Looking into the mechanisms used in advergames to influence players

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Abstract

Advergames are free online games developed in order to promote a specific brand, service and/or product. They are persuasive in nature in that they integrate ads into the digital game, which makes it oftentimes difficult for the players to perceive the persuasive attempts. They are usually designed with the goal of increasing brand awareness and exposure through the creation of positive associations between the game and the brand promoted. Previous studies have identified brand placement, brand integration, game-goal-message-goal overlap, the autonomy of the game, entertainment, commitment and consistency, and word-of-mouth and social integration as possible persuasive mechanisms within advergames. By adopting a communication persuasive perspective, the goal of this study is to understand what type of persuasive mechanisms are used in advergames. The persuasive mechanism of visual argumentation was explored. Lastly, a focus was given in understanding if the persuasive mechanisms have changed over time. A content analysis was chosen to study the mechanisms of 40 advergames and of 5 YouTube video clips about advergames, which were then categorized according to those that were identified in the last content analysis on this topic by Roettl, Waiguny and Tertuller in 2016. It was found that some of the persuasive mechanisms used in advergames are brand placement, brand integration, consistency, entertainment, social media integration, and visual metaphors and that the application of these mechanisms varies according to the advergame played, but there is a similarity in the way in which they are applied. Furthermore, it was found that visual argumentations have sometimes been applied to advergames by portraying the brand personality through the games and in some instances, by providing positive statements about the brand. Lastly, although advergames have developed and become more complex along the technological development of the last few years, the same persuasive mechanisms can be found both in the older and in the newer advergames. These mechanisms have remained constant thought out the years; however, their

implementations have adapted to the technological development. Some limitations need to be taken into consideration when interpreting these results, namely the subjectivity of the coding scheme and the sample of advergames used. The indications for further research have been laid out. In terms of contribution to the research started in 2016, this thesis presents the following additions: an adjourned evaluation of the advergames available on the free market, with a focus on those issued after 2016 due to the technological development achieved in the field of videogames in the last 4 years; an explanation of some of the persuasive mechanisms used in this virtual environment, with the addition of focusing on visual argumentation as a form of persuasion in advergames. Lastly, this thesis presents a structured method which allows for the advergames to be analysed in a consistent and coherent way and to produce homogenous results that can be verified and reproduced.

Introduction

While playing a car racing game, the eyes might catch advertisement banners along the race's

path that are promoting real-world cars' brands. While playing other games, the avatar looks

suspiciously similar to something seen at the supermarket; when the character takes a sip of

Red Bull and it is starts moving faster; or the goal of a game is to score more and more points

but the only way to achieve that is to collect Doritos chips. It is very likely that these games

were created for a very specific brand with the idea of persuading its players. This type of

game is mostly known as an advergame.

In the last decade, advergames have gained popularity as a marketing strategy to

promote brands and products (De la Hera, 2014). These games have been defined as "A web

or downloadable game where the primary objective of building is to deliver advertising

messages, drive traffic to web sites and build brand awareness" (Calin, 2010). They are

persuasive in nature in that they integrate ads into the digital game, which makes it oftentimes

difficult for the players to identify the persuasive attempts. Advergames can be used on

laptops, smartphone and tablets. These games are usually marketed through various media

channels such as commercials, banners, and ads (Lee, Choi, Quilliam, & Cole, 2009). One of

the main goals of these games is to provide branded entertainment (Lee & Cho, 2017).

Branded entertainment refers to "the efforts to imbed brand messages in entertainment-

oriented media content in order to increase consumers' willingness to process commercial

contents" (Lee & Cho, 2017). In the article by Santos, Gonzalo and Gisbert (2009), they have

identified some benefits that come with choosing this type of medium when promoting a

brand. These include the enhancement of the brand's image, increased time spent on the

brand website, and increased marketing traffic. Most of the advergames have been created to

promote food related products, such as cookies, candy brands, fast food companies, but it is

also possible to find games related to cars and clothes, for example (Alvi & Calvert, 2008).

Some brands that are known to use this type of marketing strategies are KFC, Chupa Chups and Burger King.

According to Lee, Park, and Wise (2014), advergames attempt to create an emotional reaction between the game and the brand that they are promoting, by creating what the researchers have called "human-message interaction". This type of interaction occurs when the brand message can be customized by the users, through interacting with the brands by clicking or using the brand within the game (Lee, Park, & Wise, 2014). In subsequent research, it has been discovered that the main reasons behind why people engage with these games is to have fun, out of curiosity, and engage in competition (Lee & Youn, 2008).

Some research has been done to understand the persuasive mechanisms and processes that are currently applied within advergames. This topic has been mostly studied in the area of food related advergames and how they influence their target population, mainly children (Lee, Choi, Quilliam, & Cole, 2009; Roettl, Waiguny, & Terlutter, 2016). The last study on the methods of persuasion used in these games was found to be the study conducted by Roettl, Waiguny and Terlutter (2016) which was published back in 2016.

In this thesis, a content analysis method is used to analyse the persuasive mechanisms that are applied within advergames. A content analysis is a method often used in research concerning advertising and marketing. This method entails analysing communication in a systematic manner with the intention of measuring variables; it can be either objective or subjective, qualitative or quantitative depending on the purpose of the study (Kerlinger, 1986; Flick, Kardoff, & Steinke, 2004; Schreier, 2012). For this particular study, a qualitative content analysis has been chosen. This study is a continuation of the content analysis by Roettle, Waiguny and Terlutter (2016), from which the initial mechanisms are taken from. The persuasive mechanisms included are brand placement, brand integration, the autonomy

of the game, game-goal-message-goal overlap, entertainment, commitment and consistency, and word-of-mouth and social integration.

Following the thesis of Vieira (2017), in which it was found that the persuasive effect of these games could be enhanced through the use of visual cues, adding visual metaphors to the advergame interface could intensify the positive effect between the player and the brand. Furthermore, according to De la Hera (2012), the procedural rhetoric could be more powerful by connecting that to visual rhetoric. The idea of visual metaphor as a persuasive mechanism is explored.

Lastly, this paper focuses on understanding if and how advergames have changed over time in terms of the persuasive mechanisms that they display.

Research questions

This research was aimed at exploring the persuasive mechanisms and processes in advergames and focused on answering the following research questions:

"Which persuasive mechanisms are being used in advergames to persuade players and how are these being implemented in the games?"

"How are visual metaphors being applied to advergames?"

"How have the persuasive mechanisms used in advergames changed over time?"

Literature review and theoretical framework

In order to examine the subject, this thesis provides an explanation on how persuasion in advergames comes to impact the players is given, in order to have a better overview of what these games are and how they persuade their players. An explanation of the persuasive mechanisms that have been found to be used in advergames is provided to understand what these mechanisms are, how they might be presented in the games and how these affect the players. Furthermore, an explanation and overview of the mechanism of visual argumentation is given to understand how this mechanism can be translated from traditional media to the more recent technologies and to understand how this mechanism has been applied advergame. Lastly, an overview of the changes that videogames have undergone in the past years and how these changes might have affected persuasiveness and its mechanisms is given.

Advergames have been created with the goal to increase brand awareness and exposure by giving a positive experience to the user and therefore creating a positive affiliation between the brand, the game and the user (Sung & Lee, 2020). In these advergames, companies tend to promote all their actions that are prosocial, charitable and positive, because in this way, the consumer will focus on these actions and will associate the brand with these actions (Sung & Lee, 2020). Similarly to companies, advergames use the idea of branding and brand equity to create positive association between their products and the consumers (Norman, Kelly, McMahon, Boyland, Chapman, & King, 2019). Brand equity can be defined as the idea of associating a specific, mainly positive value to a brand, which then transmits to all the products of the brand (Keller, 2013). According to Kinard and Hartman (2013), when exploiting brand equity, advergames have shown to impact brand information processing by associating positive arousal with the game play. This process leads to an increase in brand awareness, brand knowledge and positive brand attitude.

Before going into depth on the topic, an important differentiation needs to be made in order to understand which games are advergames and which provide in-game advertisement. Within advergames, the brand or product has a prominent role in the player experience, while in-game advertisement can be explained as the paid placement of the product or the brand inside the game environment; or it can come in the form of pop-ups (Gungor, Kose, & Cadirci, 2016). Some research has been done on the topic of advergames and how they attempt to persuade their players. In previous literature on these games, the effectiveness and the effects of advergames on the players have been studied as one element. However, effectiveness refers to the long-term influence of advergames on brand equity; while effects refer to the effects that singular elements have on the players (De la Hera, 2019). Thus far, it has been found that advergames are using multiple persuasive mechanisms, among which are brand placement, integration and more (Roettl, Waiguny, & Terlutter, 2016). These will be further explained below. Playing advergames might result in higher brand recall, brand awareness, purchase intention, but could have negative impacts on brand attitude (Vashisht & Sreejesh, 2015; Van Reijmersdal, Lammers, Rozendaal, Buijzen, 2015). Advergames have been also found to increase memory of the brand embedded within the games, more positive brand attitude, and actual purchase of the brands' product (Van Reijmersdal, Lammers, Rozendaal, & Buijzen, 2015).

Persuasion within advergames

First of all, a definition of persuasion should be provided. Persuasion can be defined as an attempt to influence a person, who is acting out of their own will, and the end goal of persuasion is a change in cognitions and/or behaviour of the person (Jensen & Carcioppolo, 2011). In traditional games and serious games, one prominent way in which games attempt to persuade players is procedural rhetoric. This rhetoric can be defined as the use of "rule-based

representation and interactions" in order to convey messages (Bogost, 2007). When taking into consideration this concept, persuasion should be achieved when the brand is well integrated within the game, the goal of the game overlaps with the goal of the brand's message, and when the message is autonomously integrated in the game (Waiguny, Nelson, & Terlutter, 2012). In their paper, they found that games are the most likely to be effective form of persuasion because of their ability to combine narration, simulation, interaction and intelligence. Contrary to this idea, in their research, Lee and Youn (2008) found that this type of process is usually not used in advergames because those types of games are often used in order to entertain oneself and not to gather information on a certain topic.

According to the Elaboration Likelihood Model (ELM), persuasion can result through two different paths: the central path and the peripheral path (Petty & Cacioppo, 1986). On the one hand, the central path focuses on providing arguments which need to be thoughtfully understood and comprehended by the target of the persuasion attempt in order to reach the specific behavioural and/or attitudinal change. On the other hand, the peripheral path provides heuristics and cues (Petty & Cacioppo, 1986). To bring it back to advergames, they are usually played for fun and entertainment. This means that they presumably tend to arouse their players and limit the capacity of the players' cognitions, which then leads to their players being influenced in a peripheral and heuristic manner (Lee & Youn, 2008).

Closely related to the ELM is the idea of cognitive capacity in the limited cognitive capacity theory (Lang, 2000). Cognitive capacity can be understood in terms of the amount of mental capabilities that a person can allocate one stimulus at a time. In his theory, Lang stated that a person has a limited mental capacity one moment at a time and for one task only (Lang, 2000). In conclusion, according to this theory, cognitive capacity is limited, undividable and multitasking does not exist. Individuals just shift attention from one task to another but cannot focus on two tasks at the same time. From their point of view, Evans and Hoy (2016)

suggest that if this theory is applied to the concept of advergames, players quickly shift from

tasks to tasks and their goal is to complete the game, therefore, their mental capacity shifts

away from the persuasive attempt and making it harder, however not impossible, for the user

to understand the persuasive effort (Evans & Hoy, 2016).

