Dynamic In-game Advertising

Not loved but Certainly Tolerated

Ludvig Hansson

Abstract

Advertising in games is becoming more and more common, as such ways of improving in-game ads are being thought up. One such way is through dynamic in-game advertising which unlike its static counterpart can change to suit different contexts and demographics. This paper builds on a previous survey on dynamic in-game advertising and uses its results to flesh out a deeper analysis to further explain its findings. The aim of this study was to determine if and how important it is that in-game ads are changeable, and the survey focuses on the views and attitude of the consumers. The survey had been distributed online and 209 responses had been gathered. The findings indicate that while players are not necessarily fond of dynamic in-game advertising and do not prefer it over static in-game advertising they do certainly tolerate it and its presence does not seem to have any real negative impact of players’ attitude toward the game. The conclusion drawn was that it can be important that in-game ads are changeable and that if done with care dynamic advertising can be used without risking much in the way of consumer backlash.

Keywords: in-game advertising, dynamic in-game advertising, marketing, consumer attitude

Introduction and Background

The fact that advertising is pervasive through close to all forms of media today should not be at all surprising, even to the layman, and it is certainly true of main-stream media such as film, television and throughout most of the world wide web. This fact certainly applies to the medium of video games as well (Nelson, Keum & Yaros, 2004), in fact, advertising in video games goes back a long way and examples of so called “advergames”, games that exist solely as ads (Wise, Bolls, Venkataraman & Meyer, 2013) can be found on early home consoles such as the Nintendo Entertainment System (Nelson et al, 2004), or NES, for short. As a form of entertainment video gaming has grown explosively, especially in the last decade (Poels, Janssen & Herrewijn, 2013) and so have the costs of producing video games (Raatikainen, 2012) which is not exactly shocking seeing as the games of today are a far cry from their humble beginnings in early arcades and early home systems such as the Atari 2600 or the aforementioned Nintendo Entertainment System. There is of course a reason for the prevalence of advertisement in games, that being that media habits are changing, with many young men reporting that they spend more time playing video games than they do watching television (Nelson et al, 2004), and more recently women, even those aged 18 and older are now one of the fastest growing demographics within the video game industry, combined with the increased costs of production which increase the need of additional sources of revenue for
developers and publishers of videogames (Raatikainen, 2012). The ways ads are presented can differ from game to game: some games contain product placements which is one of the oldest methods of advertising used in games, going as far back as the original Nintendo Entertainment System in games such as Domino’s Pizza’s “Yo! Noid” (Nelson et al, 2004) which featured the Pizza chain’s then Claymation mascot, which is a prime example of an advergame. With the advent of in-browser and mobile gaming even banner and video ads have found their way into gaming (Dardis et al, 2016).

Due to the changing of media habits of both men and women it is clear that video games have potential as a marketing channel, and research has demonstrated that in-game advertising can be effective (Herrewijn & Poels, 2014; Huang & Kang, 2012) and that certain types of in-game can be more effective than others, such as ads with low ad/game relevance having greater effect on ad recognition, whereas high ad/game relevance yields more positive attitudes towards the ad placement. The term in-game advertising, or IGA generally refers to any marketing activity within video games, including advergames, games that exist entirely as ads (Wise, Bolls, Venkataraman & Meyer, 2013), and ads embedded into the games themselves such as the aforementioned product placements. Generally, the term IGA refers to advertisements that are imbedded into a game’s world such as on virtual billboards in games (Poels et al, 2013) or direct inclusions of branded products in games, such as actual cars in racing games or real clothing brands in games that feature character customization. These imbedded advertisements can be either so called static in-game advertising (SIGA) or dynamic in-game advertising (DIGA) (Raatikainen, 2012). As its name implies, dynamic in-game advertising is a form of in-game advertising that is changeable, and using DIGA a game publisher can create a virtual advertising space within the game world which can be sold to advertisers. This allows advertisers to purchase ad space within games with an online component just as they would on a website such as Facebook or Youtube, and this provides another stream of revenue which, given the great costs of game production may be necessary (Raatikainen, 2012).

