

Case Study Analysis of Cyberpunk 2077's Content Marketing Strategies

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Abstract: The booming relationship between the gaming industry and advertising has fostered marketers' interest in leveraging digital games as a marketing tool. This change is the result of technological advancements, the widespread use of mobile and broadband internet, and the ensuing growth of the gaming sector, all of which have fueled the appeal of digital gaming as a successful marketing channel. Cyberpunk 2077 exemplifies this trend, with the game attracting not only players but also marketers looking for innovative advertising avenues. Through regular social engagement and an immersive gameplay experience, Cyberpunk 2077 has become an engaging medium that can seamlessly convey advertising messages without compromising the consumer experience. As traditional media readership dwindles and there is a shift toward interactive platforms, marketers are increasingly looking to digital games as a cost-effective, measurable and engaging channel to reach their target audiences. This fusion of entertainment and advertising blurs the lines between the two realms, creating a novel form of branded content that resonates with consumers. However, not all game marketing efforts are successful, often due to marketers' lack of understanding of the unique dynamics of game culture and design principles. To bridge this gap, it is crucial to take a comprehensive approach to games marketing, leveraging insights from game research, brand management and advertising strategy. By combining advertising messages with the immersive experiences offered by digital games, marketers can effectively engage audiences and capitalize on the growing popularity of games as a form of entertainment.

Keywords: Cyberpunk 2077, marketing strategies, Content marketing, influencer marketing

1. Introduction

The growth of the gaming industry and changes to the advertising landscape in recent years have made marketers increasingly conscious of the usage of digital games for advertising. The gaming industry's growth and popularity, which have been propelled by the development of new technologies and the spread of mobile and internet devices, are undoubtedly tied to the expanding usage of digital games as a marketing tactic.

One example of a game that does this is Cyberpunk 2077, which appeals to marketers as well as players by combining elements of a typical social gathering. Marketers view it as an engaging way to deliver advertising messages without upsetting customers [1].

Game marketing has become more and more popular as a marketing tactic in recent years, partly due to the expansion of the gaming industry and shifts in the advertising landscape. Marketers are

allocating more funds for interactive media than for traditional media due to the weak state of the economy and the dwindling readership of print media. Compared to traditional media, interactive tools are thought to be more affordable, quantifiable, and able to evoke a response instantly [2].

It appears that there is a method to get around consumers' aversion to advertising messaging with the entertainment format. The line that traditionally separates advertising from entertainment is blurred by this type of advertising. It combines the two into a single product that is essentially entirely financed by a corporation or brand and intended for distribution as high-quality entertainment material. In light of these considerations, marketers have stepped up their gaming marketing spending after realizing the potential offered by the varied and growing online gaming community. They have also started to take advantage of the transition from advertising to other forms of entertainment. These days, social media, app stores, gaming portals, and branded microsites are all places where consumers may find gaming marketing. The most popular games are available for play on a global scale and are played on tablets, smartphones, PCs, and laptops.

But not every game marketing strategy can be used to illustrate an effective marketing effort. The fact that marketers and marketing agencies are largely unaware of the potential of digital games as a medium for advertising messaging is one of the key causes of this performance discrepancy. In order to build the best possible product for the advertising campaign, game marketing development is a process that necessitates collaboration between the client and the design firm. Sometimes the marketing firm will function as a middleman between the client and the game studio in charge of the design, and other times the client will get in touch with them directly. Nonetheless, a lot of marketers and marketing agencies—even those who specialize in digital marketing—remain ignorant about game design. Most game creators do not know anything about marketing or persuasive techniques. As a result, the potential of digital games as a medium for advertising is underutilized.

In summary, even though digital games have been used for over 30 years to spread advertising messages, the lack of expertise in this field has caused advergame creators to adapt creative tactics from other media, which has not always been successful. This is a result of the participatory nature of digital games. Furthermore, marketing firms that are more focused on spreading advertising messages than making games that entice people to play create a lot of game marketing concepts. Therefore, improving people's knowledge of the ways in which digital games are utilized to spread advertising messages will be beneficial to the advertising game sector as well as pertinent academic study.

This article will examine game marketing from an interdisciplinary perspective, applying theories from the fields of game case studies, brand research, and advertising strategy analysis from a marketing perspective. This interdisciplinary method broadens people's understanding of how businesses function in digital game marketing. This study also looks at current digital game marketing tactics, how they relate to games, and practical applications for them.

