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# Advertising with Digital Technologies in Video Games Arena

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# 1 Abstract

This thesis examines the effect of marketing campaigns within video games on players of all ages and their post-purchase decisions. The goal of my thesis was to indicate that with the development of graphics and the overall video game industry, it is turning relatively easy to shift the same types of advertisements which everyone has come across while surfing the internet or watching broadcasted programs on TV, to the graphic world of video games.

The data for this study was obtained from previously published studies and data records, which were qualitatively analyzed to investigate the connection between product placement in video games and the purchase intentions of gamers after confronting the advertisement (in short/long terms). The analyzed data displayed that many companies are already practicing inserting their brand products into 2D-3D interactive dimensions. The companies such as “Energizer,” “Monster Energy,” “Mercedes”, etc., have already succeeded in the implementation of such techniques.

The findings of this thesis will act as a guide map to assist future managers in developing proper advertisements to insert into video games without causing distortions to the provided in-game atmosphere and inner mechanics of the interactive entertainment.

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## 2 Introduction

Video games have always been associated with enjoyment, fun and overall connected to entertainment sphere. While games have been constructed for entertainment purposes, they are not limited solely onto this role. They possess underlying characteristics which enable them to exceed their primary purpose. A variety of genres and inventive development of games allows players to facilitate skill development across various domains, such as spatial awareness, decision making, hand-eye coordination, multitasking and many more. The educational and business potential of games is examined, emphasizing their ability to engage players through interactive and immersive experience, relying upon that developers could integrate mechanics to promote critical thinking, problem solving and collaboration between players.

Interactivity and immersiveness of video games provide unique opportunities for businesses to engage with their target audience and promote their products or services. Businesses can use opportunities provided by video games to deliver their marketing messages, enhance customer engagement and encourage viral sharing and participation.

Advergaming, gamified marketing campaigns and placements within games are not the only opportunities' provided by gaming industry, in recent years' electronic sports (e-sports) and competitive video gaming at a professional level, has grown into a global industry with a significant fan base. E-sports events provide opportunities for businesses to invest into this market by sponsoring e-sports teams, hosting tournaments or advertising during e-sports events. Engaging with the e-sports community provides such benefits as brand exposure, partnerships and targeted marketing to a highly engaged in technology sector audience.

According to statistics, by 2023 the number of video games players worldwide is estimated to be around 3.09 billion. Compared to 2016 year when it was 2.17 billion the figure has risen by over 1 billion in just seven years (that is a 32% increase) (Statista, 2023).

The global number of video games players was forecast to continuously increase between 2023 and 2027 due to increased popularity of mobile gaming, development of new gaming technologies and the rise of e-sports (Statista, 2023).

## 3 Theoretical framework

### 3.1 Origin of video games

In the 21<sup>st</sup> century, video games reached their platinum era due to the technological evolution of graphics, AI (Artificial Intelligence) of in-game foes, and storytelling methods; the usual methods of 80-90<sup>th</sup> like pixel graphic designs (which has been implemented due to low power graphic cards of computers and consoles) shifted to more detailed model crafting. The design, budget, realization, and adoption of the games have changed over time. It was perceived as a child's play before it became a new popular hobby for a large percentage of the world. Everything that continues to prosper has been once dreamed of and created by one inventor, Ralph Baer, and he is considered the Father of Video Games.

The first video game was created in the late 1940s, but it wasn't until the 1970s that video games became popular and widely available. Then, in 1972, the game Pong was released, a simple game of table tennis on arcade machines that turned out to be a phenomenon, which led to a widespread recognition of Atari as a leading video game company. Three years later in 1975, Atari released a home version of Pong for Atari's home game consoles which became extremely popular and helped drive the sales of consoles (National Museum of American History, 2012).

Pong was designed by Allan Alcorn, an engineer at Atari. Initially Pong projected to be a trial game to test Atari's new arcade game machine, however due to high popularity gained during prototype phase, Atari decided to manufacture it as a standalone arcade game. The original Pong arcade machine featured a black-and-white display and relied onto two-dimensional graphics to imitate a game of table tennis. The gameplay involved two paddles on opposite sides of the screen and the drifting ball; to win, players must have used the paddles to hit a ball back and forth, the goal was to score points by making the ball pass the opponent's paddle (National Museum of American History, 2012).

Upon its release, Pong quickly became a sensation. It became the first successful video game and helped establish video games as a feasible entertainment.

Over the next few years, many other video games were created, including Space Invaders, Pac-Man, and Donkey Kong. These early games were often played in arcades or home consoles like the Atari 2600.

In the 1980s video games continued to evolve and became more complex, with the introduction of games like Super Mario Bros and The Legend of Zelda. These games were played on more powerful home consoles like the Nintendo Entertainment System and the Sega Genesis.

In 1980 due to significant boom in video games industry several companies emerged as major players in the market. The majority of the companies were based in the United States and Japan, which were indicated as focal points for the video game industry. Such companies as Atari, Activision, Coleco and Commodore were created in United States and established their headquarters around the country. The companies such as Nintendo, Sega and Taito opened their headquarters around Japan and aimed at operating mainly around this area.

During the 1980s the video game industry experienced significant growth and development in both United States and Japan, substantial contributions from the companies residing within played a great role in boosting the expansion process and opened the way for the future innovations.

In the 1990s, video games began using 3D graphics and implementing multiplayer features, and home consoles like the PlayStation and the Nintendo 64 became extremely popular. With games like Doom and Quake, PC gaming also became more popular during this period of time.

At the moment, video games are considered a massive industry that generates billions of dollars in revenue annually. Many different types of games are available, from first-person shooters to role-playing games to sports simulations. And with the introduction of online gaming and virtual reality, the future of video games looks exciting!

## **3.2 The chronology of inventions in the Video Game industry:**

### **3.2.1 1970s:**

The 1970s were a period of rapid innovation and experimentation in the video game industry. The arcade game's invention and Pong's launch helped establish video games as a cost-effective commercial product. At the same time, the rise of home consoles and home computers placed the foundation for the industry as we know it today. This decade also saw the emergence of new genres like text-based adventure games and the rise of major market players like Atari that would shape the industry for years to come.

1. The invention of the arcade game: In 1971, the first arcade game, Computer Space, was released by Nolan Bushnell and Ted Dabney. The game was a commercial failure, but it laid the foundation for the arcade industry that would explode in popularity in the coming years.
2. The launch of Pong: In 1972, Atari released Pong, the first commercially successful video game. Pong was a simple game that simulated table tennis, but it became a cultural phenomenon and give rise to a wave of imitators.
3. The birth of home consoles: In 1972 Magnavox released the Odyssey, the first home video game console. The Odyssey was not a commercial success, but it laid the field for the home console industry that would become a significant part of the video game industry in the coming years.
4. The rise of Atari: In 1977, Atari released the Atari 2600, one of the most popular home consoles of all time. The 2600 was a massive success, and it helped establish Atari as one of the dominant players in the video game industry.
5. The emergence of text-based adventure games: In the late 1970s, games like Colossal Cave Adventure and Zork became popular. These games were played on computers and relied on players typing in commands to progress through the game.
6. The birth of the home computer: In the late 1970s, home computers like the Apple II and the Commodore PET were introduced. These computers were marketed as general-purpose machines, but they quickly became popular among gamers who used them to play early text-based games and simple graphics-based games.

### **3.2.2 1980s:**

The 1980s were an innovative decade for the video game industry. After the success of arcade games in the 1970s, the 1980s saw the rise of home video game consoles and the beginning of the console wars between companies like Atari, Nintendo, and Sega.

1. The rise of arcade games: Arcade games were incredibly popular during the 1980s, with games like Pac-Man, Donkey Kong, and Space Invaders becoming household names. These games often featured simple gameplay mechanics but were incredibly addictive, leading to long lines at arcades and a booming industry. (Addictive due to implemented leaderboard mechanic, which allowed players to insert their names to the board after reaching high scores; mentioned mechanic also increased the game's competitiveness).



2. The video game crash of 1983: The video game industry experienced a significant impact in 1983 due in part to a glut of low-quality games flooding the market. This led to a major downturn in sales and the bankruptcy of several major companies, including Atari. In addition, most games imitated famous original games and caused distrust among the players.

3. The emergence of home consoles: In the wake of the video game crash, home consoles emerged as a more viable platform for gaming. The Atari 2600 had already been released in 1977, but the early 1980s saw the release of new consoles like the ColecoVision, the Intellivision, and the Atari 5200. These consoles featured improved graphics and gameplay over earlier systems.

4. The rise of Nintendo: Nintendo released the Nintendo Entertainment System (NES) in 1985, becoming one of the most popular and successful video game consoles ever. The NES featured a unique controller design, improved graphics and sound capabilities, and a lineup of classic games like Super Mario Bros, The Legend of Zelda, and Metroid.

5. The introduction of handheld gaming: Nintendo also introduced the Game & Watch handheld gaming system in 1980, which featured simple LCD games like Ball and Parachute. Later in the decade, Nintendo released the Game Boy, which would become one of the most popular handheld gaming systems ever created.

6. The birth of the fighting game genre: Fighting games like Street Fighter and Mortal Kombat were first introduced in the 1980s. They quickly became popular due to their competitive gameplay and impressive graphics.