Problem

While previous research has suggested that in-game advertising can prove effective (Herrewijn & Poels, 2014; Huang & Kang, 2012), the amount of research on the importance and effectiveness of dynamic in-game advertising content is limited. It is quite apparent that being able to change ads to be suitable for specific games and audiences is beneficial, and indeed that from the perspective of game publishers it is beneficial to be able to maintain a virtual advertising space which allows for additional sources of revenue, which, given the still rising costs of game development may be of significance. However, if DIGA is to be of any use for both game publishers, developers and advertisers then some idea of how players perceive this form of in-game advertising is needed to determine the importance of dynamic advertising, and if it is a more favourable alternative to SIGA, that is, static in-game advertising.

Research Question

Thus, the question posed by this paper is “How important is it that ad-content in games is dynamic and capable of changing”. Importance, in this case refers to its overall significance as a marketing method which includes effectiveness and the attitude of players toward the ad placement as well as its effect on the attitude of players toward the game as a whole.

Literature Review

What is in-game advertising, and what is not?
While at first glance the phrase in-game advertising seems to obviously refer to any advertising found in or in close conjunction to games, such as the ads displayed in mobile games as pop-ups or sidebars or ads that may display in loading screens, researchers have made the distinction that in-game advertising is advertising which is actually imbedded into the game as part of the game’s virtual environment (Nelson et al, 2004; Poels et al, 2013; Raatikainen, 2012). This definition is quite clear, but it gives rise to an interesting question, because if in-game advertising is advertising that is imbedded into a game as described, then what does that make ads in games that are not thusly imbedded (Yeu, Yoon, Taylor & Lee, 2013), such as the aforementioned mobile game ads or in browser based games? While ads like such as these certainly make use games as platforms for delivering their advertising message, they are not necessarily part of the games, and in a way could be said to be tacked on to the game rather than integrated into it, since these ads have little impact on the actual gameplay apart from in some cases serving as interruptions to the gameplay experience. It would be convenient to label these ads not as in-game advertising since they are mostly detached from the game and the term should be reserved for advertisements that are imbedded into games as the definition entails. Instead, these ads could beneficially be labelled as simply game advertising, because they are certainly connected to the game, just not necessarily part of it in any significant way. In contrast, in-game advertising is advertising content in games that is imbedded into the game’s virtual world, such as virtual billboards (Nelson et al, 2004).

**What is dynamic in-game advertising?**

Dynamic in-game advertising (DIGA) is very much like ordinary in-game advertising which is static, with the major difference of dynamic in-game advertising being able to change the content it displays. Raatikainen (2012) defines dynamic in-game advertising as advertising set for a predefined time frame, meaning that the ads are changeable. This offers opportunities for ads to be targeted at certain target demographics much like most advertisements found online on websites such as Facebook and YouTube which attempt to match ads with viewers based on stored data such as search and purchase history. Even if no targeting is used dynamic in-game advertising can be used by publishers and developers to establish and maintain what is essentially a virtual advertising space which can then be sold to advertisers for predetermined periods of time, much like an actual real-world billboard.

