard usage, is to raise awareness, instill positive attitudes toward the product, and to increase sales. Raising awareness of a product or brand by means of a billboard within an online game requires careful thought. Some players, especially the novice players, may not reach certain areas and hence avoid the billboards. Careful analysis of the pathways players follow is necessary to ensure effective positioning.

The hierarchy of effect is summed up in a discussion of billboard use in street scenes in films and television shows. For these purely visual placements “whilst the aim is to add realism, from the advertiser’s point of view this influence may also lead to increased awareness of a product, a more positive attitude towards that product and, ultimately, a purchase” (Johnstone and Dodd 2000, p. 143). However an assumed direct path through the hierarchy to purchase should not be assumed. Bennett (1999) in a study of English soccer fans assessed the effect of billboards on the purchase stage. Three quarters of the respondents stated the link with the sport did not encourage them to purchase the company’s product. It is hypothesized that in the computer game environment the gamer’s perception of the intrusiveness of the billboards, that is, whether it is ‘unnecessary clutter’ or ‘enhancing to the game experience’, will influence purchase behavior.

Hypotheses and Method

This paper, on the use of billboards in the online game environment, presents the results of an empirical study examining the following questions:

RQ1: What is the level of unaided recall of products/brands?
RQ2: Does game experience impact on level of recall?
RQ3: Does the inclusion of billboards affect the game experience?
RQ4: Is there an association between response to billboards and purchase intent?

Based upon these questions the following research model was constructed (Figure 1)

Figure 1: Research model

![Research model diagram]

Procedure for Embedding Billboards

To achieve the objectives of the study a multiplayer 'fragging' session was organized. The first step in the process was to identify an appropriate online multiplayer game in which to embed billboards. A FPS game was chosen for this study as this genre is the most popular in online multiplayer games (Euromonitor 2003; Game Research 2002). A new map i.e. a level within the game world, was created into which three billboards for different products were inserted. The locations of the billboards were highly visible in areas where all gamers would pass. Exposure time could not be controlled as it is determined by the player, however, the strategic positioning of the billboards ensured maximum exposure. Furthermore, players would repeatedly pass all three of the billboards throughout the duration of the session. This difficulty in controlling for exposure is not unique to online gaming; studies of outdoor billboards would encounter the same issue.

The choice of products to be advertised on each of the three billboards was made after a discussion with two online gamers. The gamers suggested that consumables such as pizza and soda would have personal relevance particularly when playing games. A third product, a digital camera, was chosen as the final product to provide a contrast between low and high cost products. Hypothetical brand names were chosen to reflect the product category. Each of the three billboards featured an image of the product with the brand names in a clear textual format. Particular attention was paid to legibility (i.e. the message can be read in the usual exposure time) and brevity of message as these have been shown to be important for recall (Bhargava, Donthu, and Caron 1994). Screenshots of the three billboards, as seen in the game, are shown in Figure 2, with game play exposure demonstrated by clicking here.
Participants

Participants were recruited by placing an invitation to a fifteen minute ‘fragging’ session on the online gaming community site http://www.trickery.net described as “the home of homeless gamers”. Further information for interested gamers was provided on the researcher’s website. In exchange for a small incentive it was explained they would be required to complete a short questionnaire immediately after playing. The questionnaire was divided into four parts: initially it focused on recall of the billboards, followed by gaming experience and demographic questions, then a section on attitudes to the inclusion of billboards, and finally questions relating to online word-of-mouth activity. The final number of participants was 42 which compares favorably with the 16 subjects in Nelson’s (2002) study assessing advertisements in a computer game.

Overview of Gaming Sessions

The games were organized with time slots one after the other. It was important that volunteers did not see the map with the billboards before their session, as it would offer the opportunity to view the billboards and discuss these with one another. Therefore the gamers who agreed to participate were emailed instructions to join a private IRC (Internet Relay Chat) channel prior to their session where they would be provided with the server details.