Overall, the 1980s were a decade of rapid change and innovation in the video game industry. The popularity of arcade games gave way to the rise of home consoles, which would become a significant force in the industry. In addition, with the introduction of new technologies like improved graphics and handheld gaming, the 1980s set the stage for the continued growth and evolution of video games in the decades to come.

### **3.2.3 1990s:**

The 1990s were a decade of significant transformation and growth in the video game industry. The decade saw the rise of new genres, 3D gaming, and new technologies like CD-ROMs and the rise of online gaming.

1. The rise of the console wars: The 1990s saw fierce competition between video game manufacturers, with Sega and Nintendo battling for dominance in the home console market.

Sega released the Genesis in 1989, followed by the Saturn in 1995, while Nintendo released the Super Nintendo Entertainment System (SNES) in 1991, followed by the Nintendo 64 in 1996.

2. The birth of 3D gaming: The introduction of 3D graphics technology allowed game developers to create more immersive and realistic worlds. Games like Super Mario 64 and The Legend of Zelda: Ocarina of Time showcased the potential of 3D gaming, and the technology continued to evolve throughout the decade.

3. The popularity of fighting games: Fighting games continued to be popular in the 1990s, with games like Street Fighter II and Mortal Kombat II setting the standard for the genre. The success of these games led to the creation of new franchises like Tekken and Soulcalibur.

4. The emergence of first-person shooters: Games like Doom and Quake popularized the first-person shooter (FPS) genre, which would become one of the most popular genres in gaming. These games featured fast-paced, action-packed gameplay and multiplayer modes that allowed players to compete against each other online.

5. The introduction of CD-ROMs: CD-ROMs in gaming allowed for larger game worlds, higher-quality sound and graphics, and the ability to include full-motion video sequences. Games like Myst and The 7th Guest helped popularize CD-ROM use in gaming.

6. The rise of online gaming: The emergence of the internet and technological improvements allowed for the promotion of online gaming. Games like Ultima Online and EverQuest let players connect in virtual worlds and engage in quests and battles.

### **3.2.4 2000s:**

The 2000s were a period of rapid growth and innovation in the video game industry. Online gaming, mobile gaming, and indie games became significant industry parts. At the same time, new consoles like the PlayStation 2, Xbox 360, and Wii pushed the boundaries of what was possible in gaming. The industry also became more global and accessible with the rise of casual gaming and the growth of the indie scene.

1. The rise of online gaming: With the widespread adoption of broadband internet, online gaming became increasingly popular during the 2000s. Games like World of Warcraft and Everquest popularized the massively multiplayer online role-playing game (MMORPG) genre, while online multiplayer modes became a standard feature in many games.

2. The launch of the PlayStation 2: Sony released the PlayStation 2 in 2000, which became the best-selling video game console of all time. The PS2 was a major technological leap forward from its predecessor, and it helped establish Sony as a dominant player in the console market.

3. The emergence of mobile gaming: While mobile phones have featured games since the 1990s, the advent of smartphones in the 2000s led to the rise of mobile gaming as a significant industry. Games like Angry Birds and Fruit Ninja became massive hits, and mobile gaming became a vital revenue stream for many game developers.

4. The launch of Xbox Live: Microsoft launched Xbox Live in 2002, introducing online multiplayer and digital distribution to the console market. Xbox Live would become a standard feature in all future Xbox consoles.

5. The growth of indie games: With the rise of digital distribution platforms like Steam, indie game development became more accessible during the 2000s. Games like Braid and Minecraft became massive hits despite being made by small independent teams.

6. The launch of the Wii: In 2006, Nintendo released the Wii, a console that introduced motion controls and aimed to appeal to a broader audience than traditional gamers. The Wii was a commercial success, and it helped Nintendo regain its position as a significant player in the console market.

7. The emergence of casual gaming: With the rise of mobile and social gaming, casual games became increasingly popular during the 2000s. Games like Farmville and Candy Crush became massive hits and introduced many new players to the gaming world.

### **3.2.5 2010s:**

The 2010s were a period of continued growth and innovation in the video game industry. Esports, mobile gaming, and virtual reality became increasingly important, while new consoles and live streaming helped drive the industry forward. Social media also became a vital tool for game developers and influencers, while indie games continued to thrive thanks to new distribution platforms and crowdfunding.

1. The rise of esports: Competitive gaming (or esports) became increasingly popular during the 2010s. Games like League of Legends and Dota 2 attracted massive audiences and prize pools, while tournaments like the League of Legends World Championship and The International became significant events.

2. The launch of new consoles: The 2010s saw the launch of several new consoles, including the PlayStation 4, Xbox One, and Nintendo Switch. These consoles offered improved graphics, processing power, and online capabilities and helped grow the industry.

3. The dominance of mobile gaming: Mobile gaming continued to grow in popularity during the 2010s, with games like Candy Crush, Clash of Clans, and Pokemon Go attracting massive audiences. Mobile gaming also became a primary revenue stream for game developers, with in-app purchases and advertising generating significant profits.

4. The growth of virtual reality: With the launch of devices like the Oculus Rift and HTC Vive, virtual reality (VR) became a viable platform for gaming during the 2010s. While VR gaming remained a niche market, it attracted a passionate following and helped push the boundaries of what was possible in gaming.

5. The emergence of live streaming: With the launch of platforms like Twitch, live streaming became increasingly popular during the 2010s. Players could broadcast their gameplay to a global audience, while viewers could watch and interact with their favorite streamers in real time.

6. The impact of social media: Social media platforms like Twitter and Facebook became increasingly important for the video game industry during the 2010s. Game developers and publishers could use social media to promote their games, while influencers and streamers could build massive followings and help drive sales.

7. The continued growth of indie games: Indie game development continued to flourish during the 2010s, with games like Minecraft, Stardew Valley, and Undertale becoming massive hits. Platforms like Steam and the rise of crowdfunding also made it easier for indie developers to bring their games to market.

### **3.2.6 Late 2019-2023; the impact of COVID-19 on the Video Game**

#### **Industry:**

Overall, the COVID-19 pandemic significantly impacted the video game industry. While it led to delays and disruptions in game development and release, it also drove increased demand for gaming and accelerated the shift towards remote work and virtual events. In addition, the pandemic also highlighted the importance of online gaming communities in keeping people connected during difficult times. Increased demand for gaming: With many people stuck at home due to lockdowns and social distancing measures, demand for video games

increased significantly. This led to a surge in sales for both console and PC games and mobile games.

1. Delayed game releases: The pandemic also led to delays in developing and releasing many games. With developers working from home and facing disruptions in their supply chains, many games saw their release dates pushed back.

2. Shift towards remote work: The pandemic also led to a shift towards remote work in the video game industry. Developers had to adapt to new tools and workflows to collaborate effectively while working from home.

3. Changes in gaming events: The pandemic also led to the cancellation or postponement of many gaming events, including E3 (trade event for the video game industry in the United States) and Gamescom (Annual trade fair for video games held at the Koelnmesse in Cologne). Virtual showcases and live streams replaced many events.

4. Rise of virtual events: While physical events were canceled, the pandemic also led to the rise of virtual events in the video game industry. Companies like Nintendo and Sony hosted virtual events to showcase their latest games and hardware, while the Game Awards shifted to a virtual format.

5. Increased use of in-game events: With physical events canceled, many game developers turned to in-game events to engage with their audiences. Games like Fortnite and Animal Crossing hosted virtual concerts and other events to keep players engaged.

6. Growth of online gaming communities: With people unable to gather in person, online gaming communities saw significant growth during the pandemic. Social games like Among Us and Fall Guys became incredibly popular, while virtual worlds like Roblox and Minecraft saw increased engagement.

### **3.3 Notable people who have contributed significantly to the development of the Video Game industry:**

Ralph H. Baer: Baer was an engineer who worked for Sanders Associates. In the late 1960s, he began working on a prototype for a "TV game" allowing people to play simple games on their televisions. This eventually led to the creation of the Magnavox Odyssey, the first home video game console. Baer continued to work in the video game industry for many years, and

he is widely regarded as one of its pioneers and has been credited as the “Father of Video Games.”

**Nolan Bushnell:** Bushnell founded Atari in 1972 and is credited with creating the arcade game Pong, which was a massive hit and helped popularize video games. He also supervised the development of many other classic arcade games, including Asteroids and Missile Command. Bushnell's contributions to the video game industry earned him a place in the Video Game Hall of Fame.

**Shigeru Miyamoto:** Miyamoto is a Japanese video game designer and producer widely regarded as one of the most influential figures in the industry. He created iconic game franchises, including Super Mario Bros., The Legend of Zelda, and Donkey Kong. Miyamoto's innovative approach to game design, which emphasizes fun and accessibility, has profoundly impacted the medium and helped to revolutionize the industry.

**Hironobu Sakaguchi:** Sakaguchi is a Japanese game designer and producer best known for his work on the Final Fantasy series. He co-founded the game development company Square Enix and supervised the creation of many classic RPGs (Role Playing Games), including Chrono Trigger and Secret of Mana. Sakaguchi's work helped popularize the role-playing genre and set a new standard for storytelling in video games.