**How effective is in-game advertising?**

In-game advertising can indeed be an effective marketing technique, partly due to the potential of games as a marketing channel and traditional advertising such as banner ads can be effective when used in games (Yeu, Yoon, Taylor & Lee, 2013). Previous research has established that in-game advertising integrated in a game’s virtual environment can be effective (Ghirvu, 2012; Herrewijn & Poels, 2014; Huang & Kang, 2012; Yoo & Eastin, 2016). Advertising effectiveness is defined as whether and to what extent advertisements or advertising campaigns reach their marketing goals and the effectiveness with which they reach and influence their target audience in the desired way (Chandler & Munday, 2016). There are several factors that are considered to be indicators of advertising effectiveness, such as intent of purchase (MacKenzie & Lutz, 1989; Lee & Hong, 2016). With IGA in mind there are several factors influencing its effectiveness, such as ad/game relevance (Huang & Kang, 2012) and the position of the placement within the game (Herrewijn & Poels, 2014) and ad type (Huang & Kang, 2012) to name a few. Huang & Kang (2012) found that animated in-game ads, for instance on billboards within the game’s world, generate higher levels of ad recognition when compared to static, still image ads, and the same study also found that in-game ads with low ad/game relevance generated higher levels of ad recognition,
while high ad/game relevance generated greater positive effects on players’ attitude toward the ad placement. Relating to the congruence between ad and game, the general context of a game, e.g. emotional or not emotional, can affect ad and brand recall (Yoo & Eastin, 2016). However, some research has also demonstrated that high game/ad relevance can in fact have a greater positive effect on recognition when compared low levels of game/ad relevance (Granquist, Strömberg, & Spöilen Solberg, 2015).

**The attitude of gamers toward in-game advertising**

Attitude can be defined as a learned disposition towards an object or situation which provides individuals with a tendency to respond either favourably or unfavourably to the object or situation (Gross, 2010). The term attitude refers to a general and enduring feeling that is either positive or negative and which consists of an integration of beliefs and values. Within this integration, beliefs represent an individual’s knowledge of the world around them, although this knowledge may be inaccurate; and an individual’s values refers to their sense of what is good, desirable, worthwhile and vice versa (Gross, 2010). The attitude of players toward ad placements in games differ greatly from person to person, some considering that non-intrusive ads such as virtual billboards featuring actual brands are perfectly acceptable as they do not interfere with the gameplay experience at all (Nelson et al, 2004), while some are entirely opposed to advertising in games that they have already paid full price for (Nelson et al, 2004). Ad attitude can be affected by various aspects of the placements, such as ad/game relevance. The congruence between game and ad can positively influence player attitude toward the placement, higher relevance between the advertised brand and the game it is placed in can have a positive effect on players’ attitudes toward the placement, which in turn makes them more receptive to the advertisement and less likely to ignore it or find it annoying or intrusive. One common complaint of in-game advertising is that it lessens immersion and distracts from the gameplay experience, but in the right in-game context in-game advertising can actually heighten the sense of realism, such as when real-life cityscapes are portrayed, the sense of familiarity that arises from seeing a real and familiar brand in-game in an appropriate concept is seen as enjoyable by many players, this can heighten the sense of realism rather than detract from it (Nelson et al, 2004). In the case of in-game contexts where advertisements are appropriate, such as cities, many players actually find the placement of real brands less disruptive and immersion breaking than made up brands which can be jarring (Nelson et al, 2004). Another factor which can positively influence the attitude of players towards in-game advertising is the price reduction on games caused by the additional revenue from in-game advertising (Poels et al, 2013). Poels et al (2013) also found that attitude to in-game advertising is ambivalent in nature, meaning that most players tend to have both positive and negative things to say about in-game advertising. Players are not necessarily negatively inclined to in-game advertising, but it is certainly not free from criticism, such as the fact that it often feels like blatant consumerism and in the past in-game advertising has led to consumer backlash (Poels et al, 2013). One way to lessen negative consumer reaction is to ensure that the potential impact of in-game advertising on is as small as possible, which can be achieved by having advertising fit in with the context and aesthetic of a game (Poels et al, 2013) and by decreasing overdue repetition of advertising (Raatikainen, 2012).