Although companies are not known to disclose or point out directly the promotional

elements of these games, advergames can activate persuasion knowledge among players

(Vashisht, Royne, & Sreejesh, 2019). Persuasion knowledge happens when the audience

realises that there is a promotional ad embedded in the game, they activate their persuasion

knowledge and as a consequence they create defence tactics in order to counteract the

persuasion attempt (Campbell & Kirmani, 2000). So far, it was found that persuasion

knowledge has a positive impact on brand recall but has a negative impact when it comes to

consumers' attitude towards the promoting brand. Social cognitive theories also help

understanding how advergames attempt to persuade their users (Norman, Kelly, McMahon,

Boyland, Chapman, & King, 2019). In food-related advergames, food companies such as

Chipotle, KFC, and Burger King, pair their product with highly appealing stimuli, which will

then transmit to the brand itself (Norman, Kelly, McMahon, Boyland, Chapman, & King,

2019). However, another explanation as to why advergames might work in achieving their

goals, is that people who are familiar with online games already are aware of the fact that

there might be some advertising and promotional aspects to the game and they are already

more accepting of the persuasion effort compared to people who are not familiar with these

games (Lee, Park, & Wise, 2014).

Another way in which advergames seem to influence their players is through the mere

exposure effect (Nair & Hang, 2012). Players might not automatically recall the brand

embedded in the advergame; however, they will connect the brand to the entertainment they

felt while playing the game which leads to preferring and liking the brand by associating it

with said entertainment (Nair & Hang, 2012). These are some of the few processes that increase the likelihood for an advergame to achieve its persuasion goals.

Advergames are developed around the brands and product promoted, therefore, they also have persuasive mechanisms which can justify the attitudinal change that occurs after a person plays such a game. According to the last content analysis written by Roettl, Waiguny, and Terlutter (2016), advergames attempt to persuade their players by using the following persuasive mechanisms: brand placement, brand integration, the autonomy of the brand message in the game, the game-goal-message-goal overlap, entertainment, word-of-mouth and social integration, and lastly commitment and consistency. As this thesis is built on this paper, these mechanisms are explored more in depth below.

Brand placement

Brand placement can be defined as the "in-game brand location" and it refers to when the brand is located at the centre or the side of the screen (Vashisht & Sreejesh, 2015). In their research, Vashisht and Sreejesh (2015) have stated that in order to be persuasive, the brand placement within the advergame should be prominent. Otherwise called product placement, this element is manifested in games in different manners: by including the brand name, the product packaging, a picture of the product, the logo, and any other trademark merchandise of the brand. Although it is usually presented in the form of visual cues, product placement is not limited to this modality and could be presented in the form of music, jingles, and/or included in the dialogues, explanations, and written cues (Karrh, 2012). For these reasons, this mechanism can be expected to be integrated in the game through the placement of either the brand name, logo, product, music, and jingles or a combination of these elements that allows the player to recognise the brand (Karrh, 2012; Vashisht & Sreejesh, 2015).

This type of persuasive mechanism tends to have an impact on brand recall and brand awareness; however, it does not seem to have an effect on brand attitude. Redondo's (2009) research has brought the suggestion that the combination between a "free ad-supported game", namely an advergame, and brand placements allows for the positive effect to directly transfer from the game to the brand. As mentioned above, recognising the persuasion attempt might have a positive impact on players who already have experiences with online games, as they are more prone to accept the attempt. However, the placement of brand logos and/or product can also have a negative effect when the player is less experienced and identifies the persuasion attempt because it is likely that persuasion knowledge will be activated. This effect can be counterbalanced when the game is entertaining and fun enough for the individual player (Redondo, 2009). In multiple studies, brand placement was found to be helpful when wanting to increase brand recall, image, and brand preferences (Dens, De Pelsmacker, & Vervellen, 2018; Bressoud, Lehu, & Russell, 2010; Van Reijmersdal, Neijens, & Smit, 2007; Auty & Lewis, 2004).

Brand integration

This persuasive mechanism can be described as the way designers integrate the brand within the game (Lee, Choi, Quilliam, & Cole, 2009). This element is highly related to brand placement. Usually, brands are integrated as game components that the player can actively interact with, billboard ads in the game, or displayed around the game's frames (Lee, Choi, Quilliam, & Cole, 2009). In other terms, brand integration can also be described as a form of procedural rhetoric (De la Hera, 2014). This type of rhetoric allows for persuasion through "rule-based representations and interactions rather than the spoken word, writing, images or moving pictures" (Bogost, 2007). Studies have shown that in regard to advergames, being able to interact with the branded product evokes an imaginary experience within the player

that then translates into a positive attitude towards the brand (Lee, Choi, Quilliam, & Cole, 2009). Furthermore, according to Lee, Park and Wise (2014) brand integration might be reflected in the game by having the customer interact with the brands by clicking, dragging, or moving the product and/or brand on the game character and/or game environment. It would be possible to identify this persuasive mechanism within the game by seeing if the character the player needs to use is a product or the brand logo. Another way, it is possible to have integration is to have the player interact with the product in order to gain some clues on how to continue the game or by having the player collect the product as a way to gain more points (Lee, Choi, Quilliam, & Cole, 2009; Less, Park, & Wise, 2014).

Research on the topic of brand integration and its effects has led to different results. There have been supporting arguments for both positive and negative brand effects (Okazaki & Yague, 2012; Gross 2010; Kinard & Hartman, 2013). It was suggested that if the brand and the features of the game are integrated correctly according to the brand industry, brand message, and product category; this should allow the player to have a heightened sense of brand recognition and positive affect transfer (Kinard & Hartman, 2013). However, it has also been argued that this higher integration of the brand within the game could activate persuasion knowledge more easily and therefore, cause the users to have a more negative brand attitude towards the game and the brand (Friedstad & Wright, 1994; Kidnard & Hartman, 2013).

The autonomy afforded by the game to the player

Being autonomous is associated with freedom of thought, being able to choose and make decisions based on personal conscious opinions (Pavey & Sparks, 2009). In the context of advergames, autonomy "deals with the degree to which the dialectical or argumentative

potential is realised in and through the game" and "explains the relationship between the game and its context" (De la Hera, 2012; Smith & Just, 2009).

Games can be designed in a way that allows the player to not need any additional information in order to play the game because everything is introduced in a self-explanatory manner. They can also be designed in a way that the player needs to seek additional information not provided in the gameplay and the player will have to seek out this information in order to complete the game.

This concept could be understood as varying on a spectrum from full autonomy to none. There is no proof to make a statement regarding which side of the spectrum is more persuasive compared to the other (Smith & Just, 2009). According to Sreejesh, Anusree, and Abhilash (2018) in order to reach a better level of persuasion, it is important to design games that are self-explanatory. As a result of their study, advergames that are higher in autonomy were found to increase brand attentiveness and memory (Sreejesh, Anusree, & Abhilash, 2018).

Autonomy could be integrated in the game through the use of tutorials. If the game provides a tutorial, the player will be able to understand how to play the game without having to look for information outside the game itself. Another way in which autonomy might be portrayed in the games is when the player is able to make their own decision. At times, games could provide different options for the player to choose and the story would change accordingly (Sreejesh, Anusree, & Abhilash, 2018).

The game-goal-message-goal overlap

Another important persuasive mechanism is the game-goal-message-goal overlap mechanism. A game is able to convey a message through the use of game narratives. Game

narratives can be reflected in the games by using story lines, stimulation, and interaction (Ritterfeld & Weber, 2006; Roettl, Waiguny, & Terlutter, 2016). According to different studies, a game is likely to have a higher chance of persuading players if it provides consistency when it comes to the message embedded in the game and the story it provides to the player. It is important to fit the brand's message in the story and the rules of the game (Bogost, 2007; Roettl, Waiguny, & Terlutter, 2016).

In the context of advergames, games' stories and goals should fit with the message of the brand by reflecting either what the brand stands for or the type of products it produces. Preferably, there should be a relation between the product category of the brand being promoted and the content/goal of the game. When a game is designed to promote a brand of cars and the game is designed to have the player race with the cars, it prompts game-product concurrency which results in higher brand recollection. In order to convey game-goal-message-goal overlap, the advergame's theme and storyline should reflect to some extent the product category of the brand it is promoting. It is also possible to achieve this mechanism, by allowing the player to interact with a product and allow them to use the product as they would be using them in real life. For example, if the game is promoting a cereal brand, a way to reach game-goal-message-goal overlap would be to have the player mimic the action of eating the cereals (Gross, 2010).

Furthermore, congruence can be achieved on four levels: functional, lifestyle, image, and advertising. It can be functionally congruent in terms of the brand being the centre of the game; lifestyle in terms of the style of the game is congruent to the style of the brand; the image of the brand contributes to the game; and the product category fits the game. Having this type of overlap proved to increase brand memory and brand awareness (Gross, 2010). This persuasive mechanism was found to improve brand memory and brand attitude (Roettl, Waiguny, & Terlutter, 2016); on the contrary, other studies have found that incongruence,

thus the misfit between the game goal and the message goal, could also improve brand recall and brand memory but at the same time, it could cause the player to experience a lower level of brand attitude (Balasubramanian, Karrh, & Patwardhan, 2006; Bhatnagar, Aksoy, & Malkoc, 2004). Game-goal-message-goal overlap is closely related to the concepts of reciprocity, procedural rhetoric and instrumental conditioning; but also with the other persuasive mechanism of brand integration, because it was found that the player will have a better liking for the game and for the brand (Roettl, Waiguny, & Terlutter, 2016).

Entertainment

As stated in the introduction, one of the main reasons that were found to be behind the engagement of players with advergames are fun, curiosity, and competition, which are components of entertainment (Lee & Youn, 2008). Entertainment is subjective in nature and it has been defined in different manners depending on the discipline and the person who is attempting to define this concept. According to Waiguny, Nelson and Tertuller (2012) entertainment can be understood in terms of an enjoyable feeling a person feels during the exposure to a certain media, usually this feeling also persists after the exposure is over. Entertainment is a main element in learning and persuasion. In their study, the researchers have tested that if a person has feelings of entertainment while playing an advergame, they will have a more positive evaluation towards the brand promoted. From their point of view, an advergame should offer an immersive and fun environment which presents the players with an optimal level of challenges. Entertainment could be integrated in advergames in many different ways. For example, entertainment could be initiated by allowing the player to share their scores with friends or by presenting elements of competition within the game play. Moreover, it is possible to entertain players by allowing them to choose their own story-ending (Waiguny, Nelson, & Terlutter, 2012).

This persuasive mechanism is used together with education in media in order to prompt a positive effect on behaviour, attitude, and knowledge (Moyer-Gusé, 2008). According to her research, entertainment combined with a learning goal might have a better effect than traditional persuasive attempts because it will cause the user to have a harder time recognizing the persuasion effort and cause less reactance by integrating the message inside the game play. Furthermore, another reason that could help explain why adding entertainment as a persuasive mechanism might lead to higher level of persuasion, is that when an individual seeks out games to play for entertainment, the level of willingness to engage with advergames and therefore, being exposed to the persuasion attempt is higher than when compared to other traditional forms of advertising (Roettl, Waiguny, & Terlutter, 2016).

In the areas of games, entertainment could be broken down to multiple elements: narrative involvement, involvement with characters, identification with characters, wishful identification, similarity, parasocial interaction, and liking (Moyer-Gusé, 2008). Narrative involvement explains the feelings of engagement and participation of the player towards the narrative of the game instead of their immediate surrounding. It involved being emotionally and cognitively connected with the actions that develop within the story line. Involvement with the characters can be considered an umbrella term of the other entertainment's elements following the list above: identification with character, wishful identification, similarity, prosocial interaction and liking. The idea behind the element of the identification with character is that the player gets both emotionally and cognitively wrapped with the character's role and narrative and the player starts to view the story from the point of view of the character. Similarly, when a player looks up to a character and starts to emulate its actions, this is when the person is experiencing wishful identification. Similarity occurs when the player starts to look for similar characteristics, personality traits and attitudes between the player themselves and the characters of the game being played. Additionally, parasocial

interaction happens when an interpersonal relationship develops between the player and the character, with the difference that the character is not able to reciprocate this relationship. Lastly, liking defines the attraction, affinity and positive evaluation that the player has for the character (Moyer-Gusé, 2008).