**Sid Meier:** Meier is an American game designer and programmer best known for his work on strategy games. He co-founded the game development company Firaxis Games and is the creator of many classic games, including Civilization and Pirates! Meier's approach to game design, which emphasizes player choice and emergent gameplay, has significantly impacted the strategy genre. Due to the impact on the strategy games genre, further games released under his command have been given a pre-fix with his name. (ex: Sid Meier's Civilization)

**John Carmack:** Carmack is an American game programmer best known for his work on 3D graphics technology. He co-founded the game development company id Software and was the lead programmer on many classic first-person shooters, including Doom and Quake. Carmack's innovations in game engine technology have had a profound impact on the industry, and his work helped pave the way for modern 3D graphics.

**Will Wright:** Wright is an American game designer and programmer best known for his work on simulation games. He created many classic games, including SimCity, The Sims, and Spore. Wright's approach to game design, which emphasizes player creativity and open-ended

gameplay, has significantly impacted the simulation genre. In addition, Wright's work on *The Sims* helped demonstrate video games' potential as a form of interactive storytelling.

### **3.4 Analysis of the video game product placement's Impact on Customers purchasing decisions**

When customers play video games, they dedicate full attention and cognition focus.

Through the last few decades, Virtual Reality (VR) started growing in popularity in the industry of video games. It started evolving and connecting many people around the globe to provide an authentic experience to customers. The new technologies provided a new field for marketers. Companies started linking with game manufacturers to implement products comprising all sorts of product placement inside the video game arena (Newell, et al., 2006). Games can include any brand, from old to new, from launching brands to diversifying customer targeting strategy (Chernikova & Branco, 2019).

The key aspect of this critical game format is that the player selects a character to use as their avatar, which connects them with a video game's world. As a result, brand recognition can be played through players' immersion in the game and exposure to the product (Winkler & Buckner, 2006). Companies optimize these complete exposition and high involvement of customers to announce products and services aligned with their marketing goals.

In 2002 Michelle R. Nelson studied how VR encourages gamers to memorize brands and products mentioned during videogame playing. Integration increases brand awareness and recognition because the audience (players) pays attention to the world's details inserted everywhere, from walls on streets to wearable clothes on characters (Chernikova & Branco, 2019). In Nelson's study, he conducted a survey describing players' vision regarding presented in-game advertisements. Survey data was received through a pair of preliminary studies, which consisted of 20 people in the first study and 16 in the second (Nelson, 2002).

The first test consisted of a comfortable imitation of a living room with the *Gran Turismo 2* game presented as a test. All 20 people were allowed to spend 15 minutes playing (average time of racing session) and then complete a questionnaire. This specific game was chosen due to the many famous brand cars presented in it and various product placements, including billboards, sideboards, car tires, and motor brands. A few months later, participants were contacted to pass the survey form to measure long-term brand recall. They

were asked which brands they still could recall from their experience. The presented results show that players were generally not conflicted by the integrated advertisements; in their words, the presented ads were not impairing or interrupting the gaming experience. On the contrary, some players considered that the advertisements scattered around the virtual world even provided a dash of realism to the game (Nelson, 2002).

The 2<sup>nd</sup> test was conducted in an office with a personal computer. The idea of developers was to create an environment that would perfectly resemble a personal player's surroundings. The goal was to gather data from 16 people (13 men/3 women in their 20s) regarding their short-long-term recalling of previously recognized brands inside the video games (Nelson, 2002). The presented game was similar to the one demonstrated in the first research. However, it was another racing game with one specific difference: the indicated game was developed precisely for this research, known as the "demo racing game." Such a move was introduced to allow the developers to access source code, allowing them to insert the local companies and brands. During the 2<sup>nd</sup> study, players were not allowed to choose their car appearance; instead, it was procedurally generic. It allowed players to concentrate solely on racing laps and distributed ads. All presented product placements appeared in the background on banners and billboards on both sides of the road.

After passing through this experience, he surveyed the game players, like the one used in the first study, with the same questions about recalling the brands from the game and their reactions to them. The response of game players lining up with the players from the first preliminary study, overall players sympathized with the practice of presented ads. They did not think it was deceptive or did not think it was interrupting or undermining the general experience; with additional comments, they underlined that the used product placement could enhance the game's realism depending on the game's genre (Nelson, 2002). The ads placed in matching scenes as in real life boost players' experience. Additionally, the party from 2<sup>nd</sup> study proposed a few types of games and genres where advertisements would fit the most (Nelson, 2002).

Quotes from the players are shown below:

<ul style="list-style-type: none"><li>• 'Sports or action games where characters you control are in the real world.'</li></ul>	<ul style="list-style-type: none"><li>• 'I find advertising in sports stadiums unobtrusive and life-like.'</li></ul>
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<ul style="list-style-type: none"> <li>• 'Games where you use the products to accomplish the gamer's goal (e.g., board for snowboarding, car for car racing), not just random signs in action, shoot-em-up (war games like Call of Duty, Battlefield, etc.) games.'</li> </ul>	<ul style="list-style-type: none"> <li>• 'Sports or games where the scenery has advertising in real life!'</li> </ul>
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Several gamers also mentioned the types of games where they felt that the introduction of product placement would not fit:

<ul style="list-style-type: none"> <li>• 'Games where advertisements could exist, such as a race track, but not games where advertisements would be oddly placed, like in forests.'</li> </ul>	<ul style="list-style-type: none"> <li>• 'Sports are, ok-but it would be weird to see a Pepsi in Mario Brothers.'</li> </ul>
<ul style="list-style-type: none"> <li>• 'A big flashing sign in Medieval Times would be a foul!'</li> </ul>	<ul style="list-style-type: none"> <li>• 'I really can't imagine having something unrealistic, like a flying monkey person wearing Nikes or something of that nature.'</li> </ul>

Product placement in video games is one of many ways of implementing advertisements. In some cases, the company could invest in some specific video game development to advertise products; such projects are called Advergames (Chernikova & Branco, 2019). Conceptual artist Jonathon Keats initially defined the term “advergame.” This term describes a downloadable or a Web-based videogame released to the market to advertise specific products.

The Advergames have a variety of types, and it also can include availability on gaming consoles, in which case they could be purchased in physical format (Keats, 2001). Such companies as PepsiCo and Volvo have already released the so-called advergames. PepsiCo released the Pepsi-man, the web run-and-jump video game with obstacles. The player took control over the Pepsi-man character and tried to reach the Pepsi vending machine at the end of the lap while collecting Pepsi cans throughout the run. The Advergame of Volvo,

Volvo" "Drive for Life," appeared as a 3D racing game focusing mainly on Volvo cars. Contrary to Pepsi's game has been released and distributed in physical format and is an exclusive video game for Xbox consoles of Microsoft (Hera, 2019).

However, due to players' focus on gameplay, marketers may need to pay more attention to the placement of the mentioned product placement. To be effective, product placement must be seamlessly integrated into the game's story and become a central part of the virtual world without exposing itself and decreasing the video game's immersion (Wang & Chen, 2019).

Additionally, the consumer's experience is influenced by their prior knowledge of a brand. Players' connection with the brand during the playthrough also can change their attitude toward it (Marti-Parreno, 2017). Product placement in a game can also affect trust and make them more likely to rely on the brand when they first purchase a product they saw in the game (Mau & Silberer, 2008).

### **3.5 Advertisement's persuasion effect on children through video games**

Through the last few decades, interactive marketing techniques have intensively evolved. Majority of new techniques are used on children (Calder, 2009). Children's media environments have become congested with advergames, brand websites, and brand placements in movies and TV shows (Moore, 2004). Advertisement techniques are being integrated into TV shows, movies, etc., with persuasive messages which blur the line between advertisement, entertainment, and information, the continuous effect of which impacts children, which in return could turn them to be more vulnerable to commercial effects (Buijzen, et al., 2010).

In particular, marketing techniques shifted to more interactive and engaging non-traditional practices. It can be inferred that the persuasive mechanisms employed in such scenarios are likely to entail utilizing more complex and delicate techniques that tap into the emotional connections of individuals or leverage the transference of cognitive states (Nairn & Fine, 2008). Although a pair of popular non-traditional decisions nowadays are creating advergames and inserting placements within video games, they constantly have faced criticism and concern from academics and caretakers due to their immersive effect on players.

Using animated imagery and children's immersion in video games make them more persuasive than traditional television advertisements (Pavlou & Stewart, 2000). Since the game itself becomes the primary focus of attention, leaving fewer cognitive resources available to examine the messages critically and allowing brands to be processed as part of the overall gaming experience (Moore & Rideout, 2007). The increased involvement and sensory immersion promoted by video games further strengthen this effect, especially when players directly control branded elements, such as driving branded cars in certain games (Nelson, 2002). This combination of factors leads to more positive attitudes toward the featured brands, making it more challenging to recognize and understand the commercial intent behind these messages for adults and children (Roehm & Haugtvedt, 1999) (Owen, et al., 2013).