**A model of optimal dynamic in-game advertising**

In his paper on DIGA in 3D games Raatikainen (2012) presents a model for optimal dynamic in-game marketing consisting of two primary elements, gameplay experience and information processing. Gameplay experience is further subdivided into the criteria of Flow and Sense of Presence, with Flow consisting of social interaction, interaction with the virtual environment...
and with any dynamic in-game advertising content and the audio-visual quality of the game’s virtual environment and dynamic in-game advertising content; and Sense of Presence also consisting of social interaction and interaction with the virtual environment and with any dynamic in-game advertising content and realism of the game environment and the dynamic in-game advertising content. Information Processing refers to the dynamic advertising content itself and consists of subtlety, repetition and type of product advertised. These criteria are summarized into what Raatikainen (2012) considers to be indicative of optimal dynamic in-game advertising, which should be:

- Subtle
- Repeated
- Interactive
- Realistic
- Low-involvement product

Raatikainen (2012) posits that in order to determine what is optimal for dynamic in-game advertising the question that should be asked is: What properties of dynamic in-game advertising content are most obstructive to the 3D game’s gameplay experience. He goes on to argue that repetition is the property of dynamic in-game advertising content that players are most likely to find obtrusive, and that repetition of the same product or brand in the dynamic advertising content is likely to lead to decreased perceptions of realism, and the extent of repetition that players find obstructive varies from player to player.

Method

Survey Design and Sampling

The primary data used in this study was gathered using online questionnaires distributed through the social network and aggregator site Reddit. Items were constructed based on reviewed literature and were presented as 5-point Likert scales anchored at 1=strongly disagree and 5=strongly agree. This survey made use of a non-probability volunteer sample, relying on the aggregator site Reddit as well as the social media platform Facebook to distribute the questionnaires. Both were chosen due to convenience and ease of sharing content and reaching a large population. The target population was anyone who either frequently plays or watches others play videogames, since in-game advertising may also affect the indirect audience of games. Reddit was chosen due to the existence therein of communities dedicated to the spread of surveys both casual and academic, and due to the high portion of gamers in its user base. The sampling method used was a non-probability convenience sample which chosen for its inexpensiveness and time effectiveness.

Results

The survey was withdrawn and closed to further replies after 209 responses had been gathered. A majority of respondents found the survey through Reddit rather than through FaceBook. The gender distribution of respondents was 79% male, 19% female and 2% selected the option “other”. The data from the other items is summarised below in the form of modal values, and in one case modal phrase, of the remaining items along with the standard deviation and means of all items to indicate their spread.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mode</th>
<th>Mean</th>
<th>Stdev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever purchased a product after seeing it in a game you were playing or watching?</td>
<td>&quot;No, never&quot;</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>In-game advertising in full-price games is unacceptable</td>
<td>5</td>
<td>4</td>
<td>0.936</td>
</tr>
</tbody>
</table>
In-game advertising breaks my immersion | 5 | 4 | 1.146
In-game ads that can change are less distracting than static ads | 3 | 3 | 1.21
In-game ads that can change to suit my preferences are preferable over static in-game ads | 1 | 3 | 1.274
I am comfortable with publishers and advertisers collecting personal data for the purpose of in-game advertising | 1 | 2 | 0.92
Dynamic in-game advertising feels like an invasion of privacy | 5 | 4 | 1.035
Dynamic in-game advertising should be subtle and blended into the game's aesthetic | 5 | 5 | 0.821
Dynamic in-game advertising that shows the same content too often is distracting/annoying | 5 | 5 | 0.695