Word-of-mouth and social integration

Word-of-mouth and social integration can happen both offline and online, and it has shown to be the main element to influence customer's intention and behaviour towards a product or brand (Hennig-Thurau, Gwinner, Walsh, & Gemler, 2004). Online word-of-mouth takes it a further step by allowing the customer to create and spread their own opinions and reviews on specific products. The online environment allows the users to create communities based on common interests, passions and personalities which might make it easier for the user to share their view on specific products and/or brands. Online word-of-mouth or most commonly called electronic word-of-mouth (eWOM) comes in various platforms, such as social media platforms, forums, websites, review pages, and more. In advergames, this mechanism can be integrated through the use of social media icons to prompt the players to share the game with their network. Another way to prompt eWOM would be to add the option to share their scores with friends, have a multiplayer option, or by giving rewards if the players connect their social media account to the game (Henning-Thurau, Gwinner, Walsh, & Gemler, 2004).

Some reasons behind why people engage in this type of communication have been studied and identified as the following: product-involvement, self- and other-involvement, message-involvement, self-enhancement, concern for others, message intrigue, dissonance reduction, altruism, advice seeking, and vengeance (Dichter, 1996; Engel, Blackwell, & Miniard, 1993; Sundaram, Mitra, & Webster, 1994; Henning-Thurau, Gwimmer, Walsh, & Gemler, 2004). Taking this back to the topic of advergames, when players like the games,

they are more likely to share their experience with their peers and social groups (Roettl, Waiguny, & Terlutter, 2016). This phenomenon will result in a higher impact of persuasion on their players because they will play the game more repeatedly and therefore, will be more exposed to the persuasive attempt within the game (Waiguny, Terlutter, & Zaglia, 2011). In a game, this type of social interaction can be achieved by giving the player the opportunity to virtually share the game through social media or to challenge friends online which has proven to help with the increase of the feeling of entertainment. It can also be achieved by allowing the player to share scores with peers that would also enjoy the game and engage in further competition with the initial user (Roettl, Waiguny, & Terlutter, 2016).

Commitment and consistency

Commitment and consistency have been found to have an impact on brand loyalty, brand switching and attitude strength. Providing the consumer has a strong or weak previous attitude toward a specific brand, some evidence has been found on the idea that the context of the game can be important in leading to minimal or significant changes in attitude towards that brand (Agrawal & Maheswaran, 2005). This concept can be seen in terms of people being consistent with their own beliefs and holding a consistent attitude across different situations, opinions, objects, and preference (Cialdini, 2007; Agrawal & Maheswaran, 2005).

In their study, Oinas-Kukkonen and Harjumaa (2009) have found some evidence that if the game provides instances for the user to create a sense of commitment and of consistency, then the individual is found more likely to be persuaded by the game and the brand message. Consistency might lead to a change in attitude when the individual experiences cognitive inconsistency. This inconsistency causes feelings of discomfort and distress in people and therefore, leads them to seek out a way to reorganize and find a feeling of balance in their thoughts. Differently to the paper mentioned above by Agrawal and

Meherswaren (2005), Oinas-Kukkonen and Harjumaa (2009) argue the fact that providing arguments that go against an individual's personal beliefs, might lead to a deeper and more effective form of persuasion.

Circling back to the topic of advergame's persuasion, it is hard if not impossible to create a game accommodating everyone's individual beliefs, it has been studied that the advergame should offer some challenges within the narrative of the game in order to prompt a sense of commitment within the player. By prompting the player to play more often with the game, the persuasive message of the game is repeated more often, and this increases the chance that the message will persuade the player in a positive manner (Waiguny, Nelson, Terlutter, 2012). On a designer level, a high sense of consistency and commitment could be reached by augmenting the personalization of the game by for example allowing the user to sign in the game with their own name, giving them the ability to personalize their character, and more (Roettl, Waignuny, & Terlutter, 2016).

Visual argumentation

Visual argumentations are usually used in more traditional advertising channels, such as television and newspaper. Two examples of visual argumentations or otherwise called visual metaphors are presented below (Image 1 and 2). Image 1 was created to increase awareness on the danger of global warming. In this image instead of using a normal ice cream cone melting in the sun, the ice cream is replaced with an image of the earth to convey the message of the earth melting because of global warming. In Image 2, the man is portrayed as pregnant reflecting the slogan of the brewery and conveying that their beer is "Brewed with love".
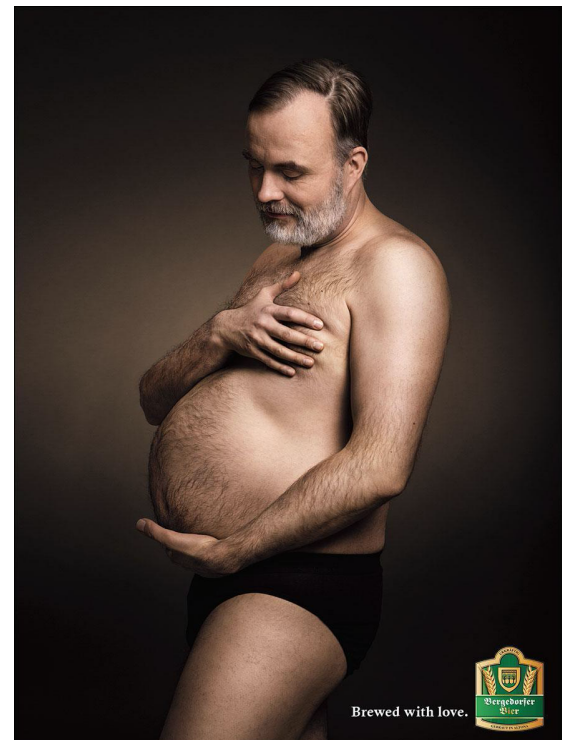
Figure 1. Melting Away: Join Friends of the Earth and help save the planet before it's too late. From *Friend of the Earth,* 2019, https://friendsoftheearth.uk

Figure 2. Brewed with Love by Jung von Matt. From *Bergedorfer*, 2016, https://www.thedrum.com/creative-works/project/jung-von-matt-bergedorfer-brewed-love

Adding virtual argumentations to the game environment has proven to have some effect on the learning process of the player (Germanchis, Pettit, & Cartwright, 2010). According to their study, virtual metaphors, which is part of what they have called the evaluation framework, create this framework together with the virtual gaming environment and the user. The virtual environment or virtual world is the digital representation of the landscape in which the game takes place. In order to create the most realistic virtual world for the user, the designer might want to take into consideration different elements, such as the following: virtual landscape and architecture, allow the user to browse around the landscape

and provide them with real-time movements, allow the user to interact with the pieces of the

environment, adding sounds and animation close to the real-world experience, and use high

quality graphics. The second element is the virtual metaphor. It is possible to enhance the

user perception of the message embedded within the game, by integrating metaphors and the

user's capability to understand the spatial data. The metaphors can be used within the game

by implementing a variety of multimedia devices which allow the user to interact and

navigate among the virtual physical objects in the landscape created during the development

of the virtual world (Germanchis, Pettit, & Cartwright, 2010).

There are three types of metaphors modes used in games: the storyteller, the

gameplayer, and the guide. By using the storyteller mode, it is possible for the player to gain

more information about the message, the brand, and the game itself. By using the

gameplayer, the player is forced to understand and gain a deeper understanding of the

patterns of how the game develops, and therefore, gain a better insight in the message, the

brand, and the game. Lastly, by using the guide mode, every information and message is

tailored to each individual player which allows the player to have an easier method of finding

the information they are seeking out while playing the game. The last element of the

evaluation framework is the user themselves. The user is a very important part of the

designing process because it is necessary to understand how the individuals interact with the

game and the information provided to them (Germanchis, Pettit, & Cartwright, 2010).

Circling back to advertising and advergames. These metaphors are used in advertising

to convey meaning in a more creative and unique way, without losing the context of the

brands being promoted (Siri, Halim, Hassan, Mat, & Ali, 2018). Visual argumentation

implies two types of mechanisms, namely metaphorical rhetoric and visual modality (Jeong,

2007; Roque, 2009). Metaphors are used when two unrelated objects are compared with each

other and the characteristics of one object is project to the other object; while visual modality

means that instead of using a verbal argumentation as to why dissimilar objects are

analogically linked, visual metaphors only use visuals to explain its metaphors, thus

providing a visual argumentation (e.g. comparing the process of brewing beer to the process

of giving birth to a child in the Bergedorfer Beer's campaign "Brewed with Love" (Image

2)). Because the audience is likely to spend more time thinking about the metaphor and

processing the message, this type of persuasive mechanism might often lead to a greater level

of influence and persuasion (Jeong, 2007; Roque, 2009). Thus far, there is no research on

whether this persuasive mechanism has been applied to advergames. Considering the higher

persuasive effect provided by this element, it is considered of importance to see if and how

this has been implemented in newer channels of advertisement, such as advergames.

Development throughout the years

Video games have gained popularity and established themselves as one of the main forms of

entertainment throughout the 21st century, mainly because of their accessibility to the

population (Kowert & Quandt, 2020). The main point of difference between video games and

traditional forms of media and entertainment, is interactivity. Instead of having an individual

simply sit in front of a screen and visualise a story, like it happens when a person sits at a

cinema; through the use of video games, the user is an active participant of the story and can

make changes to it by choosing the characters' actions. It is important to keep in mind that

there are limitations and restrictions to the freedom of the player because to a certain extent

they need to follow the games' rules. Although, it needs to be noted that in recent years, the

players' freedom and ability to choose has grown because of the development in the

technology and video games' graphics (Muriel & Crawford, 2020).

Throughout the years, video games have become more and more complex since they

first appeared in the public market. The use of immersion, storytelling, and interactivity allow

the player to decide the course of the game, making it possible to have very different stories within the same game. Video games have also developed in terms of graphics quality both regarding the landscape representation and character representation. Further development can be seen in regard to the accessibility of the game, which consoles the players are able to play the games on and in regard to the extent of immersion a user is able to achieve when playing the game. Games have been becoming more and more complex also in regard to their stories, activities, and processes, which all have an impact on the learning experience of the user and their behaviours (Shoshani, Braverman, & Meirow, 2020).

After taking into consideration the explanations regarding the persuasive mechanisms originally found by Roettle, Waiguny, and Terlutter (2016), and after the explanation and overview of the mechanism of visual argumentation was given, to understand how this mechanism can be translated from traditional media to the more recent technologies, and considering the developments in the area of video games explained above, it is important to see if and how the persuasive mechanisms in advergames have changed over time. In order to obtain answers to the research questions mentioned above, an overview of the method used for the research is given in the following section. The sampling strategy and the final sample have been laid out. The conducted pre-test is discussed and lastly, the overall data collection procedure is explained.

Methodology

Research design

A content analysis was chosen to study the persuasive mechanisms used in current advergames and to provide an answer to the research questions listed above. This method is often used to research topics in advertisement, marketing and communication (Barker, 2017). Content analysis has been defined as a "method of studying and analysing communication in a systematic, objective or subjective, quantitative and/or qualitative manner for the purpose of measuring variables" (Kerlinger, 1986; Flick, Kardoff, & Steinke, 2004; Schreier, 2012). This is one of the preferred methods to analyse advergames and their persuasive mechanisms because it allows to obtain knowledge about the content, such as the persuasive mechanisms used, of such games (Walfall, 2011). Furthermore, new and different advergames have come out since then. It is interesting to see how these advergames have evolved and how the persuasive mechanisms in these games have changed overtime. For this reason, a qualitative content analysis was used. The advergames have been categorized based on the persuasive methods they presented. Before initiating data collection, the coding scheme developed has been tested through a pre-test. The final coding scheme was adjusted according to the results of the test and used for the remaining of the data collection phase. A total of 40 advergames and 5 YouTube video clips have been used in this research.