The structure of an adverggame consists of 2 phases, posting an objective and rewarding a player if one succeeds in passing through it and injecting an advertising message into the infrastructure of a game (Rifon, et al., 2014). Typically, adverggames employ uncomplicated design and straightforward gameplay, yet they are skillful enough at capturing children's attention for extended periods (Nagy, 2011). Empirical studies have demonstrated that adverggames effectively engage youngsters on widely used gaming platforms. Consequently, adverggames represent a distinctive channel for marketers to focus on the younger generation (Vanwesenbeeck, et al., 2017). Due to their active involvement in a game environment, children are motivated to reach the end of the game and earn the maximum of in-game points to win; the game's influence in such advertisement strategy positively enhances the kids' experience. The same effect applies to mature customers. With a combination of game and advertisement, an adult player could shift their opinion about mentioned in-game brands if the game is enjoyable enough (Eva, et al., 2012). The Spillover effect is the theory of transferring the positive opinion from one embodiment to another. In more detail, spillover refers to the idea that the positive impact of an enjoyable context, such as playing a game, also transfers to the commercial messages within it. This means the advertisement benefits from the good sensations tied to the context (Lee, 2021). According to the theory of excitation transfer, the feelings and opinions of a person about one thing can be relocated to another (Mitchell & Nelson, 2018). In the context of adverggames, your good feelings while playing the game can be connected to the advertised brands. (Eva, et al., 2012).

Although it is believed that adverggames easily influence children, there was limited empirical evidence to support this. Therefore, an experiment involving children between 7 to 12 years was established to gain data regarding the influence on children. The parameters

which were measured were the factors that are typically associated with advergames: game involvement, brand prominence (visible markers of a brand that aid in brand recognition (Han, et al., 2010), and persuasion knowledge (Eva, et al., 2012).

The Advergame presented to kids was a snack-catching basket simulation; in the game, the player was instructed to catch falling snacks with Lays and Pepsi logos on them by tilting the basket to the sides as a main mechanic. Presented brand prominence within the game positively impacted children by remembering the suggested brands after the gameplay section while they were asked to pass the survey with researchers (Eva, et al., 2012). It turns out that how placed a brand is in the game, the better it will be recalled after (Lee & Faber, 2007). Due to age, children have yet to discover the skills of distinguishing the presented advertisements inside entertainment, contrary to adults, who are usually irritated by intrusive commercial ads appearing in shows or other services. They quickly can tell the difference between the show, which has been affected by product placement, and the one which was not (Matthes, et al., 2007).

As a child becomes more immersed in a game, their mental resources become limited, making it harder for them to take in and process information that is not directly related to the game, such as a moderately placed brand. On the other hand, if the brand is set more in the center of attention or as an active part of the game, the child's mental capacity is more likely to be directed towards the brand (Moore & Rideout, 2007). This suggests that a child's high level of game involvement can negatively impact their ability to respond to subtly placed brands but can positively impact their ability to react to prominently displayed brands. As a child becomes deeply engaged in a game, a brand's impact on their emotional response may vary depending on where the brand is placed. If the brand is positioned delicately, it is less likely to disrupt the gaming experience, which could result in less attention being given to it. In this scenario, the child's affective mechanisms may lead to a positive brand evaluation (Eva, et al., 2012)

As per John's study conducted in 1999, age also significantly impacts the comprehension of advertisements in children aged between 7 and 10 years. The findings showed that the older children, belonging to the age group of 9-10 years, displayed a more advanced comprehension of various forms of advertisements than the younger children aged between 7-8 years (John, 1999). This supports the notion of developmental progression in understanding advertisements during this age range. The theory was that younger children would exhibit a more significant difference in comprehending television advertisements

versus non-traditional advertisements compared to older children. However, the results indicated that the imbalance in comprehension of television and non-traditional advertisements did not show a reduction with increasing age (Owen, et al., 2013). The conducted study also revealed that even the children belonging to the age group of 9-10 years, commonly referred to as fifth graders, were unable to accurately evaluate non-traditional advertising in the same manner as they did for television advertising. This could be attributed to the fact that non-traditional advertising techniques operate more covertly than television advertising. These techniques are, therefore, fundamentally more challenging to recognize, even among older children (John, 1999).

### **3.6 Brand Attitude: advertisements effectiveness indicator**

Brand attitude is a valuable indicator of the effectiveness of advertising (Te'eni-Harari, et al., 2009). This attitude is considered an emotional reaction to the advertising (Reijmersdal, et al., 2012). Furthermore, studies suggest that advergaming seamlessly include brands into their gameplay and can draw more favorable brand attitudes in players (Rifon, et al., 2014).

The Elaboration Likelihood Model (ELM), developed in 1986 by Petty and Cacioppo, is the most used model for understanding how attitudes can be changed. According to this model, attitudes are generalized opinions people form about themselves, others, objects, and issues (Petty & Cacioppo, 1986). In 1983 Petty, Cacioppo, and Schumann identified two routes leading to attitude change. Attitudes that are changed along the first route, the central route, occur due to thorough consideration and evaluation of information. The second route, the peripheral route, is not based on deep thinking or assessment of a situation's pros and cons but on associating positive or negative cues with the object being promoted (Richard E. Petty, 1983). For instance, individuals may accept an argument or idea because it is presented appealingly (Richard E. Petty, 1983). Playing a fun and engaging Advergame in advergaming may positively change the player's attitude towards the game, influencing their perception of the brand being promoted (Martin K.J. Waiguny & E., 2011). In 2010 Buijzen, Van Reijmersdal, and Owen introduced a third elaboration process, called the automatic method, which leads to attitude change without the person's awareness or knowledge of the persuasive intent of the communication (Buijzen, et al., 2010). This process is an analog to the peripheral route of the ELM, as both routes involve less critical, less deliberate processing of the information (Richard E. Petty, 1983). The 2<sup>nd</sup> and 3<sup>rd</sup> elaboration methods

are like the spillover effect described before by Dong-Wook Lee. All described methods involve transferring attitude towards the placement mentioned in Advergame. (Lee, 2021).

Highly integrated forms of advertising, such as advergaming, may rely on the automatic persuasion route due to children's limited awareness of subtle advertising (Buijzen, et al., 2010). However, research on the Elaboration Likelihood Model (ELM) among children between the ages of 4-15 suggests that they do not follow either the central or the peripheral route but instead follow a path between the two; in other words, when conducting research with children, researchers view the ELM as a combination of 2 courses, as a spectrum (Te'eni-harari, 2007).

Purchase intention is an essential indicator of advertising effectiveness, frequently used in empirical studies exploring consumer behavior after exposure to advertising stimuli. This trend stems from the theory of reasoned action, which assumes that a person's intention to perform a particular behavior strongly indicates their actual conduct (Ajzen, 1991). This theory applies to purchase intention and purchase behavior. The more a person intends to purchase a product, the more likely they will buy it. The elaboration process, which refers to how a person thinks about a product, can also influence their behavior and intentions (Buijzen, et al., 2010). Several studies have examined children's behavioral intentions towards advertising and found that advergaming, or the integration of brands into games, significantly affects their purchase request intentions and brand preferences. For instance, research has shown that girls aged 11-17 who played games featuring brand placement showed a stronger intention to buy than those who did not encounter a brand during the game.

Similarly, other studies have confirmed that actively playing advergaming notably impacts children's brand preferences (Vanwesenbeeck, et al., 2017). According to Zaichkowsky, product involvement is the extent to which a product is personally meaningful to an individual based on their needs, values, or interests (Zaichkowsky, 1985). This can affect how consumers process advertising, with the more significant effort put into processing information for high-involvement products than for low-involvement products (Verolien Cauberghe, 2010). While product involvement has been studied in adults and advergaming, it has yet to be examined in children. However, research has shown that a child's level of product involvement can positively influence the effectiveness of printed advertisements (Te'eni-Harari, et al., 2009). It is also possible that different product types may have varying effects on emotional reactions to advertising and attitude change (Gross, 2010).

According to recent studies on adults, product involvement, which is the level of personal relevance a product holds for an individual, positively impacts their brand attitude (Chen & Leu, 2011). While these studies focused on adults, it is reasonable to assume that product involvement plays a similar role in children's persuasion processes (Te'eni-Harari, 2013).

Previous studies on printed and TV advertisements have also shown that product involvement affects children's brand attitudes (Te'eni-Harari, et al., 2009), (Te'eni-Harari, 2013). For example, when children viewed a printed advertisement featuring a high-involvement type of product, their attitudes toward the brand were significantly more favorable than a low-involvement product (Te'eni-Harari, et al., 2009). This indicates that advertisements for meaningful and relevant products to children are more likely to influence their attitudes than advertisements for other products (Te'eni-Harari, et al., 2009).

Furthermore, in 2009, product involvement also affected children's purchase intentions. Children who were highly involved with an advertised product were significantly more likely to buy it (Te'eni-Harari, et al., 2009).

Marketers should also take into account the prior brand attitude. It refers to an individual's pre-existing attitude towards a brand before exposure to any advertising stimulus. This attitude can significantly impact a consumer's attitude and behavior toward a brand after exposure to advertising (Joseph E Phelps, 1996). For example, if consumers have a positive attitude towards a brand, they are less likely to be critical of advertising for that brand (Amitava Chattopadhyay, 1990). As a result, when confronted with advertising for a previously positively evaluated brand, there will be less resistance against persuasion, resulting in a positive elaboration process (Lee, 2010).

Scientific studies have investigated the impact of prior brand attitude on advertising effectiveness, particularly in-game advertising among young adults. For example, recently, it was found that initial brand attitude had the most significant impact on brand attitude after playing the game (Gunnar Mau, 2008). Similarly, previous research on advertisements' affection for children suggests that children's prior brand attitudes positively affect their brand attitudes after viewing an advertising stimulant. Therefore, advertisers need to consider their target audience's perspectives towards their brand when developing advertising strategies (Joseph E Phelps, 1996).