Table 1: Summary of responses

Discussion & Analysis

At first glance, based on the data gathered players seem to have a generally negative attitude toward in-game advertising, especially in full-priced games as can be seen in item 2. A majority consisting of 55.5% of the respondents strongly agreed with the statement that in-game advertising in full-priced games is unacceptable, while only 7% of respondents either disagreed or strongly disagreed with the statement. This finding is in line with some of the opinions gathered by Nelson et al (2004) which also expressed a very negative attitude toward in-game advertising in games that they have already paid full price for. This also relates to the findings of Poels et al, who found that players feel that the inclusion of in-game advertising should reduce the price of games, since gamers seem to feel that advertising does not belong in products that they have paid for. This stance is interesting since most people do not seem to think the same of films, television and other media containing advertising. This could be partially due to the fact that videogames are generally more expensive than watching television and films, even when viewed at a cinema, and as such gamers may feel entitled to an ad-free experience. Many gamers are millennials and are used to services such as Netflix or Spotify were users pay to be ensured an ad-free experience, and may therefore find it annoying and distraction when they encounter ads in paid media, especially in videogames which may cost as much as 60 US dollars at release, which to many can seem like a hefty sum when compared to the cost of a film or ticket to the cinema. But thanks to the internet we now live in an age of increased awareness and information availability, and as such more and more people are becoming aware the ever increasing costs of game production which could account for the approximately 21% of respondents who were either indifferent to, disagreed or strongly disagreed with the statement. Another possible explanation for respondents unacceptance of ads in paid games is bias, more specifically social desirability bias. Among millennials, who made up a majority of the sample, there is a general negative attitude towards advertising, tending to ignore it, filter it out or block it all together, combined with a tendency to be, or wanting to appear to be, at least somewhat anti-commercialism and anti-consumerism. Gamers also tend to dislike or appear to dislike advertising in games, even when it has little to no actual impact on the gameplay experience. As such respondents, whether were aware of it or not, might leave responses that reflect what they feel is socially desirable, or expected of their social group. This could potentially mean the seemingly very negative attitude and disapproval of in-game advertising is exaggerated due to biases such as this.
The findings of this survey also indicate that players often feel that in-game advertising lessens their immersion, since a majority of 38% of respondents strongly agreed with the statement “In-game advertising breaks my immersion”. Overall, 66% of respondents either agreed or strongly agreed with the statement while 15% either disagreed or strongly disagreed with the statement. Unlike the previous item respondents were more evenly split around the scale, indicating that players are not as unanimous regarding in-game ads breaking immersion as they are regarding ads in full-priced titles. This does not line up well with the findings of Nelson et al (2004) who found that many players do not feel that in-game advertising breaks their immersion, and that to the contrary many players prefer real brand over fictional ads when displayed in appropriate context. One possible explanation for this discrepancy is the fact this item did not take into consideration the context of the game, which as stated by Nelson et al (2004) can lessen the negative effects of in-game advertising on immersion, assuming that the context is appropriate for advertising. The possibility of bias should also be taken into consideration, since a vast majority of respondents were millennials, who as a group tend be more critical of advertising and consumerism which could reinforce negative thoughts about ads in games, such as them breaking immersion or being unwanted in full-priced games. It should also be noted that breaking or lessening immersion does not necessarily have any serious impact on enjoyability of games, especially since many gamers are not entirely sure what exactly makes a game immersive, and previously mentioned research has shown that in-game ads can, in appropriate context, actually enhance feelings of immersion and realism. The question of bias is also relevant to the second item, since it covers how players feel about in-game ads in paid games, and in fact, looking at the results it can be noticed that nearly all respondents who strongly agreed with the statement “In-game advertising in full-price games is unacceptable” also reported that they had never purchased a product or brand after seeing it in an in-game ad, while those who reported that they had purchased a product after seeing it advertised in a game tended to be either indifferent or tended to either disagree or strongly disagree. Is should also be noted that there is a possibility that those who had never purchased anything after seeing it advertised in a game had in fact not come across any actual in-game advertising and such would not have a realistic image of in-game advertising and the extent of its impact on the gameplay experience. Another possible bias is also the fact that many feel that they are expected to not be in favour of advertising and as answer surveys such as this accordingly.