Sampling

A total of 40 advergames have been selected for the goal of this research. For the game to be considered an advergame, a few requirements were set: the games had to be developed for a specific brand/product, the logo of the brand had to be present within the game, was free to download/play and provided free access or free registration to the player. Furthermore, in order for the advergame to be included, it had to be downloadable on an IOS device,

Android, or playable on Google Chrome and/or Safari. The advergames were selected among the ones available on different online game platforms (http://www.oneonlinegames.com/, https://www.freeonlinegames.com/?ref=icon, https://www.plinq.co/advergames-by-year, https://www.y8.com/) and a list of advergames used in previous study by De la Hera (2014).

After looking at the lists of games available (256), the games that did not have the requirements listed above were excluded. After this first selection, there were 173 games left. Then, a quick search showed that advergames created before 1992 were not available anymore which led to the exclusion of all the games created before that year and sample was reduced to a total of 151 games. Afterwards, newer games which require additional equipment (e.g. virtual reality goggles) or that only had a paid version available were excluded from the sample, leaving 136 available games. Games that required an older version of IOS 13 and an older version of Android OS 8 were excluded from the sample as well. Some games, originally developed for mobile, could not be found either on the AppStore nor on Google Play and therefore, were removed from the sample and left 89 games. After a search of advergames compatible with the available Android (S9+ Samsung Galaxy) and IOS (iPhone X and Mini iPad) devices, the list of games available amounted to 53 games in total. The 40 advergames needed for this research were found in this list.

According to previous literature (Lee & Youn, 2008; Lee, Choi, Quilliam, & Cole, 2009; Paek, Quilliam, Weatherspoon, Rifon, & Lee, 2014), most advergames have been developed for the food industry; and some advergames have been developed for products such as supermarkets, and broadcasting channels, and a few games have been developed for products such as vehicles. From the remaining sample, the advergames left also showed this proportion of industries' division, meaning that more games were created for the food industry, while less games were created for the automotive industry. A complete list of the chosen advergames is provided in the table below (Table 1) and a table with the game links

can be found in the appendix (Appendix A). The overview of the amount of advergames

selected per category is presented below in Table 2.

Table 1.

Advergames sorted by year.

N (40)	Year	Brand/Product	Name
1	1992	Quavers	Pushover
2	1998	Dommelsch	Roll em up / Pool 'm up / Dart 'm up
3	2001	Kinder	Kinder Joy
4	2002	America's Army	Army Operations
5	2007	Coke	Coke Zero Retro Electro Football
6	2008	Cartoon Network	Flapjack Adventure bound
7	2008	Dairy queen	DQ tycoon
8	2009	Nickelodeon	Rugrats Jungle Stumble
9	2009	Pepsi	Max Breakout
10	2009	Ubisoft	Teenage Mutant Ninja Turtles - Double damage
11	2009	Volvo	Volvo - The Game
12	2010	Cheetos	Battle of the Cheetos
13	2010	Hermes	Millie's Christmas Delivery Challenge
14	2010	Kmart	Protege Stick Basketball
15	2010	Marvel	Stark Tower Defence
16	2011	Energizer	No extra charge
17	2011	Nickelodeon	Sponge Bob Square Pants: Bikini Bottom Carnival Part 2
18	2011	Qatar Airways	Arctic Ascent
19	2012	Cartoon Network	Hole in the Wall - Twisted Figures

20	2012	Froot Loop	Black Beak's Treasure Cove
21	2012	Gillette	Soccer mobile
22	2012	Tic-tac	Melon Mango Mayhem
23	2013	BBC	Wallace's workshop
24	2014	Hope lab	Re-Mission 2: Nanobot's Revenge
25	2015	Oracle	Oracle Cloud Stacker
26	2015	Paramount	Scouts Guide to the Zombie Apocalypse
27	2016	Albert Heijn	AH Dino's
28	2016	Burger King	Angriest Whopper
29	2016	CBC	CBC Hockey Hero
30	2016	Century Fox	Animation Throwdown: The quest for Cards
31	2016	Disney	Magic Kingdoms
32	2017	American Honey	Escape the Office
33	2017	Oreo	Oreo: Twist, Lick, Dunk
34	2017	RBS 6 Nations	Touchdown Pro
35	2018	Red Bull	Bike Unchained 2
36	2018	Total	Total Excellium
37	2018	Walmart	Spark City
38	2019	KFC	I love you, Colonel Sanders
39	2019	Hot Wheels	Hot Wheels Racer
40	2019	Monster Energy	Monster Energy Supercross 2

Table 2.

Advergames' industries.

Industries	Total n = 40 (%)
Food	10 (25%)
Broadcasting channels	8 (20%)
Drinks	7 (17.5%)
Electronics	4 (10%)
Supermarkets	3 (7.5%)
Automotive	2 (5%)
Others	6 (15%)

As stated above, multiple games that came out in the last four years have been using more advanced platforms, such as VR and it was not possible for the researcher to personally play them. To gain a better and more explanative answer to the third research question, some YouTube videos providing a play-by-play overview of the newer games which could not be downloaded or personally played by the research have been added to the sample. In order for the YouTube clip to be included, it had to provide a complete overview of the game, the video had to be centred on the game with a voice-over from the creator of the video. A list of the clips used is provided in Table 3 below.

Table 3.

YouTube videos.

N	Year	Brand/Product	Name	Link
1	2016	Doritos	Doritos VR Battle	https://www.youtube.com/watch?v=BdH45pLCMJE
2	2017	KFC	The Hard Way	https://www.youtube.com/watch?v=vb7GYATYArE
3	2017	KLM	Aviation Empire Platinum	https://www.youtube.com/watch?v=GjSLhSgomI8
4	2018	Monopoly	Monopoly Zombie Board Game Challenge	https://www.youtube.com/watch?v=xuZEu1fcyw4
5	2019	Spider-Man	Spider-Man Far from Home	https://www.youtube.com/watch?v=a-OdV0M1YWA

Pre-test

A pre-test was conducted to evaluate the coding scheme created so far. The advergame "Oreo: Twist, Lick, Dunk" was used for this. This game was tailor-made for the cookie brand Oreo. This pre-test lasted roughly around 60 minutes.

The main researcher played the game and analysed the persuasive mechanisms encountered throughout playing the game. Every time a persuasive mechanism was identified, it was also described to be able to create a good overview of how these persuasive mechanisms present themselves within the game chosen. To ensure intercoder reliability, the pre-test was also conducted by a second independent researcher who agreed to help. The main finding of this test will be presented below.

The idea behind the game and how the player had to play the game was briefly explained at the beginning through a small tutorial, and this showed that there is autonomy within the game.

Both brand placement and brand integration were present in the sense that the Oreo logo was first presented at the beginning of the game when the game was starting up and then again in the main menu of the game. Brand placement also manifested when the main goal of the game was to dunk cookies in a glass of milk, the cookies had the brand logo on them. Furthermore, the player was able to buy different kinds of cookies of the brand, and all of them had the brand logo on them. Brand integration was also used because a player is able to interact with the brand, in terms of dunking the cookies and also the background of the game presented similar colours, (light) blue and white, to the original packing of the brand. This also showed that the goal of the game, dunking different Oreo cookies in a glass of milk, is consistent with the brand and related products, so in this case this is how game-goal-message-goal overlap and commitment manifested themselves within this game. The persuasive mechanism of commitment is also shown in this game through giving the player the opportunity to buy more and different cookies from the Oreo brand which are the same people buy at the supermarket.

In the game, it was possible to see the player' score, and it was possible to share this with friends and/or compare them with local players. It was possible to do this sharing through social media, such as Facebook and Google. These features show that the developer of the game also took into consideration the following persuasive mechanism: entertainment and word-of-mouth and social integration.

The player had the opportunity to combine two cookies together to create the Double Stuff Oreo cookies and when doing this, a licking sound would be used to go along the

animation. Furthermore, when the cookies would be dunked into the glass of milk, a slurping sound was used. The background music was found to be too loud. Both the sounds and music were muted after a couple of minutes of starting the game by both the coders. This could also be caused by a design flaw; however, the sound was tested on different devices. When the music and sounds can be excluded from being due to a design malfunction, they will be coded. For this reason, the code "Music and Sounds" was created to understand if these elements could have an impact on the effects of the game on the player.

The code "Commitment and consistency" was split into two different codes, one called "Commitment" and one "Consistency" in order to reflect the distinct concepts. This was done because the two terms are believed to entail two different elements that could be present simultaneously, but one can be present without the other. "Consistency" can be seen more in terms of the game being consistent with the theme of the brand and the game being consistent throughout its gameplay; while commitment can be seen more in terms of a personal sense of engagement with the game that prompts the player to play the game more frequently. The "Autonomy of the brand message" code has been assigned another meaning. The code has been changed to "Autonomy of the game" which will identify whether the game has a tutorial which explains how to play the game to the player. This has been done because the transmission of the message of the brand/product is already reflected in the codes of "Game-goal-message-goal overlap" and "Consistency".

Data collection

After analysing the pre-test, the coding scheme was changed according to the results of this pre-test. In order to answer the first and second research questions, the researcher based the content analysis coding scheme on the literature explained above. This means that the advergames have been categorized within the persuasive mechanisms of brand positioning,

brand integration, autonomy of the band message in the game, game-goal-message-overlap, consistency, entertainment, word-of mouth and social integration, commitment and visual metaphor. This has been considered the starting coding scheme. The persuasive mechanisms have been identified, categorised, and explained for each game selected.

Lastly, the researcher analysed and compared the older games to the ones created later than 2016. The research was still based on the categorization of such games on the theoretical framework provided above, however, attention was paid more closely to see if any new persuasive mechanisms have been used and in understanding if the already mentioned mechanisms have evolved with the technology. Therefore, the coding for the answer of this research question has been mainly based on the literature already explained.

Before coding the games, some rules were formulated in order to make sure that everything was coded in the same way. The codes were categorized in a sentence-based manner and an element could be coded multiple times to ensure that all relevant aspects of every persuasive mechanism found was reflected in the codes. An example of this is when the avatar of the game was a product of the brand being promoted, in this case, this was categorized as both 'brand placement' and 'brand integration' and there was no hierarchy between the codes.

To understand the inter-rater reliability, 4 games were coded by the main researcher and a third neutral party at the beginning of the data collection. The coded games were then compared and analysed to understand if each code corresponded to the same elements in the game according to both coders. The Cohen's kappa, which was used to understand the inter-rater reliability in this study, was 0.65. A moderate Cohen's kappa means that the coding scheme is sufficiently accurate and correct for the researcher to continue the data collection with the current coding scheme.

The games were played and each persuasive mechanism that has been identified was also categorized according to this coding scheme and the rules mentioned above. The data collection took an average of 30 minutes per game, with the test raging from just under 6 minutes to a maximum of 60 minutes.

Coding scheme

The initial coding scheme for this research is based on the literature that has been presented in the introduction. As discussed above, the pre-test has been conducted to explore and assess the initial coding scheme and it was adjusted and changed according to its results. The final coding scheme has been developed with the help of descriptions and examples extrapolated from the pre-test. The coding scheme with the codes' names, descriptions, and examples is presented below (Table 4). The persuasive mechanisms have been coded according to the adjusted coding scheme.

Table 4.