At their set times players joined the designated server with one of the researchers acting as administrator. In the instructions the participants were informed that they must use certain settings to ensure the best visibility of the billboards. There are two methods to render graphics in this game, thus a separate set of commands was provided for both the software rendering mode and OpenGL.
rendering mode. The following were the required settings for the constructed map:

Software Mode

\[
d_{\text{mipcap}} \ 0
\]
\[
d_{\text{mipscale}} \ 1
\]

OpenGL Mode

\[
gl_{\text{picmip}} \ 0
\]
\[
gl_{\text{miptexlevel}} \ 0
\]
\[
gl_{\text{max\_size}} \ 1024
\]

To ensure participants applied their appropriate settings they were instructed at one point in the game session to take a screenshot to be emailed when they completed the questionnaire. The sessions were recorded to demo files (a demo is similar to a VCR recording of the action as seen by a spectator). These demos provided valuable information on both the chat throughout the game and the exposure of each player to the billboards. At the conclusion of each session the questionnaire was emailed to all participants who, in turn, completed and returned it immediately.

Unprompted recall of the billboard contents was an objective of the study, thus it was important to control, as much as possible, any communication between participants while completing the questionnaire. The researcher administering the session explained to the players on IRC that it was being monitored and they were to refrain from communicating with each other until all questionnaires were returned. However, once all completed questionnaires were received the respondents were able to 'chat' unrestrained. The unsolicited comments that ensued provided interesting additional information regarding their perceptions of advertising within games.

**Results and Discussion**

The profile of the study’s participants is shown in Table 1. All the gamers were male which is logical as the game chosen was a FPS and women tend to enjoy card, board, and role-playing games (Fattah and Paul 2002). Other studies have also encountered this bias to males in their sample (Game Research 2002; Pedersen 2002). Although the gamers covered all age groups up to 45 years, the majority (76%) were in the 16-25 year bracket. In terms of occupation, half were students, and one quarter was classified as professionals, that is in a profession or managerial position. The gamers were mostly of British nationality although 29% were from other Western European countries.
Table 1: Characteristics of Respondents

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Percentage (n=42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>100</td>
</tr>
<tr>
<td>Females</td>
<td>0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Less than 16 years old</td>
<td>5</td>
</tr>
<tr>
<td>16-25 years old</td>
<td>76</td>
</tr>
<tr>
<td>26-35 years old</td>
<td>17</td>
</tr>
<tr>
<td>36-45 years old</td>
<td>2</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>50</td>
</tr>
<tr>
<td>Non-professional</td>
<td>19</td>
</tr>
<tr>
<td>Professional</td>
<td>26</td>
</tr>
<tr>
<td>Unemployed</td>
<td>5</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
</tr>
<tr>
<td>British</td>
<td>71</td>
</tr>
<tr>
<td>Other European</td>
<td>29</td>
</tr>
</tbody>
</table>

The level of online game experience was assessed using three measures: the time spent playing online games each week; the time spent playing the FPS game each week; and how many years they had been playing the FPS game. Table 2 shows that the majority spend between 8 and 21 hours per week playing online games and 10 percent spend 35 hours or more a week, which is very similar to the data from Game Research (2002). In terms of the specific game used in this study, nearly half (48%) play up to seven hours per week. Most have played the game for more than five years. Only seven percent had one year or less experience with the FPS game. Overall, Table 2 shows there was a diverse range of gaming habits within the sample.
Table 2: Online Game Experience

<table>
<thead>
<tr>
<th>Time spent playing online games each week (n=42)</th>
<th>Time</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 hours</td>
<td>6</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>3-7 hours</td>
<td>5</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>8-14 hours</td>
<td>10</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>15-21 hours</td>
<td>14</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>22-34 hours</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>35 or more hours</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time spent playing the FPS game each week</th>
<th>Time</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 hours</td>
<td>16</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>3-7 hours</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>8-14 hours</td>
<td>15</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>15-21 hours</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>22-34 hours</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>35 or more hours</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How long have you been playing the FPS game?</th>
<th>Time</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year or less</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2-4 years</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4-5 years</td>
<td>9</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>More than 5 years</td>
<td>26</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

Unaided Recall Result

After the gaming session half the gamers could not recall any of the products or brands. One quarter could remember either one or two and only one person recalled all of the information. Figure 3 shows that the products rather than the brands had the better chance of being recalled. This suggests the gamer could remember pictures (product) much easier than the actual words (brand). Thus primary demand, that is, the entire product category, rather than secondary demand, the specific brand, is more likely to be impacted.