The framework is based on the theory of Ian Bogost (study of digital games' persuasiveness) and the post-research by Teresa de la Hera regarding Digital gaming and the advertising landscape.

## 4 Methods

For my research, I followed a qualitative data-gathering approach due to the vast parallels between people's perceptions, context dependence, and the overall influence of advertisements on people and their consciousness. Flexible data collection methods also served a significant role by allowing me to reach and utilize various types of research of several scholars and scientists. Another reason for choosing a qualitative approach for my analysis was that most available examinations regarding Marketing and Games are described in a non-numeric form. Therefore, in addition to the gathered text-based data, I also included images, feedback from focus groups, notes, and observations of other researchers.

In the research, I aimed to cover a few companies and video games to demonstrate the involvement of product placement and the overall Marketing sphere in the video games industry. To fulfill it, I chose the "Multiple case study" method. It allowed me to explore the marketing influence phenomenon from various perspectives and provide examples of cases when companies integrated advertisements into video games or used other manipulations within the game's environment to advertise a product. The mentioned scientific method furthermore allowed me to identify the common patterns between games, inserted advertisements, and overall feedback of players towards these placements, which I presented in the Result's chapter. The collected and analyzed data from the mentioned games could be used to develop an understanding of the underlying reactions within players' consciousness when they are being targeted by advertisements and, in addition, provide detailed descriptions of how to affect them in particular to gain positive feedback.

The video games for my research have been chosen to demonstrate the variety of product placements that could be inserted into a game. Although, in the chapter below, I provided broad explanations of each video game, in this chapter, I will clarify why I chose these games specifically from the vast roster of different games produced since the 70s.

My list contains Death Stranding, Fortnite, Lego Games, Mario Kart, and Alan Wake.

Each of these games contained product placement in some particular way.



In some cases, players were not satisfied and even acted against the games with built-in advertisements due to their intrusive appearance or negative effect on shaping the in-game's atmosphere; 3 out of 5 games I listed have encountered such problems. The games that displayed aggressive product placement were Death Stranding, Mario Kart, and Alan Wake. Contrary to these three games, the other two (Fortnite and Lego Games) had overall positive feedback from players.

The described games and their marketing interactions could perform as instructions for the future generation of marketers by providing data regarding their successful and unsuccessful decisions, which pinpoints the "How to demonstrate Ads within video games" without causing negative feedback from players.

## **5 Results**

### **5.1 Death Stranding and Monster Energy + AMC Ride**

Death Stranding is an action-based video game produced by Japanese studio Kojima Studios and published under the patronage of Sony Interactive Entertainment as exclusive material for PlayStation 4 systems on November 8, 2019. A year later, in 2020, Kojima Studios announced a port on Personal computers (PC) which have been delivered on July 14. The production was announced in 2016 at Sony's conference during E3 2016 EXPO (deathstrandingpc.505games, 2019).

Death Stranding is a 3D open-world game with a single-player campaign at its core. The game itself doesn't have a multiplayer mode like other video games. Instead, it implements a rare method in the gaming industry: non-direct cooperative multiplayer or asynchronous online cooperative gaming. The mentioned method allows players to interact with each other through in-game mechanics such as: "provide supplies," "send likes," "graphic markers," etc. All the information described above works asynchronously. All the interactions between players work solely in the background and don't change the idea that the player is always alone.

Campaign's duration shifts from 30 to 40 hours. Regarding the genre, the game itself doesn't have a specific genre to align with, but it borrows characteristics of a few genres like action, adventure, Role-playing and horror.

The advertisements in *Death Stranding* are presented as “Static in-Game Advertising.” The term describes those advertisements that take the form of product placement inside video games. Such advertisements are implemented inside video games during their design and development stage, allowing more customized integration. Usually, such advertisements are integrated into a game's storyline or allow players to interact with a brand. In the case of *Death Stranding*, in-game product placement was presented inside the private quarters of the main character, by energy drink “Monster Energy”, and a poster of a TV show “Ride”. The poster additionally mentions the AMC, the network behind the program.

During the leading campaign, players find out that the main character must rest from time to time to restore energy and, in some cases, receive briefings regarding the following missions; for these cases, the game presented new features, the “home bases” or “save points.” In the so-called bases, players could interact with objects which appear through the story progression. For example, one of the first presented objects on the grounds is Monster Energy soda cans and the Bathing tub. In both cases, while the player interacts with these objects, the game launches cinematics of how the main character drinks the energetic drink or takes a bath with a pop-up image of AMC Ride. The major part of players didn't acknowledge the presented advertising methods due to violations of the game's immersion.

*Figure 1 Monster beverage*



Source: *Death Stranding* official website (<https://deathstrandingpc.505games.com/en/#media>)

Figure 2 AMC Ride advertisement



Source: Death Stranding official website (<https://deathstrandingpc.505games.com/en/#media>)

By 2021 year was officially announced the number of sold copies; the amount is 5 million copies. The all-time peak on personal computers was 32072 players remaining simultaneously on servers of Steam (digital distribution service and software client by Valve). Numerous commentators noted that Death Stranding resembles the COVID-19 pandemic; comparisons were made due to similar events in both worlds (deathstrandingpc.505games, 2019).

## 5.2 Fortnite and Collaborations

Fortnite is a battle royale 3<sup>rd</sup> perspective shooter whose ultimate goal is to gather the best weapons, eliminate 99 other players, and remain the last person standing in an ever-shrinking arena. It was developed by Epic Games and released on December 8, 2018 (Public testing began on July 21, 2017, when the “Early Access” version was published) (Fortnite official website, 2017).

The video game was released on all past-gen consoles (Ps4, Xbox One), IOS, Android, and PC and later ported onto current-gen consoles. A free-to-play system distributes Fortnite, and monetization is presented as an in-game shop with all types of online merchandise, from player skins (costumes) to dance moves for their avatar. In-game purchasable currency is called V-Bucks. The game earned \$2.4 billion in 2018 due to the mentioned cosmetic skins

shop. In addition, the game usually receives new updates, game mods, cosmetics, and other items. Even in 2022, the strategy of Epic Games attracts new users and holds already remaining ones (Fortnite official website, 2017).

Fortnite is a 3<sup>rd</sup> personal 3D action video game with cartoon-stylized graphics. The video game is available in 3 versions using the same graphical engine.

Fortnite: Battle Royale is a free-to-play battle royale genre game in which up to 100 players land on an island, gather weapons, and eliminate each other until the last survivor. The match's average length counts from 15 to 25 minutes. Additionally, the game controls the length of a competition by narrowing the playground circle to push the players to act more actively. This mode became popular because online streamers streamed the game mainly on Twitch and later on YouTube.

Fortnite: Save the World is a PVE (Player Versus Environment) cooperative game with up to 4 players collaborating towards a common objective on various missions (Lee, 2022). Majority of provided missions push players to work in teams to survive against large group of enemies.

Fortnite Creative: is a custom sandbox game mode where players are given complete freedom to spawn any item from the other methods and socialize. The creative way counts as a dating Hub where players spend their leisure and accomplish daily goals with other community members.

Fortnite is not using traditional in-game advertisements; inside the game, you won't be able to find any ads that boost your experience or other characteristics. Instead, the companies create engagements with the Fortnite community through streamers. One of the examples is the recent cooperation of a well-known streamer "Ninja" with UberEats, where for the number of "kills" he made from the minute he ordered food through the platform until it arrived at his door, viewers of the online stream would receive 1% off the UberEATS order. By the arrival of the food, the streams hit 25 "killstreak," which provided his watcher a 25% off discount coupon (Lee, 2022).

Due to the game's popularity, Epic Games partnered with other famous franchises and companies to create unique product placements. Examples of such partnerships are "Nike Air Jordans," which were redeemable from the in-game shop, playable avatars from such movies as "John Wick," "Avengers," "The Mandalorian," and many more (Lee, 2022).

One of the most unique cases was the one with the café franchise Wendy's. When Epic Games teased the upcoming new mode called "Food Fight," where players have to choose from 2 fictional restaurants to fight for (Pizza Pit, Durr Burger), the food chain Wendy's created their avatar and streamed the game on "Twitch." Due to the company's slogan "Fresh, never frozen," Wendy's chose to participate on behalf of "Pizza Pit" to destroy all the freezers on the "Durr Burgers" side. Such a move from the company demonstrated their commitment to fresh ingredients and additionally created a great wave of awareness. The Twitch stream viewers watched in total over 1.5 million minutes of the provided in-game content. In addition, the concerts of such worldwide known artists as Ariana Grande, Travis Scott, Marshmallow, and many others have been announced and fully staged on in-game map which played the role of a concert field (Lee, 2022).

## Images:

Presentation of a playable character inspired by the movie trilogy "John Wick."

*Figure 3 John Wick character*



*Source: Fortnite AdRoll Blog ([Unrolling: Fortnite | AdRoll](#))*

Cooperation between streamers "Ninja" and "UberEats."

Figure 4 Ninja and UberEats



Source: Fortnite AdRoll Blog ([Unrolling: Fortnite | AdRoll](#))

“Wendy’s” fridge elimination stream and presentation of a new character.

Figure 5 Wendy's Food Wars mode



Source: Fortnite AdRoll Blog ([Unrolling: Fortnite | AdRoll](#))

A fully staged graphic concert of Ariana Grande presented as a match session.