Coding scheme

Codes	Descriptions	Possible answers
Brand placement	How is the logo of the brand used in the game?	1. Logo is present in the menu screen 2. Logo is present in the background of the game
Brand integration	Is it possible to interact with the brand logo/product? How can you interact with the product?	1. The product/logo can be collected 2. The product/logo can be used 3. The game conveys information about the product/logo
The autonomy of the game	Do you need extra information to play the game? Do you know intuitively how to play the game?	1. The game provides a tutorial 2. No extra information are required to play the game

The game-goal-message-goal overlap	How is the goal and/or theme of the game related to the brand/product it promotes?	1. The game has a clear communication goal 2. The slogan of the company is integrated in the game 3. The message of the company can be recognized
Consistency	How is the game consistent with the brand/game?	1. The product category matches the game content 2. The game matches the company explicitly
Music and sounds	How are the music and the sounds of the game?	1. Both music and sounds are present in the game 2. They can be muted
Entertainment	Is the game entertaining? How does the game keep you entertained?	1. The game is perceived as fun 2. The game allows to share scores 3. There is competition
Word-of-mouth and social integration	How can you share the game?	1. The player can invite friends to play the game 2. The social media icons are present in the game 3. Friends are needed to make greater progress in the game
Commitment	How does the game keep you committed and how can you personalize the game?	1. The games asks the player's name 2. The player needs to complete different tasks 3. The player can buy new gadgets as the game progresses
Visual metaphor	How does the game use different elements within the games to show or illustrate the brand?	1. Different elements are used to show the product category 2. Different elements are used to represent the brand/product 3. Different elements are used to convey the company message

Results

The majority of the games that have been used in this study presented all the persuasive mechanisms that have been gathered from the literature presented in the introduction of this research. The persuasive mechanism of brand placement was present in all of the games. Quite a lot of them also used brand integration, social integration and entertaining elements. Some games presented commitment, consistency, game-goal-message-goal overlap and autonomy of the game. It was decided to integrate the two mechanisms of game-goal-message-goal overlap and consistency together, an explanation of why this was the case will be given below. The persuasive mechanisms of autonomy of the game and music and sounds mechanism will also be explored further. The least present persuasive mechanism used was the one of visual argumentation. A better overview of this mechanism will be given below.

The logos of the advertised brands were shown at the beginning, in the menu screen of the game therefore it was easy for the player to immediately understand for which brand was being promoted. In many of these games, the category of the product was reflected in the game and enhanced the mechanism of consistency and game-goal-message-goal overlap. For example, if they were promoting a brand related to food, the game would be related to food in some way or another. A lot of the other persuasive mechanisms were embedded and subtle in the games' surroundings and story lines. As mentioned above, throughout the data collection, the researcher has made changes to the codes that were initially used when starting to collect data. A further explanation of these persuasive mechanisms can be found below.

Brand placement and integration: As already mentioned, brand placement was the only mechanism present in all of the games selected and used in this research. This type of placement was very prominent in all of the games, meaning that it was the first thing that caught the attention and the brand promoted was immediately recognizable. It came in the

form of either logo and/or product placement as an example: in the Oreo game, the player

was presented with both the logo of the company and the Oreo cookies that people buy at

supermarkets; or in the AH Dino's game made for the Dutch supermarket chain, where it was

possible to see both the logo of the supermarket, the mascot and the product sold in those

supermarkets. In many cases, the logo and/or product placement could be found in one of the

corners of the screen and it was usually present in the menu screen of the games. Although,

the placement could sometimes also be found in the middle of the screen, embedded in the

background of the game or when the games were loading, brand placement would make up

the largest element on that particular screen. Some examples of how this persuasive

mechanism was presented can be found in the images below (Image 3).

Image 3. The Burger King logo is visible throughout the game; while the Whopper burger

promoted is visible when playing the game itself. Angriest Whopper Game. From

Gamewheel, 2020.

By allowing brand placement to have such a big presence on the initial screen, the player knows right at the beginning for which brands each game was made for. When presenting the logo during the loading screen and/or the menu, it should be noted that it is possible for some player to recognize the persuasion attempt and therefore, activate their persuasion knowledge and relative defence mechanisms. However, by having the logo always present throughout the whole game, it is possible for the players to be less aware of the attempt the more they play because the logo tends to be smaller and more embedded when playing the actual game, so less attention will be focused on the logo itself. Furthermore, when the logo was only presented once throughout the game, it was harder to notice and remember that the game was actually created with the intent of promoting a brand. In some games, such as America's Army game and the DQ tycoon game for Dairy queen, it was easy to overlook the fact that they were games made specifically for these two organizations and companies. For example, in the Army Operations game, the player had to learn how to combat in war like scenarios and it resembled any other war game that can be found nowadays; making it harder to notice the fact that it was a recruitment game for the Army, which was mentioned just a couple of times at the beginning of the game.

Closely related to this concept, there is also brand integration. This mechanism was present in quite a lot of the games chosen in this research. For example, in Melon Mango Mayhem and Kinder Joy, the player's character was a Tic Tac and a Kinder egg, respectively (Image 4 and 5).
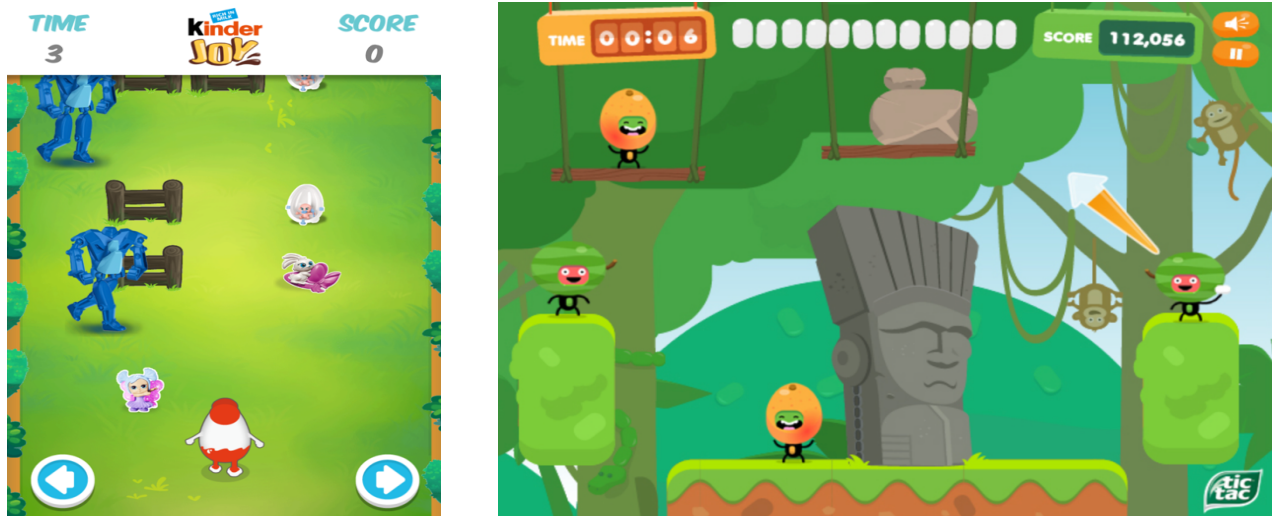
Image 4. The Kinder Eggs is being used as the character through which the player can play the game. The other elements in the games are also representing known gifts to be found when opening a Kinder Egg. Kinder Joy. From *Branded Mini games, 2020.*

Image 5. The four flavoured Tic Tac are the characters in this game. In their hand is a small mint Tic Tac which needs to be distributed to the other flavoured Tic Tac. Melon Mango Mayhem. From *Free Online Games, 2020.*

These two products were integrated in the games as the avatars. Both of them also presented elements of anthropomorphism, meaning that they were given human features such as eyes, legs, and arms. In Melon Mango Mayhem, the goal of the game was to feed Tic Tac to all the characters, which were also Tic Tac but anthropomorphised, both aspects reflect the mechanism of brand integration. However, they force brand integration by deducing game-goal-message-goal overlap and consistency because they endorse the idea that the Tic Tac eat themselves. This also does not relate to the message of the brand, which can be argued is not to promote cannibalism. Furthermore, this image which can be considered quite gruesome, could have a fair impact on the users and promote a higher sense of brand recognition and recall because of the possible feeling of shock it might cause the user. Differently but still

promoting brand integration, in Kinder Joy, aside from using the product as the avatar in the game, the player also had to collect fairies and blue robots. These two objects are similar presents to the ones a person would get when buying Kinder Joy for Girls or Kinder Joy for Boys.

This mechanism brings the brand placement to a higher level. Brand placement, as shown before, is simply placing the logo and/or product somewhere on the screen. It can be prominent by placing it at the beginning of the game and by having a big presence on the screen, but it can also be subtle if put in a small corner of the screen. With brand integration, the player is able to understand the brand better and have more of an experience with the brand. This type of mechanism also is less likely to activate persuasion knowledge as not everyone will recognize this attempt or will notice further along the game. With the examples above, the goal of the product is also conveyed in the actions that the players need to do in order to progress in the game. Although, in the Melon Mango Mayhem, the way the message itself was created can be considered quite disturbing, the player can understand that the idea is to eat the candies.

Game-goal-message-gaol and consistency: The mechanism that was initially called game-goal-message-goal overlap has been integrated with the gratification mechanism of consistency. The name of the code "consistency" was used over "game-goal-message-goal" because it was believed it was easier to grasp the general and full concept behind this mechanism by using this name. The reason why these two codes were combined was because all the games that presented game-goal-message-goal also presented consistency and also because, it was noted at the end that both codes expressed the same concept, namely that the game was able to convey the message of the brand through its game play and that it was consistent with the message, goals, values and ideas of the brand itself. Arguably, consistency has been defined as the idea that the game matches the product category of the brand, when

the game portrays the brand in an explicit manner or when it presents the message of the

brand or product in an embedded manner. This reflects the same idea behind the persuasive

mechanism of game-goal-message-goal overlap.

In Aviation Empire Platinum (Image 6 and 7), for example, the consistency was

emphasized in many ways. This game was created for KLM, the Dutch airline. The first start

of the game was set in 1919 which is when the airline was founded. The further the player

played the game, the further it would progress in the years until reaching 2017 which is when
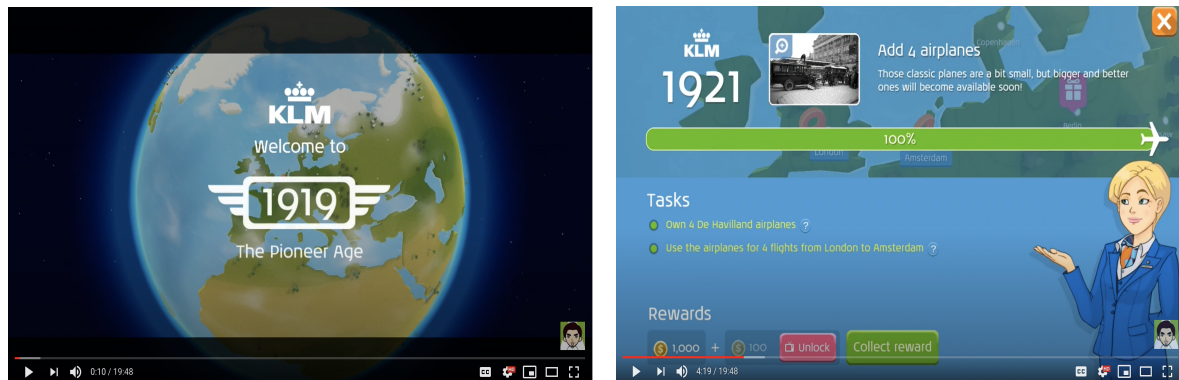
the game was developed.

Image 6 and 7. The beginning of the game is set in 1919 (Image 6). Throughout the game, the

player follows the story of KLM and each level is related to an important year for the

company (Image 7). Aviation Empire Platinum. From *Aviation Empire Platinum (Gameplay,*

Walkthrough #1), 2017.

This managed to convey a history and the progress of the airline, by providing

historical consistency of what happened throughout the development and growth of the

company. Furthermore, in this game, the player would start with only one airport in

Amsterdam and by the end of the game, the player would have airports all around the world.

These elements bring across the message and idea of the KLM brand across to the player.