Studies on outdoor billboards have shown recall to be generally very low with unaided recall less than ten percent and aided recall by approximately one third of the respondents (Bennett 1999; Bhargava, Donthu, and Caron 1994; Hewett 1972; King and Tinkham 1990; Nebenzahl and Hornik 1985; Pham 1992). This study employed unaided recall and the percentages shown in Figure 3 are generally higher than the ‘outdoor’ studies. The soda can and pizza were recalled by 43% and 38% of respondents, respectively, with 29% of respondents remembering the camera. These percentages drop to 21%, 14%, and 5% for recall of the brand name for the soda, pizza, and camera respectively.
Donthu, Cherian, and Bhargava (1993) identified black and white billboards as being more effective than color ones. In this study the camera was the only black and white product and this received the lowest level of recall. Furthermore, the camera had the added benefit of being positioned alongside armor that players collect for added protection, and hence to which players would gravitate. This strategic location did not induce better recall. The players could have been too involved in collecting the armor to notice the camera billboard.

**Experience versus Recall**

The low recall of the billboards may be due to limited processing capacity as it is focused on game playing. It was hypothesized earlier that the gamer's experience might impact the level of recall with the less experienced gamer devoting more attention to actually playing the game and hence not able to attend to the billboards. Measurement of 'experience' was undertaken in three ways: the time spent playing online games each week; the time spent playing the FPS game each week; and the number of years they have been playing the FPS game. For the first two measures of experience respondents were categorized as having 'low experience' if they spent less than three hours playing games each week. For the third experience measure respondents were categorized as 'low experience' if they had been playing one year or less. Each of the three measures of experience were subjected to chi-square to determine whether there was any association between experience level and the number of billboards recalled. Regardless of the measure of 'experience' or whether recall was in brands or products, Table 3 reveals that there is no association between the experience level of gamers and their level of recall. Thus, the attention paid to the game itself rather than the peripheral information on the billboards appears to be similar for all levels of experience.
Table 3: Association between Gaming Experience and Recall

<table>
<thead>
<tr>
<th>Factors</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time spent in playing online games each week</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. o. of brands the respondents can recall</td>
<td>4.171</td>
<td>5</td>
<td>.525</td>
</tr>
<tr>
<td>N. o. of product names the respondents can recall</td>
<td>5.218</td>
<td>5</td>
<td>.390</td>
</tr>
<tr>
<td>N. o. of brands and products the respondents can recall</td>
<td>4.109</td>
<td>5</td>
<td>.534</td>
</tr>
<tr>
<td><strong>Time spent in playing the FPS game each week</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. o. of brands the respondents can recall</td>
<td>1.592</td>
<td>4</td>
<td>.810</td>
</tr>
<tr>
<td>N. o. of product names the respondents can recall</td>
<td>3.495</td>
<td>4</td>
<td>.479</td>
</tr>
<tr>
<td>N. o. of brands and products the respondents can recall</td>
<td>2.727</td>
<td>4</td>
<td>.604</td>
</tr>
<tr>
<td><strong>How long have you been playing the FPS game</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. o. of brands the respondents can recall</td>
<td>1.620</td>
<td>3</td>
<td>.655</td>
</tr>
<tr>
<td>N. o. of product names the respondents can recall</td>
<td>1.526</td>
<td>3</td>
<td>.676</td>
</tr>
<tr>
<td>N. o. of brands and products the respondents can recall</td>
<td>1.071</td>
<td>3</td>
<td>.784</td>
</tr>
</tbody>
</table>