Figure 6 Ariana Grande's in-game concert



Source: Fortnite AdRoll Blog ([Unrolling: Fortnite | AdRoll](#))

## 5.3 Lego and video game industry

### 5.3.1 History of Lego

There was a company that produced bricks, but not the casual bricks, the bricks which led the generations of kids and defined play time around the world. Unfortunately, those bricks still get missed under the sofa, which shows everyone the pain levels when accidentally stepped on them and the ones used by the current generation of kids to enlarge their creative vision and push their proactive minds into less restless activities. Time passes, but the fact remains that the constructed brick of the long passed 1958 year could be fully attachable to the newer models.

The first ever brick Lego was produced in 1949 and patented in 1958. The development of toys based around Lego bricks started in late 1950 without any competitors to deal with. The company rapidly expanded and produced a new collection of sets and parts (Herman, 2012). Over the next 20 years, LEGO Group developed and pushed new systems for more advanced and creative building, including moving sets with gears, wheels, and motors. By the 1980s, Lego populated the world, and new themes emerged. Due to the popularization of toys, LEGO Group started developing thematic parks and recognizable brands through licensed toys, video games, stores, clothing, and the LEGO website (Herman, 2012). Soon, the LEGO Group will find a gold mine by licensing famous characters and franchises, which will produce

brand new sets of merchandise, films, cartoons with licensed characters, LEGOLAND, and more.

*Figure 7 Toys produced by Lego*



Source: Lego history book (Herman, 2012)

*Figure 8 Toys produced by Lego*



Source: Lego history book (Herman, 2012)

### **5.3.2 Lego Software and video games**

Lego games are a group of various types of games designed in LEGO cubes way and carrying the attributes of LEGO within storytelling and world creation. The core mechanics of all developed video games are linked to such genres as platforming, action, puzzle and adventures. Since 1995 Lego has produced 85 commercial video games based on Lego bricks, a construction system created by the “Lego Group.” Unfortunately, a large percentage of



video games from the early 2000s started shifting the multiplayer to online, while decreasing the number of games that included cooperative split-screen options. Still, the LEGO company has kept this tradition alive, which perfectly resonated with its current audience. Whether it is LEGO's engaging level design or the decorative visual elements, the LEGO video game series has perfected the formula of creating a family game that both adults and children can enjoy and create priceless memories while playing (Lego video games, n.d.).

Till 2001 “The Lego Group” produced only original video games such as “Lego Fun to Build,” “Lego Island,” and “Lego Chess”. In 2001 “Lego Software” (the video game publishing division) changed the direction of game publishing and released the first Lego game based on a licensed property. The first licensed video game was Lego Creator: Harry Potter, a construction and management simulation videogame based on the 2001 Harry Potter movie, Harry Potter and the Philosopher’s Stone (Lego video games, n.d.). After the mentioned release, Lego Software started also cooperating with other famous brands to inherit the characters and worlds into their videogames, such as:

### **5.3.2.1 Lego Star Wars**

The video game, released on March 29, 2005, included story-based campaigns which covered the Star Wars Prequel trilogy, which consists of: “The Phantom Menace, Attack of the Clones, and Revenge of the Sith”. Developers of the game were “Traveller’s Tales and Griptonite Games” It was presented on PC, Microsoft Xbox, Sony PlayStation 2, and Game Boy Advance.

*Figure 9 Lego Star Wars*



Source: Lego Games official website (<https://www.lego.com/en-it/games>)

Figure 10 Lego Star Wars



Source: Lego Games official website (<https://www.lego.com/en-it/games>)

### 5.3.2.2 Lego Pirates of the Caribbean

Lego-themed action-adventure game developed by Traveller's Tales and published by Disney Interactive Studios. The video game covered the tales of Jack Sparrow through the first four movies of Pirates of the Caribbean. Released in May 2011 with the release of Pirates of the Caribbean: On Stranger Tides. The release allowed the young generation to enjoy the adventures of the famous pirate more interactively.

The game is available on Microsoft Windows, Mac OS X, Nintendo 3DS, Nintendo DS, PlayStation 3, PlayStation Portable, Wii, and Xbox 360 platforms.

Figure 11 Lego Pirates of the Caribbean



Source: Lego Games official website (<https://www.lego.com/en-it/games>)

Figure 12 Lego Pirates of the Caribbean



Source: Lego Games official website (<https://www.lego.com/en-it/games>)

In 2022, Lego video games have already found their niche and still actively use placement insertion strategies due to many partnership programs with such worldwide known brands as Disney, Harry Potter, Star Wars, Ferrari, Marvel, and many more. In addition, the company receives profit from the video games segment, and the variety of toy collections of famous characters and constructions mentioned.

## 5.4 Mario Kart and Mercedes Benz

Mario Kart is a series of racing video games developed and published by Nintendo. Players compete with each other in go-kart races while utilizing various power-up items. The game features main characters from the Mario games but also adds famous characters from other well-known series of Nintendo such as Legend of Zelda, Splatoon, Animal Crossing, etc (Nintendo, 2014).

The origin of famous video game series began in 1992 with the first launch of Super Mario Kart on Super Nintendo Entertainment System consoles. The video game series consists of 14 games, with six on home consoles, three on portable consoles, four games on arcade machines co-developed with Namco, and one for mobile phones. The latest released game in the main series was Mario Kart Live released on Nintendo Switch Systems in October 2020.

Gameplay is based on kart races with the insertion of power-up items which could be listed into one of the categories used: attack, support, and defense; the player utilizing the thing could affect himself the same as others. The items are shown through interactive, colorful boxes with question marks. They are placed at random points around the map. To obtain the item player must pierce through the box. These power-ups include Mushrooms to give players a speed boost, Shells that function like auto-navigated rocket missiles, and various other abilities. The game mechanics consider positioning while granting a player an item out of the box. While the player taking the first lines will receive only the various types of defensive things, the player who is lagging, in the end, will be granted speed boosts and multiple types of oppressive things to reach the rest of the team. The items are not the only mechanic which sells the Mario Kart series. Another such mechanic is called “Power Sliding,” or how it is called by players “Drifting”. The so-called drifting helps players to bend around sharp corners of the map and take an advance over players strategically. There is also a hidden mechanic inside drifting, the so-called “Driving techniques.” While performing a drift technique, player could receive a slight boost to speed which varies and is measured from the completed drift action (Mario Kart Fandom Website, n.d.). Due to the wide variety of maps in the latest games of the Mario Kart series, developers added a new cosmetic feature that transforms the player’s karts while entering certain zones, as the water zones where the kart turns into a boat version of itself and the air zones where kart takes the form of a gliding plane (Nintendo, 2014).

On August 27, 2014, Nintendo released a new Downloadable Content (DLC) for their latest Mario Kart game, Mario Kart 8; the content for DLC was inspired by the globally famous car manufacturer Mercedes. The cooperation between Nintendo and Mercedes brought the new vehicles inside Mario Kart 8 game. Particularly 3 different Mercedes-Benz karts have been shown, fully customizable with other kart’s parts. The presented carts were the Silver Arrow from the 1930s, the 300 SL Roadster from the 1950s and the modern model of Mercedes-Benz GLA. (emercedesbenz.com, 2014)

Mercedes-Benz W 25 Silver Arrow

The Mercedes-Benz W 25 is a well-known racing car that Mercedes-Benz built for the 750 kg formula in 1934. It was powered by a 3.4-liter eight-cylinder engine developing around 350 hp. The car’s first racing appearance at Nürburgring took Manfred von Brauchitsch to victory immediately.



Figure 13 Mario Kart 8, Silver Arrow



Source: Mercedes Benz official website ([Mario Kart 8 Players Get Ready to Start Your Mercedes-Benz Engines | eMercedesBenz](#))

#### Mercedes-Benz 300 SL Roadster

The Mercedes-Benz 300 SL Roadster replaced the 300 SL “Gullwing” model which has been produced from 1954 to 1957. In contrast to the previous model, the Roadster version has a modified front end with upright headlamps. To be able to protect the owner during the harsh weather events, Mercedes-Benz has equipped the 300 SL Roadster with a mild top stowed beneath a cover behind the seats. A hard top became available in 1958, giving the Mercedes 300 SL Roadster a coupé-like appearance and comfort.

Figure 14 Mario Kart 8, Roadster



Source: Mercedes Benz official website ([Mario Kart 8 Players Get Ready to Start Your Mercedes-Benz Engines | eMercedesBenz](#))

## Mercedes-Benz GLA

The Mercedes-Benz GLA is the latest member of the new compact car generation. The Mercedes-Benz GLA represents the Sport-Utility Vehicles segment in the very impressive style. As the first Mercedes-Benz in this segment, it is easy to handle in urban traffic, fast on country roads and mountain passes and dynamic and efficient on the motorway.