The findings also indicate that players do not necessarily find dynamic in-game advertising to be preferable over static in-game advertising, nor do they find it to be much more distracting or annoying than static in-game advertising. Players seem to be mostly indifferent as to whether or not dynamic in-game advertising is less distracting than static in-game advertising. As can be seen in the graph below.
While a more positive inclination was expected these findings do not suggest that players find dynamic in-game advertising to be more distracting or annoying than static in-game advertising. But looking at the graph above, while a fair amount of respondents strongly disagreed with the statement there is no overwhelming negativity as many tended to neither disagree or agree, and almost as many disagreed as agreed with the statement, but there were also only a handful who strongly agreed with the statement. However, regarding the perceived distraction level of dynamic in-game advertising it should be noted that respondents were split very evenly between being indifferent and strongly disagreeing with the statement, indicating the distraction level of dynamic in-game advertising is a highly divisive question for gamers, and the same applies to players’ preferences for dynamic in-game advertising over static in-game advertising. This divisiveness, however, was not entirely unexpected, since Nelson et al (2004) found that while many gamers were positive towards in-game advertising, at least as many are highly opposed to in-game advertising in general, and Poels et al (2013) found that the issue of in-game advertising is fairly ambivalent, even within individuals. Despite this it was still expected that gamers would be highly opposed to the idea of dynamic in-game advertising since the changeability of the content displayed could be seen as more distracting and annoying than static in-game advertising. This was expected because with static in-game advertising there is only one initial contact with any specific ad and as such only one opportunity for distraction and annoyance, since after first exposure players tend to ignore an ad as much as possible. But with dynamic in-game advertising the content displayed in constantly changing and as such there should always effectively be a new first exposure to the ad, which is why it was expected to be seen as overwhelmingly negative. With static ads, when an in-game ad is seen once then players do not necessarily pay much attention to it on subsequent exposure to the same in-game ad location, but a change in the content displayed is likely to draw the player’s attention, even if only momentarily which could easily be seen as distracting, especially since many players do seem to be too favourably disposed to advertising in the games they play. As was the case with players’ feeling on the distraction level players seem to be fairly ambivalent regarding the preference of dynamic in-game advertising over static in-game advertising, but as can be seen in the graph below the spread of responses leans more toward the “strongly disagree” end of the Likert scale.
While a majority of respondents strongly disagreed with the statement “In-game ads that can change to suit my preferences are preferable over static in-game ads” this was not a very significant majority, since almost as many respondents neither agreed nor disagreed with the statement. In fact, as with the previous item, there were also quite a few respondents who either disagreed or agreed with the statement, the opinions of players seem to be spread out fairly evenly, which is also indicated by the standard deviation of responses to this item. Out of the nine items in the survey, this item had the largest standard at which would indicate that the responses are spread out rather than clustered closely to the set’s mean.

Another factor relating to players’ attitudes toward dynamic in-game advertising is the matter of privacy and use of player data to customize and determine the ads shown in dynamic in-game advertising, and the results on these items line up well with expectations. 47% of respondents strongly disagreed with the statement “I am comfortable with publishers and advertisers collecting personal data for the purpose of in-game advertising”, and added together, 74% either disagreed or strongly disagreed with the statement, whereas fewer than 5% agreed or strongly agreed with the statement. These findings are further illustrated in the graph below, which shows the responses to the sixth item.
The graph clearly shows that players’ opinions lean heavily towards the “strongly disagree” end of the Likert scale. While expected these findings are somewhat worrying since the ability to target ads based on demographics and collected data is a very significant strength of dynamic in-game advertising, and this lack of comfort and acceptance of the use of such data could lead to negative attitudes towards dynamic in-game advertising and consumer backlash at games containing such advertisements. Along similar lines, the results show that players think that dynamic in-game advertising feels like an invasion of privacy due to the aforementioned collection of data. The graph below shows the responses to this item.