Having a consistency between the message of the brand and what game portrays and presents

to the player, allows the player to understand and grasp the concept of the brand. This type of

mechanism is subtle and most often harder to identify than for example, brand placement and

integration. It also had a bigger impact than these other two mechanisms because it was

possible to follow a story and understand what the brand is really about instead of just

viewing its products and merchandise.

Another example of consistency can be found in Spider-Mar Far from Home. In this

game, the player was able to play as Peter Parker. The game starts in Peter Parker's room

which was the same one they showed in the movie, perfectly matching the last detail with the

Spider-Man suit in the closet for example, brining consistency between the movie and the

game (Image 8).

Image 8. The game starts in Peter Park's room which is a replica of the room seen in the

movie. Spider-Man Far from Home. From *Spider-Man Far From Home VR GamePlay

(PS4)(OSVR) PART 1, 2019.*

Once the game starts, the player would be brought along New York City and can use

the spider webs to browse through the city, while also hearing Ned, Peter's friend in the

movie, guiding the player through the city. At some point, a monster materialized out of

nowhere and the player goal is to stop this monster (Image 9). Once Spider-Man is able to

slow down the monster a little bit, drones would come out of it. This is also what happens in

the movies, when they discover that the monsters are not real but created from drones.

Image 9. The monster made of drones appears in the game. Spider-Man Far from Home.

From *Spider-Man Far From Home VR GamePlay (PS4)(OSVR) PART 1, 2019.*

In this way, the developers of the game were able to bring this element of consistency

in the game. It could be argued that it was easier to achieve a sense of immersion with this

game because it reflected a movie instead of a brand's message which could be seen as more

of an abstract concept when comparing it to a movie. This game was also supported by a

virtual reality technology which created a 3D environment for the player to fully immerse it,

which could have led to a higher sense of participation. It could also be discussed that

although all the elements in this specific games were brand placement and integration

because they were part of the movie and the brand, when a person engages with this they

could be less aware of the persuasive attempt behind it because they are more cognitively busy thinking about being the hero themselves and experiencing what it would be to be Spider-Man.

Autonomy of the game: The autonomy of the game was present in the majority of the games, with the exception of four (4) games. Indeed, most of the games presented a tutorial at the beginning of the game. A brief explanation was given every time to teach the player how to play the game, what needed to be done, and which was the end goal of the game. Sometimes, the player had to look for the tutorial by clicking on the "*How to play*" button while sometimes, the tutorial would be the first thing the player would see about the game. However, it should be noted that most games were really self-explanatory and did not require a tutorial as most of the time, they were very easy to pick up and play without introduction. Also, the impact of this mechanism on persuasion was not quite grasped, because as true as it is that tutorials make the games easier and quicker to understand, it did not make a difference in how the game was played and perceived at the end.

In mobile games such as Monster Energy Supercross, Magic Kingdoms, Bike Unchained 2 and Spark City, the tutorial and explanation on how to play the game was presented multiple times as the player would discover the game. In both Bike Unchained and Monster Energy Supercross, the player would get pop-ups when they had a race, when they wanted to learn bike tricks, or when they wanted to personalize their own bike. In Magic Kingdoms, the games and what the player had to do was explained in sort of a story telling manner. For example, at the beginning, the game would show this video clip on how Magnificent had put a curse on the castle. In order to progress in the game, Mickey Mouse has to do something to undo this curse. Merlin, the Wizard from "The Sword in the Rock", would appear in the form of pop-ups to explain what had happened and what had to be done

in order to undo the course. Examples of these pop-ups can be found below. (Image 10 and

11).

Image 10 and 11. Pop-ups narrating what is happening in the game and how the storyline of

the game would continue. Screenshot from Magic Kingdoms. From *Magic Kingdoms, 2020*.

This same thing would happen throughout the whole game, for example, when a new

character was introduced in the game. It would get its own introductory video clip and Merlin

would pop-up again explaining the player what needed to be done. This type of storytelling

tutorial allowed the player to understand the game better and to follow a story and understand

why certain events happened within the game. Arguably, it would be discussed that once

again, because the brand being represented here is Disney, a well-established media and

entertainment company, with characters that are recognizable globally, it is easier to promote

its products and messages because of the similarities reflected in the game.

Music and sounds: In terms of music and sounds, most games had both music and sounds.

Most of the sounds and music were, however, considered to be too loud especially if the

games were to be played for a long period of time. For example, when playing one of the

games, it was mentioned "*I put the sound off because although I lowered it a lot on the laptop*

it was still a little bit too loud for me" and "*the sounds and music […] yeah it would have*

been too much if I had to play around 20 minutes with it so it's nice that I could put it off". In

other instances, no music or sounds were used. This was the case especially in shorter,

simpler games such as the Angriest Whopper and Oracle Cloud Stacker. In Stark Tower

Defence, it was possible to mute either the music or the sounds or both.

In only one instance, the music was not perceived as disturbing, and this was in the

case of the Millie Christmas Delivery because they played "Dashing Through the Snow"

throughout the game which was fitting to the theme and activities of the game. This was the

only game that presented an actual song instead of a collection of sounds like the other games

did. It made it more pleasant and enjoyable to play the game because of the well-known song

that reminds people of Christmas and sets an atmosphere. It could be argued that having a

known jingle within the game, could help with increasing the time spent playing the game

and that as a person plays this game, they might sing along to the song, and overlook the

persuasion attempt.

Entertainment, commitment and social media integration: Many of the games that were

found for this study were usually targeted to children and therefore had elements which could

be considered entertaining to this target group. This was noticeable by the website the online

games could be found on ([http://www.oneonlinegames.com/,](http://www.oneonlinegames.com/)

[https://www.freeonlinegames.com/?ref=icon,](https://www.freeonlinegames.com/?ref=icon) https://www.plinq.co/advergames-by-year),

which are the free online website children usually go to when they play online. For example,

Stark Tower Defence, CBC Hockey Hero and Black Beak's Treasure Cove were developed

to have the younger audience as the target of persuasion. These games had elements that

made them appealing to a younger audience like for example simpler graphics, easier game

plays, and more straightforward tutorials and explanations; but also, these games were linked

to the external website which also promoted the Marvel Squad Kid Show and the CBC

version for kids. Both older and newer games had elements of entertainment, competition and

social integration. The concept of commitment was highly intertwined with the persuasive

mechanism of entertainment. It was noted on multiple occasions that it was rather unlikely to be able to feel committed to a game if it was not entertaining; however, this is not the case the other way around; it is possible to be entertained by a game and not feel committed to it.

The concept of entertainment is very broad and hard to strictly define. As shown above, it is possible to be entertained without having to feel committed to the game; however, as mentioned above in the literature, there are some elements which greatly help with creating a feeling of entertainment. In general, it is possible to be entertained by a very short 60-seconds game or by 1-hour long game with many different challenges or by both. Entertainment was related to the circumstances and the type of entertainment a person is looking for. In the literature, it was shown that the main point of advergames is that the players download voluntarily, and they are looking for a fun break and something to distract themselves with. It should be noted that if those are the circumstances and the goal for which this type of games is played, then all of the games used in this study did after all reach the goal of entertaining. It is important to understand that entertainment is broad, individual and hard to define in an objective kind of way. In a way or another, some elements of entertainment were present in all these games.

As seen already, entertainment could be broken down to a few elements: narrative involvement, involvement with characters, identification with characters, wishful identification, similarity, parasocial interaction, and liking. Narrative and character involvement were easier to achieve when the games were longer and presented a well-defined storyline, like for example in Magic Kingdom where the player is Mickey Mouse and is creating its own Kingdom; or when playing Double Damage and the player gets to be a Ninja Turtle. Both these elements were really relevant and achieved in Spider-Man Far from Home, as already explained above. However, shorter games were also able, on their own, to capture

the player's attention and accentuate these two components. For example, when Gillette's game Soccer Mobile allowed the player to compete by using real-life soccer players. It was harder to reach a sense of character and wishful identification, similarity and parasocial interaction because the games did not really present a character storyline as they were more focused on giving the player something to do. Almost none of these games presented the player with the option to choose their own character and not a lot of focus was given on the characters themselves. It is slightly easier to create a sense of identification with games such as Magic Kingdom, I love you Colonel Sanders, Monster Energy, and such because the player was able to follow the characters along their journey in the game. When it comes to liking, which is the personal feeling of developing positive feelings toward something, to some extent all the games presented elements that could provoke these types of feelings.

A lot of the games gave the opportunity of sharing scores to the player which helped with the element of competition. The scores could be shared online through social media. In some instances, it was also possible to view a list of the higher scores made on the game. However, this was not possible in some of the older games because the scores were taken down. This undermined the feeling of competition because it was not possible to compete anymore although the games were still available. It was underwhelming to play a game and notice at the last minute that the points were not being recorded. Many games integrated social media and social integration. In the sense that players were able to either share the game online or share their scores or share both. Many social media platforms were integrated such as Facebook, Instagram and Twitter. Social integration was also applied in some games by integrating the official website of the brand in the game. For example, in Bike Unchained, the player could compete against virtual opponents or invite friends. Every time, the player would choose to compete in a race, the surrounding and environment of that race would change, for example one was located in the desert while another one was located in the

mountains. Similar elements were added to Monster Energy Supercross. In this game, the

player could compete with other players and other virtual opponents; do time challenges and

performance challenges. In general, the environment of these games changes according to

different challenges and tasks that the player had to do in order to progress and this helped in

making the game generally more fun, enjoyable and engaging. This is just an example on

how one game achieved entertainment.

Visual argumentation: This type of persuasive mechanism was not used often in games or at

least in the sample of advergames chosen. It was rather harder to spot compared to other

persuasive mechanisms and it opens the possibility that it was either missed, not identified, or

simply it was not used in this type of game. It was more challenging to spot because it meant

interpreting the game on a higher level than just identifying the game logo, the game storyline

and such.

In some instances, visual modality was implemented in the sense that the brand

personalities have been integrated in the game without being explicit about it thus providing a

visual argumentation. Just as people have personalities, brands have been created to have

their own personality. There are five dimensions to brand personality: excitement, sincerity,

ruggedness, competence and sophistication. The Coca Cola brand is known to be a mix of

sincerity and excitement. Within this brand, there are different products which also have their

own personality. Coke Zero is related to being active, sporty, impulsive and extreme, and this

is often reflected in the commercial that Coca Cola creates to promote this product, an

example of such can be found here (https://www.youtube.com/watch?v=5vwVn4eTLeM).

Indeed, Coke Zero brand personality can be seen as a mix between ruggedness and

excitement. In the game created for this product, Coke Zero Retro Electro Football, the brand

personality was reflected in the sport they chose to have the users play, namely football.

Football is known to be a very tough and rugged sport and that is the reason why it fits with

the idea behind this brand. By combining these two, the designers were able to communicate

the idea and message of the brand. In a sense, it also allowed to create consistency between

the brand and the game. Along these lines, the same principle was used in Monster Energy,

the brand personality is a mix between ruggedness and excitement which was portrayed in the

game through motor cross. This again was used in Bike Unchained, Red Bull brand

personality is similar to the Monster Energy's one by having a mix of competence,

ruggedness and excitement; and this message was conveyed in the game by having the users

participate in motocross racing, where they were able to perform all sorts of different and in

real life dangerous jumps, competitions and more.

This persuasive mechanism was also conveyed through visual written argumentation.