*Figure 15 Mario Kart 8, Mercedes GLA*



Source: Mercedes Benz official website ([Mario Kart 8 Players Get Ready to Start Your Mercedes-Benz Engines | eMercedesBenz](#))

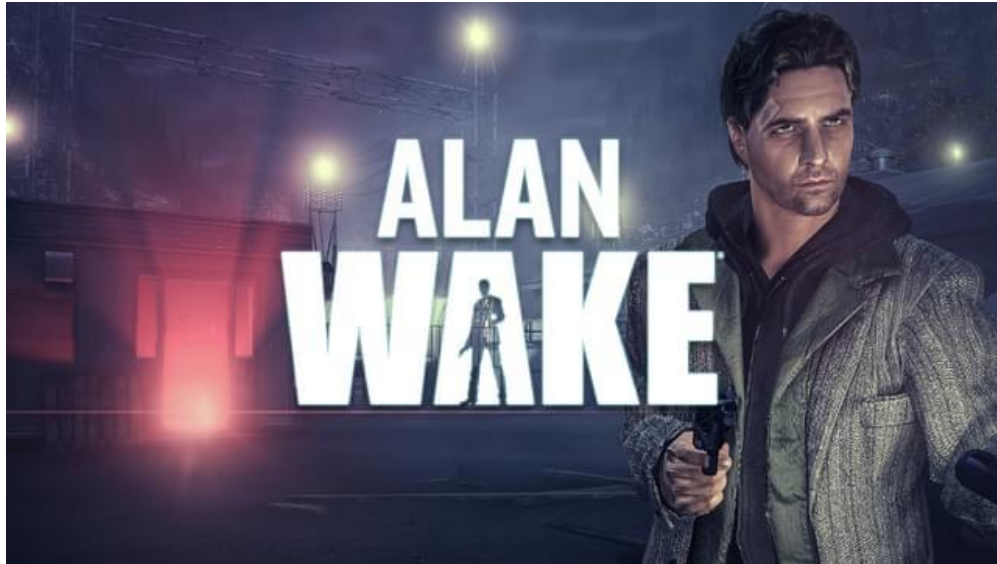
This cooperation between Nintendo and Mercedes-Benz was meant to be the first time in the Mario Kart series to receive fully 3D modeled versions of cars from the real world as the product placement inside breathtaking races. The collaboration also presented the worldwide online tournament “Mercedes Tournament” from August 27 to September 23rd of, 2014. Participation was available in a condition that the player would use Mercedes-Benz carts. (Esteves, 2014)

## 5.5 Alan Wake

Alan Wake is a psychological horror video game developed by Remedy Entertainment and published by Microsoft Game Studios. The video game was released in 2010 for Xbox 360 consoles and later on Microsoft Windows system in 2012. The game follows the story of a character, a best-selling thriller novelist, as he searches for his missing wife in the fictional

town of Bright Falls, while uncovering the secrets of the mentioned town. The game has been praised for its immersive story, innovative gameplay mechanics, and stunning graphics (Remedy Entertainment, 2010).

Figure 16 Alan Wake video game



Source: Remedy Entertainment official website (<https://www.remedygames.com/games/alan-wake/>)

Alan Wake is a third-person action-adventure game that combines elements of survival horror, exploration, and puzzle. The gameplay is divided into several chapters, each of which follows a different part of the story. Major part of the game passes during the night hours but in some essential moments, story allows main character to roam around the town, meet with local characters and advance through the story campaign during the daytime.

The core mechanic of the game is the use of light to combat enemies. Players must use a flashlight to weaken supernatural enemies before they can be defeated with weapons such as guns and melee attacks. The flashlight can also be used to reveal hidden objects or clues in the environment. However, the flashlight runs on batteries which must be collected throughout the game to keep it functional.

Players must also explore the game's environments to find hidden pages of Alan's script, which provide clues to the game's story and unlock new areas of the game. The game's environments are highly detailed and offer plenty of opportunities for exploration, players await hidden paths, collectibles, and a great amount of secrets to discover. (Remedy Entertainment, 2010)

Figure 17 Alan Wake video game



Source: Remedy Entertainment official website (<https://www.remedygames.com/games/alan-wake/>)

In addition to combat and exploration, Alan Wake features several puzzle-solving elements. Players must often use environmental objects to create paths or manipulate the environment to progress through the game. For example, players may need to turn on a generator to power a bridge or use a flare to light a fuse. Many mentioned puzzles circle the use of light in various circumstances.

As players progress through the game, they encounter various enemies, each with strengths and weaknesses. Players must use light and standard weapons to defeat these enemies, including possessed humans, giant birds, and other creatures of darkness.

The game's use of light as a central mechanic adds an innovative twist to the traditional combat system and the highly detailed environments in combination with immersive storyline offer's a truly unforgettable gaming experience (Remedy Entertainment, 2010).



Figure 18 Alan Wake video game



Source: Remedy Entertainment official website (<https://www.remedygames.com/games/alan-wake/>)

Alan Wake features several instances of product placement, which includes:

**Energizer Batteries:** Throughout the game, players can find and collect Energizer Batteries to power their flashlights, which are an essential tool for combatting the game's supernatural enemies. The Energizer brand is prominently displayed on the battery packs and is mentioned several times in the game's dialogue.

**Verizon Wireless:** In one scene, the protagonist uses a Verizon Wireless phone to call for help. The Verizon logo is visible on the phone's display.

Figure 19 Alan Wake video game



Source: Remedy Entertainment's official website (<https://www.remedygames.com/games/alan-wake/>)

**Ford Motor Company:** In the game, the protagonist drives a Ford SUV, and the car's logo is prominently displayed on the vehicle. The car's audio system is also mentioned in the game's dialogue.

**Axe Body Spray:** In one of the game's levels, players can find a can of Axe body spray, a brand of men's grooming products. The brand's logo is visible on the can.

**Nokia:** During one of the game's cut scenes, a character uses a Nokia phone to take a picture. The Nokia logo is visible on the phone's display (Remedy Entertainment, 2010).

*Figure 20 Alan Wake video game*



Source: Remedy Entertainment's official website (<https://www.remedygames.com/games/alan-wake/>)

## 6 Discussion

### 6.1 Overall effect of placements inside video games on players purchasing decisions

Product placement in video games has become a popular marketing strategy in recent years. The placement of a brand or product within a video game can be a subtle way to promote it to the player. This method raises the question of whether product placement in video games

has an impact on players purchasing decisions. In this discussion part, I will explore the available data on the subject and draw conclusions based on the findings.

At first, research has shown that product placement in video games can have a significant impact on players purchasing decisions. According to research studies, most gamers surveyed said they had bought a product after seeing it in a video game. This data suggests that product placement in video games can be an effective way to influence consumers' buying decisions.

Furthermore, the study found that product placement in video games is particularly effective among younger gamers.

However, it is worth noting that the effectiveness of product placement in video games depends on various factors, including the type of game, the context of the placement, and the audience. The conducted researches state that the placement of a product in a video game has a more substantial impact on players purchasing intentions when the placement is integrated into the game's storyline rather than as a standalone advertisement. Additionally, the performed studies found that the effectiveness of product placement in video games is higher when the audience is already familiar with the brand. Therefore, it is important for marketers to carefully consider these factors when implementing product placement in video games.

Michelle R. Nelson, a professor of marketing at the University of Illinois, conducted a study in which she examined the effects of product placement in video games on players' brand recall and attitude towards the brand. The study found that players exposed to product placements in video games had a higher brand recall and more positive attitudes toward the brand than those not exposed to the product placements. However, the study also found that the effectiveness of product placements varied depending on the type of game and the placement frequency.

In Alan Wake, players encounter product placements of various brands throughout the game, including Energizer batteries and Verizon wireless service. These product placements are integrated into the game's storyline, with the protagonist using the products to survive and progress through the game. While there is no research and statistics specifically on the effectiveness of the product placements in Alan Wake, some players and reviewers have criticized the game's use of product placements for being too plain and intrusive.

In *Death Stranding*, players encounter placements of various brands, including Monster Energy drinks and AMC posters, throughout the game. These product placements have also been integrated into the game's storyline, with the protagonist using the products to boost their energy and stamina. In the same case as with *Alan Wake*, there is no data specifically on the effectiveness of the product placements in *Death Stranding*. Still, some players and reviewers have criticized the game's use of product placements for being too distracting and distracting from the game's immersive experience.

## **6.2 Children and video games**

The current generation of kids quickly apprehend any information being broadcasted by all sorts of media, including video games. The interactive part of video games attracts all ages. In the case of children, most of them can't easily distinguish the inserted product placement from interactive entertainment's base structure; as a result, they absorb the advertisement as something familiar in mix with provided story narrative and atmosphere without encountering any distress. Adults, on the contrary, can fully distinguish something that is inserted in a game purposefully in a manner of something that holds a message aimed at a player from the solely entertaining details of the game.

In recent years, product placement in video games has become increasingly common for companies to reach younger audiences. As a result, the impact of product placement on children's attitudes and behaviors has been a topic of interest for researchers, and the findings suggest that kids have mixed reactions to this advertising tactic.

On the one hand, children are generally aware that they are being marketed and are skeptical of the reliability of product placement in video games. On the other hand, research has shown that kids often view product placement as a way for companies to manipulate them into buying their products. They may also be annoyed by the intrusion effect of advertising into their gameplay experience, particularly if it feels forced or unrelated to the game, which, as a result, ruins the joy of the playing process.

On the other hand, children are also prone to the influence of product placement. For example, studies have shown that exposure to product placement in video games can increase children's brand awareness and positive attitudes toward the products being promoted. This effect may be decisive for younger children with less developed critical thinking skills.

It is worth mentioning that the impact of product placement on children is not a static phenomenon and can change based on several factors, such as the child's age and gender, the type of product being promoted, and the context in which the placement occurs. More research is required to fully understand the effect of product placement in video games on children's attitudes and behaviors.