n=42

Unsolicited comments obtained from the IRC chat after the completion of the questionnaire confirm the inability to register the information on the billboards (refer Table 4). Reasons for not remembering the billboards include: “too busy killing”, “too focused”, “in the zone”. Gamer ‘E’ provided a suggestion for marketers to pursue other in-game methods. Buildings or locations could be brand names such as “the Red Bull Tower”. As some gamers are using microphones to communicate strategies in-game, they are likely to name the sponsor as they direct their co-players to various locations. The verbal repetition of the sponsor’s name will assist in the ability to recall.
To answer the third research question, participants were asked to rate their level of agreement with the following statement “a game experience is enhanced by the inclusion of billboards”. Only those who had recalled any of the products and brands (n=22) were included in this analysis. There was limited agreement that the gaming experience is enhanced by the inclusion of the billboards. Three gamers (14%) agreed with the statement, nine (41%) were ‘neutral’, and 10 (45%) disagreed.
In the final analysis, Spearman’s rho correlation coefficient determined whether there is any association between the enhancement of the gaming experience by a billboard and their purchase intentions. The result shown in Table 5 shows that there is a very weak correlation between the two variables \((r = .128)\). Even though the marketers of the products advertised on the billboards might not see a direct effect on purchases, the results that concern the games companies are somewhat more positive. When all participants were asked whether they would purchase a game with the knowledge that it included billboards, 57 percent agreed, 26 percent were ‘neutral’, and 17 percent disagreed.

**Table 5: Effect of Billboards**

<table>
<thead>
<tr>
<th>Seeing a billboard in an online game will make me more inclined to buy the product</th>
<th>Correlation</th>
<th>Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel the online game experience is enhanced by the inclusion of billboards</td>
<td>.128</td>
<td>.418</td>
<td>.22</td>
<td>22</td>
</tr>
</tbody>
</table>

**Conclusion**

One major limitation with this study is that gamers had only one fifteen-minute gaming session in which to view the billboards. In reality the hardcore gamers, particularly those involved in clans, will play the same map repeatedly and thus will be exposed to billboards each time they play rather than once as in this scenario. It is probable that the effectiveness of the billboards in the normal gaming situation is underrated in this study.

The second limitation relates to the sample both in terms of size and selection. Forty-two participants, although more than double that of the previous gaming study by Nelson (2000), is a small number from which to draw conclusive results. Added to this, the sample did not reflect the population of online gamers as no females agreed to participate and the results may not be generalizable in respect to online gamers as an entire group. However, as FPS games tend to be played by males, generalizability for this genre is not such a major issue.

This study has provided some evidence that in the virtual world billboards for both high and low value products have a higher recall than in ‘real life’ situations such as sports events. An explanation for this is that gamers view only one billboard at a time as they pass through various ‘rooms’ and the information for each product has some chance of being assimilated. Whereas at a sports event, such as a soccer match, all the perimeter billboards are in view simultaneously, all vying for attention at the same time.

The results of the study do not support the hypothesis that the gamer’s experience level will account for recall ability. Gamers at every experience level are just as likely to be immersed in the game with limited processing ability for peripherals such as billboards. Those that have some recall are ambivalent as to whether it enhances their game experience. For those who have a positive perception of the game experience this does not necessarily translate into purchase of the product advertised on the billboard. However, the inclusion of billboards does not prevent the majority from purchasing a game. It is possible that to convince the minority to purchase, the game companies might
have to reduce the price of the game to reflect that there is advertising content within the game.

There is a technical proviso to the effectiveness of billboard usage. One of the benefits attributed to online multiplayer games, in particular the FPS, is the ability for gamers to customize the game, such as changing sound settings and input bindings (binding is attaching a command to a key). Of concern to the marketer is that gamers can usually customize the visual settings. For most current games any inserted billboard could be made unrecognizable by the more experienced gamer through application of certain settings. Games developers will have to circumvent this issue by making billboards resistant to customization.

The results suggest using billboards in-game may have some marketing potential. The population of online gamers is increasingly reflecting the general population. Gamers often play for several hours a week, usually at the expense of television viewing. Thus, marketers, when deciding how to apportion their budgets, should take into account the new lifestyle patterns and consider using online games as a means of reaching their target market. With recall of games’ billboards being higher than those for sports events, the virtual world could be a more effective environment for promotions. Companies will need to ensure the billboards do not irritate the gamer and ideally should enhance the game experience. Some games will be more conducive to the embedding of billboards; those games that portray ‘real life’ are particularly appropriate. Whichever genre is employed, considerable research will be required to ensure the billboards are amenable to the gamer.

References


Carter, Ben (2002), Harnessing the Power of Games,” New Media Age, (January 24), 33-35.

Counsell, Annie (2002), “Serious Money for Fun Spending on Online Games is Tipped to Reach €6.5bn in the Next Four Years,” Financial Times, (July 9), 8.


Euromonitor (2003), Toys and Games: Strategic Management Overview.


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