Some games presented positive aspects of the brands in written form. To note, these positive

aspects are not the slogans of the brands, otherwise according to the coding scheme that was

developed, that would have been categorised as game-goal-message-goal-overlap. In the

game Arctic Ascent, there would be planes going through the screen with banners explaining

why the user should favour this airline over the others. Such banners presented sentences

such as "*Skytrax airline of the year 2013*" or "*Awarded-winning service at 35000 feet*"

(Image 12). This prompted the user to visualize the positive aspects of the company in

comparison to their competitions. This is also the only instance where the positive aspects of

a brand have been mentioned and promoted. All the other games have simply conveyed the

message of the brand, the idea behind and what a person would do if they did at the end

purchase a product of said brand, but no other game really mentioned why the person playing

the game should actually purchase some products of the brand being promoted. This is, as far

as observed, the only game that actively said why a person should go for this airline next time

they decide to go on vacation and purchase a plane ticket. This game tells the players that

Qatar Airways is a good airline, it mentioned that it has been awarded airline of the year in 2013, that provides its customers with good food, and more.
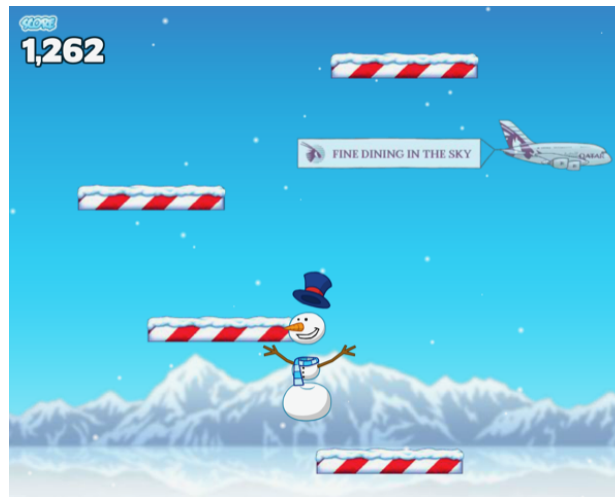

Image 12. Banner with statement: "Fine Dining in the sky", one of the multiple banners in the game that mentioned the positive aspects of Qatar Airways. Arctic Ascent. From *Arctic Ascent, 2020.*

In Millie's Christmas Delivery, the sentence "*Makes delivery easy*" appears multiple times throughout the game. This was also translated in the game. The idea of the game was to have the players deliver parcels door to door. It was a very fast paced game and every time the player would deliver one parcel; they would get extra seconds, and this would go on until the time was up. Per se, the game was also quite easy to play and to understand. This allowed for the message "*Makes delivery easy*" to translate within the game and deliver the message to the player (Image 13).

Image 13. The Millie's Delivery mini game where the player had to deliver the highest number of packages possible within the time allotted. Millie's Christmas Delivery. From *Millie's Christmas Delivery, 2020.*

Another example of visual metaphor was identified in the Angriest Whopper game. A screenshot of the game is provided above (Image 3). In the background of the game, a flame visual was added which aids in understanding how spicy the burger is meant to be. Moreover, the name of the game, Angriest Whopper, as well is related to the spiciness of the promoted Burger King burger. Being angry can be, in some instances, correlated with being spicy and erratic. This in itself is not a visual metaphor but a method to convey the concept of the burger. Lastly, the player has to collect jalapeños. Once again this is a metaphor to convey the message of the burger being spicy.

Advergames throughout the years: Advergames have developed throughout the years. When these games started to appear in the market around the year 1983 with the game Tapper for the beer brand Budweiser, these games were usually shorter, around 60 seconds. They were simpler in graphics and in the scope of what the player could do when playing them. They were only available on free online websites. The further the development of new technology and the accessibility of the internet went along, the more developed and complex

these games became. As seen in the sample used in this research, the first advergame chosen

was from 1992 for Quavers while the most recent one was from 2019 for Monsters Energy.

The Quavers game was a puzzle-domino style kind of game in which the goal of the games

was to open doors, while the Monsters Energy game was a game about motor cross in which

the goal was to win all the different challenges and competition with different users. In terms

of persuasion mechanisms, the main mechanisms remained the same. Brand placement, brand

integration, entertainment, social integration and all of the others are present in the older

games but are also there in the newer games. These mechanisms, however, have changed in

the sense that they have become complex with time. To note is that brand placement is the

only one that stays consistent throughout the years, but that is because putting it in simple

words, it is a mechanism where the brand logo and product are placed on a screen. However,

the way the messages were conveyed, and the level of immersion offered to the players have

changed over the years.

As seen before, older games were pretty straight forward with the message of the

game and the brand; for example, Roll em up / Pool 'm up / Dart 'm up was created to

promote Dommelsch, a brewery. The user was involved in 60-seconds mini games which

represented the games that people would normally find and get involved with at a bar

drinking beers. In general, the idea of entertainment has developed also throughout the years

and as a consequence, so did the elements that are added to the advergames to elicit the

feelings of fun and engagement. For example, in Spider-Man Far From Home, through the

use of VR technology and the design choice of replicating the movie it is based on, the player

was able to feel like the character and experience the world through its eyes. Both these

elements are important in prompting feelings of character identification, wishful

identification and similarity. All of the components that help achieve a better sense and

feeling of entertainment while playing this game. This is also an example about how the

technology to play advergame is nowadays readily available to everyone making it easier for

people to play these games and be more exposed to the persuasion attempt. Nowadays,

advergames can be found online, on mobile phones, PS, XBOX, and dedicated video game

consoles.

Discussion and Conclusion

The scope of this study was to understand what type of persuasive mechanisms were used in advergame to promote a brand and to persuade the player into creating a favourable impression towards that brand. Taking into consideration the article this study is based, the literature integrated in this research and the main findings of this research. It can be stated that in this research it was found that (1) the persuasive mechanisms used in advergames are but not limited to brand placement, brand integration, consistency, entertainment, social media integration, and visual metaphors; (2) the application of these mechanisms varies according to the advergame played, but there is a similarity in all the way in which they are applied; (3) visual metaphor/argumentation can be found in advergames in the way the brand personality is portrayed in the games and in some instances, in the statement about the favourable aspects of the brand are written within the game; (4) although games have developed and become more complex, the same persuasive mechanisms can be found both in the older and in the newer advergames.

These results somewhat differ from previous research. As seen in the content analysis conducted by Roettl, Waiguny, and Terlutter in 2016, the persuasive mechanisms were the following: brand placement, brand integration, the autonomy of the game, game-goal-message-goal overlap, consistency, entertainment, social integration and word-of-mouth, and commitment. Although this research presents similar results, the mechanisms of autonomy of the game, game-goal-message-goal overlap, and commitment were taken out or integrated with some of the other persuasive mechanisms listed before, the reason behind these choices is explained below.

As for the game-goal-message-goal mechanism, the idea behind this mechanism was that there needs to be a relation between the product category of the brand being promoted

and the content/goal of the game (Gross, 2010). During the pre-test, the persuasive mechanism of consistency which was separated from the original code of "Commitment and Consistency" was defined in terms of the game being consistent with the theme of the brand and convey the idea and message of the brand through its gameplay. Throughout the data collection, it became more and more clear that these two mechanisms entailed the same idea and were later merged together. The reason why these two codes were combined was because all the games that presented game-goal-message-goal also presented consistency and also because, it was noted at the end that both codes expressed the same concept and game-goal-message-goal overlap was found to be one of the elements that contributes to the idea of consistency. As seen before, this concept is achievable on four levels: functional, lifestyle, image, and advertising. In order to achieve game-goal-message-goal overlap, there needs to be consistency and congruence between the brand, the style, the image of the brand and the product category, which is also what the games need to have in order to be consistent in the sense of how it has been defined in this study (Gross, 2010; Roettl, Waiguny, & Terlutter, 2016).

Furthermore, commitment is often prompted within games by offering some challenges within the narrative of the game (Waiguny, Nelson, & Terlutter, 2012) and it was shown before that fun, curiosity, and competition are components of entertainment (Lee & Youn, 2008). According to Oinas-Kukkonen and Harjumaa (2009), commitment can be achieved in advergames by offering some challenges within the narrative of the game and by augmenting the personalization of the game, by allowing the user to sign in the game with their own name, chose their own characters, change the characters' outfit and so on. As seen before, as stated by Waiguny, Nelson, and Terlutter (2012), entertainment should be prompted by providing the users with an optimal level of challenges. Furthermore, part of entertainment is allowing the player to reach a level of character involvement and

identification, which is in part achievable by giving the player the opportunity to personalize their own characters (Moyer-Gusé, 2008). Because of these similarities between the two persuasive mechanisms and the literature on the elements which create feelings of entertainment in a person, commitment was considered just a facet of entertainment, and the two mechanisms were integrated.

Although the persuasive mechanism of autonomy was presented in the majority of the games in the sense that all of the games, with the exclusion of 4, presented a tutorial and some sort of explanation on how to play the game. However, as mentioned in the results section, all the games were really self-explanatory and did not require a tutorial as most of the time, they were very easy to pick up and play without introduction. When looking at how autonomy was defined by Smith and Just (2009), autonomy varies on a spectrum that goes from the user having full autonomy and having none. It would be possible to argue that the player had close to no autonomy while playing these games because they were provided instructions on how to play the game and were not allowed to do anything differently than what the player was supposed to do. The only autonomy that the player had was when they had the opportunity to choose their own character, their names and their physical characteristics or in some cases the storyline, which as we have seen was also helpful when increasing entertainment. Other than having a tutorial readily available for the player, this other element of autonomy was not really used in advergames; therefore, the impact of this mechanism on persuasion was not fully comprehended in this study.

The "music and sound" mechanism was first introduced by the researcher after the pre-test because it was deemed to be an important addition to the level of the persuasion a game could obtain. However, after the data collection, these two elements were not considered to be relevant enough for the researcher to be considered a persuasive mechanism, at least in the context of advergames. Most of the games presented the option of muting the

game if the player wanted to do so, and in the cases in which it was not presented, there are many other ways for the player to be able to mute the sounds and music if they wanted to. As mentioned in the results section, in only one instance, the music was not found to be disturbing, and this was in the case of the Millie Christmas Delivery because they played "Dashing Through the Snow" throughout the game which was fitting to the theme and activities of the game. It made the game more enjoyable. Further research should be done on this area to understand if the use of jingles and songs could have an impact on the persuasion of advergames.

The concept of visual argumentation and metaphors was a new idea proposed in this study. This was chosen to understand if this particular mechanism which is usually used in traditional media had been translated into advergames. These types of argumentation are used to convey brands' messages in a more creative and unique way (Siri, Halim, Hassan, Mat, & Ali, 2018). Within the sample, there were a couple of ways in which this mechanism was applied. For instance, the brand personality was reflected in some games. Brand personality is the idea of giving a brand a set of human characteristics which a person can relate to (Aaker, 1997). This concept was applied to multiple games played mentioned in the results section and this is aligned to the idea of "gameplayer" methodology which pushes the player to understand and gain a deeper understanding of the brand message (Germanchis, Pettit, & Cartwright, 2010). Another way in which visual argumentation was implemented in advergames was the use of written statements to explain to the user why the brand was good and why it was better than its competitor. This was only observed in one of the advergames used in this study. All the other games have simply conveyed the message of the brand, the idea behind and what a person would do if they did at the end purchase a product of said brand, but no other game really mentioned why the person playing the game should actually purchase some products of the brand being promoted. This method fits with one of the

processes of convey metaphors that was called "storytelling" by Germanchis, Pettit, and Cartwright (2010), which allows the player to gain more information about the brand and the brand's message. There is still a lot to understand when it comes to visual argumentation within advergames, but this study could be a start in understanding how this traditional mechanism is being applied to newer forms of entertaining media. Further study should be focused on this element.