### Mario Kart 8 case

In 2014, the popular racing game Mario Kart 8 featured a product placement campaign in collaboration with Mercedes-Benz. This campaign allowed players to race using Mercedes-Benz cars in the game, with various advertising placements and branding present throughout the game's tracks and menus. In addition, the cooperation between the 2 companies appeared in the form of DLC (Downloadable Content), containing three new vehicles of the well-known Mercedes brand, which players could use to compete with other players in virtual online/offline tournaments.

The Mario Kart Mercedes advertisement campaign received mixed reactions from gamers and industry experts. Some responses were positive, with players expressing excitement about adding real-world vehicles from a well-known brand to the game. Fans of both Nintendo and Mercedes-Benz appreciated the novelty of being able to race in Mario Kart with iconic Mercedes cars, and some players enjoyed the aesthetic appeal of the elegant and stylish Mercedes-themed content.

On the other hand, there were also adverse reactions from some players and fans. Some players expressed their concerns about the potential commercialization and intrusion of advertising in a beloved video game franchise. They viewed the inclusion of Mercedes-themed content as a form of product placement that could disrupt the immersion and authenticity of the Mario Kart experience. In addition, some players felt that the integration of Mercedes ads in Mario Kart 8 was a pure form of advertising that was not fitting to the core gameplay and harmed the game's overall enjoyment.

However, there is limited research on the effectiveness of product placement in video games and even less research on its impact on children, who are a vital target audience for games like Mario Kart. This case provides an opportunity to examine the potential effects of product placement in video games on player attitudes and behaviors and explore the differences in response between adult and child players.

Fortnite case:

Fortnite is a popular online video game with a massive following from children and young adults. One aspect of the game's revenue model includes in-game advertisements that appear in various forms, such as billboard ads, sponsored items/challenges, and branded cosmetic skins. However, the game is distributed free of charge in Epic Games Store webshop. Fortnite has incorporated various forms of product placement and advertising within its virtual world, including collaborations with brands from different industries. For example, Fortnite has featured limited-time in-game events and cosmetic items based on popular movies, TV shows, music artists, sports, and other brands. Some notable examples include collaborations with Marvel, DC Comics, Star Wars, Nike, Travis Scott, and many others. These advertisements are often targeted at children, who comprise a significant portion of the game's user base.

While in-game advertisements are a common practice in the gaming industry, their impact on children's attitudes and behaviors has been debated and concerned. On the one hand, some players and fans enjoy the novelty and excitement of seeing their favorite brands and characters integrated into the Fortnite universe. They may appreciate the unique in-game events and cosmetic items that result from these collaborations, which can enhance the overall gameplay experience and provide additional content for players to enjoy. On the other hand, there are also concerns and criticism regarding the commercialization and potential impact on players, which have been driven by the fact that the significant segment of Fortnite players is children and adolescents, who may be more susceptible to advertising messages.

Some studies suggest that presented advertisements can influence children's purchasing decisions and brand loyalty, while others argue that children can distinguish between game content and advertisements. The Fortnite case aims to explore the ethical implications of advertising to children in video games and the potential risks of exposing children to advertising in an environment that blurs the line between entertainment and commercial content. By providing insights about the impact of in-game advertising on children, this study can help inform industry standards and policies around advertising practices in the gaming industry and promote responsible advertising practices aimed at children.

#### Lego Case:

Lego video games are a popular video game genre specifically targeted toward children by featuring the iconic Lego toy bricks and characters. These games often contain product placement as a form of advertising within the gameplay. Furthermore, the core gameplay

and world structure are formed on these Lego bricks, contributing to the atmosphere and overall effect on the player.

Video games featuring Lego bricks and characters can increase children's brand awareness by prominently featuring Lego products, characters, and themes throughout the gameplay. For example, Lego video games such as "Lego Star Wars," "Lego Pirates of the Caribbean," and "Lego Harry Potter" demonstrate various Lego sets and characters from these popular franchises, which can enhance children's familiarity and attraction towards the Lego brand. Regarding the featured in-game locations, the company also releases the above-mentioned sets in physical form. Lego video games can also influence children's attitudes towards Lego products by creating positive associations through gameplay. For instance, children may develop positive attitudes towards Lego toys as they engage in imaginative play with Lego characters and structures in the video game's virtual world. This positive emotional connection can transform into increased desire and motivation to purchase Lego products in the real world.

The mentioned video games can also impact children's purchase intention, as they may desire to own Lego sets and characters they encounter in the game. For example, when children play a Lego video game that features a specific Lego set, they may desire to own that particular set to recreate the virtual experience in the physical world. This can influence children's consumer behavior and increase sales of Lego products. Lego video games can also affect children's play patterns, as they may pursue to recreate the virtual gameplay experiences with physical Lego bricks. For example, after playing a Lego video game that involves building and customizing virtual Lego structures, children may be inspired to create similar designs with their physical Lego sets, boosting creativity and imaginative play.

Nevertheless, it is worth noting that children may also exhibit skepticism and resistance toward product placement in Lego video games. As research has proven that children, step by step, become more aware of advertising tactics, they may question the authenticity and credibility of product placement within the game. Children may also resist or become annoyed by obvious and intrusive advertising messages that disrupt their gameplay experience.

It is essential to consider that the impact of advertising in Lego video games on children can be influenced by various factors, such as the age, gender, and individual characteristics of the child, as well as the specific content and context of the game. Additionally, parental

involvement and media literacy can significantly shape children's perceptions and responses to advertising in Lego video games.

By analyzing players' reactions, sales data, etc. this study aims to provide a better understanding of the effectiveness of product placement in video games and its potential impact on consumer behavior. In addition, these case studies of the Mario Kart 8, Fortnite, and Lego Games advertisement campaigns could serve as a valuable reference for future product placement efforts in the gaming industry and companies looking to target younger audiences.

## **7 Conclusion**

In conclusion, development of graphics and overall video games organization allowed incorporation of highly detailed advertisements, which increased interest of business actors in gaming industry. The research on product placement in video games suggests that it can have a significant impact on players purchasing decisions, particularly among younger gamers. The effectiveness of product placement in video games depends on various factors, including the type of game, the context of the placement, and the audience's familiarity with the brand. Integrating product placements into the game's storyline by that enhancing the experience appears to be more effective, than self-standing advertisements. Additionally, it has been revealed that product placement can improve players' attitudes and overall brand recalling.

On the other hand, product placement in video games didn't fully evade the consequences of advertisement insertion. Some players and reviewers have criticized certain instances of product placement for being intrusive and detracting from the immersive experience of the game. Children, in particular, may have mixed reactions to product placement, with some viewing it as manipulative and others being influenced by it due to their limited critical thinking skills.

The reviewed case studies of video games in my thesis acts as an evidence and demonstrate both positive and negative reactions to product placement. While some players appreciate the uniqueness and aesthetic appeal of brand integrations, others express concerns about the commercialization of beloved franchises and the potential impact on player experience.

To better understand the effects of product placement in video games, further researches are required, especially regarding its impact on children's attitudes and behaviors. Factors



such as age, gender, individual characteristics, and parental involvement can influence the effectiveness and overall response to product placements in games. By analyzing player's reactions, sales data, and other metrics, future studies can contribute to a better understanding of the role and effectiveness of product placement in the gaming industry. The majority of data for researches have been received within established artificial zones, which aimed to recreate home comfort for successful data gathering. Such zones played their roles successfully, but for more precise examination of players and their reactions toward advertisements, will require more precise data collection methods.

The collected data suggests that product placement in video games can be an effective marketing strategy when carefully implemented and tailored to the target audience. In 21<sup>st</sup> century it provides opportunities for companies to reach and engage with consumers in a unique and interactive way. Nevertheless, ethical considerations, player experience, and the balance between entertainment and commercial content should be taken into account to ensure responsible advertising usage in the gaming industry.

## **7.1 Limitations to research**

1. **Limited sampling:** Most studies on gaming and product placements have used small sample participants, which may not represent the broader population of gamers. This limits the interpretability of the findings.
2. **Experimental background:** Some studies have used experimental settings that do not reflect the natural gaming environment, which may limit the natural validity of the findings. To be more precise, researchers must adapt new methods of data collection to evade distortions and receive more precise data.
3. **Measurement difficulties:** Measuring the impact of product placements in games could be challenging, considering that it is often difficult to separate the effects of product placements from other factors that may influence the player's behavior.

4. Limited research on specific types of games: While some studies have focused on particular genres of games, such as sports games or first-person (viewpoint from the character's perspective) shooters, other genres lacked attention of researchers, there is still a limited understanding of the effectiveness of product placements in other types of video games. Expansive data collection must be performed to cover the current variety of genres that gaming industry incorporates within.

## **7.2 Future researches**

I hope that my research would serve as a form of a roadmap for future studies within this field, by inspiring and guiding researchers in their pursuit of knowledge. By offering a roadmap that identifies gaps, uncovers insights and highlights the practical implementations of mentioned methods, my research lays the field for future studies to build upon.

My research has identified areas that require further investigations. The mentioned gaps in knowledge represent the opportunities for future studies to analyze in-depth.

I encourage the future researchers to consider the insights and directions presented in this thesis. Through collective efforts we will be able to broaden the knowledge about gaming and its relation with marketing; by addressing unanswered questions, developing new approaches and shaping the future of research in the field of digital gaming.

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