32% of respondents strongly agreed with the statement “Dynamic in-game advertising feels like an invasion of privacy”, but at the same time 31% of respondents were indifferent and neither agreed nor disagreed with the statement. Looking over the data from this particular item it can be noted that its standard deviation indicates that its values are spread out around the mean rather than clustered close to it, and responses are split fairly evenly between neither agreeing nor disagreeing, agreeing and strongly agreeing. While very few players
seem to be entirely comfortable with the privacy aspects of dynamic in-game advertising this is not necessarily a significant issue of the use of dynamic in-game advertising. Firstly, once again there is the issue of bias, for instance the social desirability bias. Among millennials, and also among users of Reddit, who make up a majority of the sample, there is a tendency to be at least somewhat anti-commercialism and to be negatively disposed to advertising, and this could have led those who took the survey to be overly critical when answering these two items. Even though respondents knew that they would be anonymous biases like these are subconscious and people are rarely aware of them, and in the case of social desirability bias people do not necessarily do it to please others but also reassert to themselves that they hold up to their own beliefs and standards of what they feel is socially desirable, so it should be expected that bias could be at least partially behind these results. Even disregarding the possibility of bias the views on dynamic in-game advertising and privacy might not even be significant to players’ attitude to and acceptance of dynamic in-game advertising. This assumption is based on the fact that despite concerns of privacy regarding targeted ads in general most people online still make use of and view ads on websites such as Facebook and YouTube and any other site that makes use of any kind of ad broker system, and advertising on sites like these already makes extensive use user data and demographics to deliver relevant ads to the site visitors who are most likely to generate conversions. Despite this, internet users still have few qualms about visiting and using these sites, and based on this it is fairly safe to assume that the opinions of players regarding privacy and dynamic in-game advertising do directly translate into their actual behaviour. Regarding consumer backlash toward games and advertising in games there is also little in the way of evidence that suggests that any negative consumer attitude toward in-game advertising, whether it is dynamic or static will lead to any significant decrease in the sales of games, and this only applies to paid games as many gamers are perfectly fine with ads in free games.

Also in accordance with expectations the findings support Raatikainen’s (2012) model of optimal dynamic in-game advertising, specifically the notions that optimal dynamic in-game advertising should be subtle and that repetition of dynamic ad content can increase its effectiveness but excessive repetition leads to distraction and annoyance. Raatikainen (2012) had argued that subtlety is essential for successful dynamic in-game advertising as it decreases the likelihood that players are annoyed or distracted by jarring and obnoxious ads, it detracts from immersion as little as possible and, when blended in subtly with a game’s aesthetic dynamic advertising can heighten realism and immersion. The survey findings are very much in line with this, as when presented with the statement “Dynamic in-game advertising should be subtle and blended into the game's aesthetic” a majority consisting of 66% of respondents strongly agreed with that statement. The findings also confirm that players prefer dynamic in-game advertising to not repeat the same content to much, as 76% of respondents strongly agreed with the statement “Dynamic in-game advertising that shows the same content too often is distracting/annoying”. Respondents were also greatly unanimous in their opinions on these two final statements, both items had the lowest standard deviations of all the nine items from the survey which indicates that the responses are clustered fairly closely around the means. This in turn suggests that players’ views on what dynamic in-game advertising should be like are fairly consistent among most individual gamers and should therefore be considered when implementing dynamic advertising in games. As was mentioned these findings are not surprising in the slightest, but they do confirm that Raatikainen’s model (2012) lines up well with the opinions of gamers regarding how dynamic in-game advertising should be carried out and provide some guidelines for how dynamic in-game advertising should be implemented.
Age did not seem to account for any significant differences in opinion, but it should be noted that there was little variation in the ages of respondents, most of them being millennials with only a handful of exceptions, and these respondents tended to give similar answers as their older respectively older counterparts. The fact that many of the respondents were millennials is somewhat apparent from the results themselves as the opinions gathered line up fairly well with the opinions of the millennial generation regarding advertising. As was the case with age, responses were very similar across genders as well, with both men and women giving similar responses. However, the sample contained significantly fewer females than males, as males made up 79% the sample, 19% were female and the remaining 2% reported their sex as “other”. This significant disparity in gender distribution means that it would be difficult to make any very accurate conclusions on gender differences in opinions and attitudes toward in-game advertising in general and toward dynamic in-game advertising. A more evenly distributed sample would help to determine whether or not men and women differ in their views on in-game advertising, both static and dynamic. The reason for considering gender as a potential factor was the fact that women are an increasingly growing segment within the video game market (Raatikainen, 2012).