In terms of the development of advergames and its persuasive mechanisms throughout the years, it was observed that the advergames had changed and evolved along the technological development; while the persuasive mechanisms have stayed constant throughout the years. There was a significant difference between the older games and the new ones being developed, however, this is not surprising considering the rate of technological development experiences in the last years. When taking into consideration the persuasive mechanisms applied in these games, these stayed more or less consistent. The mechanisms of brand placement, brand integration, social integration and consistency were consistently applied in the same way. The mechanism of entertainment developed with the advergames. Entertainment has changed throughout the years and went in accordance to the new technological development, what is available to a person, and what is portrayed in current media (Khalisah & Anjarningsih, 2020). The advergames have evolved and this was visible on multiple occasions. One evident example was the Spider-Man game, in this game, not only the landscape and character representation were better than older games, the feeling of immersion was achievable through the use of VR technology, the storyline following the same story as the movie and the fact that it was an exact replica of what the user would have eventually seen at the cinema. It would be interesting to see if games based on other media channels would achieve higher persuasion than games created to promote a product. In other occasions, when the game was created to promote a brand, the developers had to convey a

message or an idea of the brand inside the game; this time instead, it was possible to simply replicate the movie and allow the player to experience how it feels to be Spider-Man.

Limitations

When looking at the results of this study, it is important to take into consideration that there are some limitations. One of which was caused by availability bias. Because the research was focused on understanding how the persuasive mechanisms developed overtime, it required the use of old advergames. A lot of the websites and platforms in which these were distributed to the public were deleted. Many games which had been developed for iPhone and Android were not compatible anymore with the newer versions and updates of both software. This caused the sample to be smaller and it might be the case that the sample is not a representative list of the advergames that are actually out there. Therefore, this research is based on what was available and what the researcher was able to gather and observe.

Another limitation that needs to be taken into consideration is the subjectivity of the coding scheme. Although the codes were defined and some questions and examples on how each code could look like in the games, a lot of these elements were open to interpretation and subjective evaluations. A few examples are entertainment and consistency. Although, it was possible to identify some of the elements that would normally help with creating feelings of enjoyment and create entertainment in a person. This concept is personal and changes according to people, personalities, moods, and more. Consistency, instead, is subjective in the sense that sometimes, the brand message and the game overlapped in a way that was very clear and was not open to interpretation but sometimes, this consistency was transmitted in vague messages which could have been missed at times.

Directions for further research

As mentioned before, the goal of this study was to understand what type of persuasive mechanisms were used in advergame to promote a brand and to persuade the player into creating a favourable impression towards that brand.

This study presented a good insight in a field which is becoming more and more exploited in the gaming industry, which might also expand to different platforms. A start for further research would be to look into the persuasive mechanisms and how these are applied in advergames by conducting a bigger scale study on the topic. Future research might want to focus on understanding why these mechanisms are repeatedly used in games and how these are persuading the players; how these mechanisms are and can be applied in other forms of media or how the mechanisms are changing with the development of new technologies.

A lot of the persuasive mechanisms are focused on presenting the brand and create associations between the positive feeling a person gets from playing an enjoyable game and the brand. These advergames usually focused on representing the brand by duplicating the acts that people would do in real-life when interacting with the products or transmitting the brand message through the game. A lot of these games, however, never actively mention the positive aspects of the brand and why the brand is better than others in the field in which it is competing. As observed, only one advergames presented written statements as to why that company was better than their competitors and in which aspects that was the case. Therefore, it is possible to opt to have the positive aspects of a brand highlighted in the game. It would be interesting to further understand what would happen to persuasion and how that would impact the user if the game actively promotes the positive aspects of the brand (Jacobs, Werning, Jansz, & Kneer, 2020).

Another interesting direction, which is not completely tied to the study, but it focuses on the topic of advergames, would be to understand the reasons why people start playing advergames and see how that affects the persuasion of the games. As seen in the literature research, the main reasons behind why people engage with advergames are fun, curiosity, and competition, but also boredom and quick distraction (Lee & Youn, 2008) which causes the player to be in an environment in which they voluntarily exposed themselves to the persuasion attempt. This has been considered the ideal case for the persuasion attempt to be successful, but it would be interesting to see how these persuasive mechanisms would work when the circumstances are different. Along the same line, it would be interesting to see which external factors affect the perception of these persuasive mechanisms; such factors could be mood, personality, and surrounding.

As it has been mentioned in the theoretical framework, the aim of advergames is to transmit positive stimuli to the player that are then transferred to the brand itself. It would be interesting to conduct a qualitative research through conducting interviews and/or focus groups to understand how the players feel during and after playing advergames. Along the same line, it would be interesting to see the thought process of people when they are playing these games to understand if they are aware of the persuasion attempt, which elements they notice and how do they feel knowing that these games are made specifically to influence people into having more positive feelings toward a specific brand. It would also be interesting to see if they are aware of all the persuasive attempts that are integrated in the games or if there are specific ones that are systematically overlooked by the players.

The advergame Spider-Man Far From Move was discussed above and a further direction for research was mentioned, namely it would be interesting to study if games based on other media channels could achieve a higher persuasion than games created to promote a product. Inadvertently, individuals who decide to play this game could be unaware that the

game is attempting to persuade them into having positive affiliation with the brand, which is usually the case for advergames. In this case, however, the player is presented with an exact replica of the movie with the main characters and their voices being used as the main storytellers, and the scenarios that have to be played. These elements could allow the player to achieve a higher immersion and integration with the game, which could then lead to a higher level of persuasion.

Another direction for research would be to focus on entertainment in games. It can be argued that entertainment and what is considered entertaining has changed with the technological development and what is readily available to people. It would be interesting to see how the concept of entertainment has changed over the years and how technology has adapted to this shift, and vice versa.

In addition to all the aspects presented above, there are two other areas which could be interesting to explore: (1) when advergames are based on other media channels, such as movies, tv shows, other games, how does that affect persuasion; and (2) if the use of jingles and popular songs could have an impact on the persuasion of advergames.

Lastly, another aspect to investigate would be the effectiveness of these advergames. It would be interesting to understand if advergames were successful in their persuasive attempts by involving the companies that have used advergames as a tool. From a financial point of view, the sales of the company could be taken into consideration to understand if they had changed since the release of the advergame. It would also be possible to collecting customers' feedback to understand what they have done after they played the game. The possible reactions to take into consideration would be if the players have researched the product and/or the company; if they have actually gone to a shop and brought the product; they recognised the brand and/or product when finding at the store; among many other

possible reactions. It would also be interesting to study if the long-term effectiveness of advergames by conducting a study over the course of months to investigate if the effects are persistent over time or if there is a cut-off point in which the positive affiliation created start to fade.

Conclusion

To conclude, the current study builds on from the content analysis carried out in 2016 by Roettl, Waiguny, and Terlutter and it was focused on advergames and in the way these games attempt to persuade the players towards the brand they are promoting. The main findings of this research are: (1) the persuasive mechanisms used in advergames are but not limited to brand placement, brand integration, consistency, entertainment, social media integration, and visual metaphors; (2) the application of these mechanisms varies according to the advergame played, but there is a similarity in all the way in which they are applied; (3) visual metaphor/argumentation can be found in advergames in the way the brand personality is portrayed in the games and in some instances, in the statement about the favourable aspects of the brand are written within the game; (4) although games have developed and become more complex, the same persuasive mechanisms can be found both in the older and in the newer advergames.

There are limitations that need to be taken into consideration when interpreting the results of this research which have been discussed above. This study helps understanding which advergames with the goal of persuading their players. It also helps to understand how the mechanisms are designed into the games and the different way in which they are applied within the gameplay of these games. Lastly, this study has tackled and attempted to explain how visual metaphors could be applied to advergames and how these persuasive mechanisms have developed throughout the years.

In terms of contribution to the research started in 2016, this thesis presents the following additions: an adjourned evaluation of the advergames available on the free market, with a focus on those issued after 2016 due to the technological development achieved in the field of videogames in the last 4 years; an explanation of some of the persuasive mechanisms used in this virtual environment, with the addition of focusing on visual argumentation as a form of persuasion in advergames. Lastly, this thesis presents a structured method which allows for the advergames to be analysed in a consistent and coherent way and to produce homogenous results that can be verified and reproduced.

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Appendix

Appendix A

Sample of advergames

N (40)	Year	Brand/Product	Name	Links
1	1992	Quavers	Pushover	PC game
2	1998	Dommelsch	Roll em up / Pool 'm up / Dart 'm up	PC games
3	2001	Kinder	Kinder Joy	https://d2bb847mrtvi3d.cloudfront.net/bmgstudio/publish/337/1358/29/index.html?refer=direct
4	2002	America's Army	Army Operations	PC game
5	2007	Coke	Coke Zero Retro Electro Football	https://www.y8.com/games/coke_zero_retro_electro_football
6	2008	Cartoon Network	Flapjack Adventure bound	https://www.y8.com/games/flapjack_-_adventure_bound
7	2008	Dairy queen	DQ tycoon	PC game
8	2009	Nickelodeon	Rugrats Jungle Stumble	https://www.y8.com/games/rugrats_jungle_stumble
9	2009	Pepsi	Max Breakout	https://www.y8.com/games/pepsi_max_breakout
10	2009	Ubisoft	Teenage Mutant Ninja Turtles - Double damage	https://6games.eu/games/1278-teenage-mutant-ninja-turtles-double-damage.html
11	2009	Volvo	Volvo - The Game	PC game
12	2010	Cheetos	Battle of the Cheetos	(game not available anymore) Info -

				https://www.mindfunk.tv/portfolio/battle-cheetos/
13	2010	Hermes	Millie's Christmas Delivery Challenge	https://www.y8.com/games/millies_christmas_delivery
14	2010	Kmart	Protege Stick Basketball	https://tubegame.com/protege_stick_basketball.html
15	2010	Marvel	Stark Tower Defence	https://www.y8.com/games/stark_tower_defense
16	2011	Energizer	No extra charge	https://www.y8.com/games/no_extra_charge
17	2011	Nickelodeon	Sponge Bob Square Pants: Bikini Bottom Carnival Part 2	https://www.80r.com/games/sponge-bob-square-pants-bikini-bottom-carnival-part-2
18	2011	Qatar Airways	Arctic Ascent	https://www.y8.com/games/arctic_ascent
19	2012	Cartoon Network	Hole in the Wall - Twisted Figures	https://www.y8.com/games/hole_in_the_wall_-_twisted_figures
20	2012	Froot Loop	Black Beak's Treasure Cove	https://www.y8.com/games/black_beaks_treasure_cove
21	2012	Gillette	Soccer mobile	
22	2012	Tic-tac	Melon Mango Mayhem	https://www.freeonlinegames.com/game/melon-mango-mayhem
23	2013	BBC	Wallace's workshop	https://www.y8.com/games/wallaces_workshop
24	2014	Hope lab	Re-Mission 2:	App

			Nanobot's Revenge	
25	2015	Oracle	Oracle Cloud Stacker	http://demo.gamewheel.com/stacker/oracle/
26	2015	Paramount	Scouts Guide to the Zombie Apocalypse	http://demo.gamewheel.com/shooter/paramount/
27	2016	Albert Heijn	AH Dino's	App
28	2016	Burger King	Angriest Whopper	http://demo.gamewheel.com/cases/BK_AW/
29	2016	CBC	CBC Hockey Hero	https://www.cbc.ca/kids/games/all/hockey-hero
30	2016	Century Fox	Animation Throwdown: The quest for Cards	App
31	2016	Disney	Magic Kingdoms	App
32	2017	American Honey	Escape the Office	App
33	2017	Oreo	Oreo: Twist, Lick, Dunk	App
34	2017	RBS 6 Nations	Touchdown Pro	https://www.flashgames.it/touchdown.pro.html
35	2018	Red Bull	Bike Unchained 2	App
36	2018	Total	Total Excellium	https://branded.mini-games.io/?php=landing@1D8Iop3XxQ&campaign_no=3408&refer=direct
37	2018	Walmart	Spark City	App
38	2019	KFC	I love you, Colonel Sanders	PC game
39	2019	Hot Wheels	Hot Wheels Race Car Rush	https://play.hotwheels.com/en-us/games/race-car-rush.html

| 40 | 2019 | Monster Energy | Monster Energy Supercross 2 | App |