**Conclusion**

To briefly summarise, the findings indicate that players are in fact quite ambivalent regarding dynamic in-game advertising, as was expected based on the findings of Poels et al (2013), and while players did not seem to prefer dynamic in-game advertising over static in-game advertising there was no apparent dislike of dynamic in-game advertising. Players’ attitude towards dynamic in-game advertising is similar to their attitude toward in-game advertising in general in that individual players often are ambivalent and in that as a group gamers are quite divisive; some being perfectly accepting of in-game advertising even in paid games while some were entirely opposed to in-game advertising in paid games, and some even claimed to prefer dynamic advertising over static advertising even in terms of perceived distraction while others showed no preference for dynamic in-game advertising over static advertising. But there were also points on which most gamers seem to agree, such as how dynamic in-game advertising should be implemented: which supported Raatikainen’s model of optimal dynamic in-game advertising (2012); and most players feel that in-game advertising is most welcome in either free or cheaper titles, which supports Poels et al’s (2013) claim that the price reduction possibilities of in-game advertising is seen as positive by gamers. Many gamers seem to have concerns regarding the potential privacy issues of dynamic in-game advertising, but based on common media habits which include services that make use of targeted ads based on demographic data it would seem that these concerns are not actually enough to dissuade gamers from playing games with dynamic advertising content. Going back to the research question: “How important is it that ad-content in games is dynamic and capable of changing?”, this paper chose to tackle the question from the perspective of the player, rather than from the perspective of the publisher or developer. This meant that the thoughts and attitudes of players towards in-game advertising in general and dynamic advertising were placed in focus in order to determine how accepting players are of dynamic in-game advertising and how important players feel that it is that ads are changeable. In turn, by finding out how players feel about dynamic in-game advertising it can be deduced whether or it is actually important for publishers and developers to use dynamic in-game advertising when possible. To answer the research question, the findings of this survey as well as the claims and findings of previous research heavily suggest that while players do not necessarily have a positive attitude towards dynamic in-game advertising, the attitude is no less positive than their attitude towards static in-game advertising. Players do not feel that it is important that in-game ads can change, but they are no more opposed to the
The conclusion that can be drawn is that, from the perspective of publishers and developers at least, is that it can be very important that in-game ads are changeable, since it offers better advertising opportunities since ads can be targeted to allow for better precision which in turn can lead to increased advertising revenue while, importantly, not sacrificing the positive attitudes of players. But, based on the findings publishers and developers should be careful in their implementation of dynamic in-game advertising. Firstly, in order to avoid consumer backlash dynamic in-game advertising and in-game advertising in general should not be overused in paid titles, but advertising is often welcome in free or very cheap titles. Secondly, in accordance with Raatikainen’s model (2012) of optimal dynamic in-game advertising any dynamic ad content should be subtle and should fit in into a game’s aesthetic, and in-game advertising should not repeat and display the same content too often. Additionally, increased transparency in terms of what is tracked for the purpose of in-game advertising could potentially lessen negative feelings and privacy concerns.

**Limitations and Further Research**

One highly significant limitation is the survey method which made use of self-reported data. While self-report methods are convenient and affordable there is no way to actually ensure that the information gathered is true and reliable. Self-report surveys such as this are also prone to bias, and the possibility of bias affecting the results was discussed preciously in this paper. The prospect of generalizability is another limitation. Because the sample was fairly similar in their characteristics in terms of age, gender and interests, and because the sample was a convenience based, non-probability volunteer sample rather than a random sample it may be difficult to apply these findings to the larger population of gamers as a whole. Regarding future research, some input on the views on and the importance of dynamic in-game advertising from the side of publishers and developers could shed more light on the overall feelings on dynamic in-game advertising, not just how consumers feel. The uneven distribution of age and gender in the sample mean that some further research into the effect of age and gender on attitude toward in-game advertising and dynamic in-game advertising could help give a clearer picture of consumer attitude toward dynamic in-game advertising and in-game advertising in general.
References