2. Case Description of Cyberpunk 2077

2.1. Introduction of Cyberpunk 2077

An endless number of gangs walk the streets of Cyberpunk 2077, an open-world action-adventure role-playing game set in a utopian futuristic society equipped with cyberpunk technology. The Elite rule the City of Darkness. Due to numerous delays, a lack of final product development, and particularly the way the firm handled these problems, the game caused controversy when it was first released. Although the shallowness of the gaming world and its politics has been brought to light by various critical assessments, these matters are outside the purview of this paper [3]. The tabletop role-playing game series Cyberpunk 2020 by Mike Pondsmith, which was officially released by CD Projekt Red (CDPR) in May 2012, is the basis for Cyberpunk 2077. Aside from the environment, the

game's non-linearity and sophisticated RPG systems are its other standout features. The corporation did not engage in significant marketing from 2013 to 2018, with the exception of sporadic bulletins. A comprehensive campaign was not initiated until 2019 [4].

Founded in 2002, CD PROJEKT RED Studio creates and publishes video games for PCs and consoles, including Cyberpunk 2077. The Witcher series has garnered over 1,000 accolades and sold over 65 million copies as of 2021 [5]. More than 20 million copies of Cyberpunk 2077, the first game in the studio's new series, have been sold [6]. Located in Warsaw, CD PROJEKT RED is a North American sales promotion and coordination firm with offices in Los Angeles, Krakow, Wroclaw, and Vancouver as development studios. The global crew of the studio consists of around 700 highly skilled professionals with expertise in production, design, animation, and programming [5].

2.2. Introduction of Customer Groups

Women make up about 28% of those who intend to buy Cyberpunk 2077. Approximately 25% of those who want to purchase Cyberpunk are in the 10–20 age range [7]. Cyberpunk purchasers are more likely to be medium-to-large-spending players when it comes to their gaming budget. Cyberpunk consumers could thus be more open to in-game DLC. Expansion packs for CD Projekt RED's last full-length role-playing game, The Witcher 3, produced a significant revenue increase for the firm during its debut quarter, demonstrating the effectiveness of this model. Both reviewers and fans praised the expansion packs. Additionally, those who plan to buy Cyberpunk see themselves as more "core gamers" and are therefore prepared to shell out more cash on in-game items [7]. When deciding whether to play a game, almost two-thirds of Cyberpunk customers think that the following elements are crucial: discovering the game's universe and plot (79%), developing as a player (76%), doing tasks and reaching objectives (72%), and testing them on a strategic level (67%). The PC-first demographic of Cyberpunk purchasers is reflected in these mechanics, which are entirely in line with classic PC RPG systems, particularly those with compelling tales and objectives [7].

3. PEST Analysis of the Gaming Industry

3.1. Political

A sectoral promotion initiative, to be carried out by the Ministry of Development and Technology in collaboration with the Polish Agency for the Development of Enterprises (PARP) between 2024 and 2029, would bolster the foreign promotion of the Polish video game industry [8].

The third edition of the report on the Polish computer games industry has been jointly released by the Polish Agency for Enterprise Development (PARP) and the Centre for the Development of Creative Industries. This sector has been the fastest-expanding in recent years. The report's objective is to educate readers from other countries about the Polish game development sector by showcasing its potential, advantages, and future growth possibilities.

The video game industry, as well as the media itself, is global, with more than 90% of games produced in Poland being played abroad. The Polish government has taken note of the potential of national branding and has allocated over PLN 300 million (€66.7 million) through an EU-funded program to help small studios get their projects off the ground [8].

The Polish video game industry has matured. It is now up to all stakeholders to translate this recognition and market success into a true national brand that will drive the next phase of development and make Poland synonymous with high-quality digital entertainment.

A perfect combination of innovative ideas, capital market support, and government support means Poland is uniquely positioned.

3.2. Economic

Impact of COVID-19 on the gaming industry: The gaming industry has thrived during the pandemic due to stay-at-home orders, with popular video streaming platforms such as Twitch reporting 3.1 billion hours of content watched in the first quarter of 2020[9]. Microsoft also saw a 130% increase in the number of multiplayer games between March and April. Games launched during the pandemic, such as New Horizons and Doom Eternal, emerged as the best-performing games. CD Projekt strategically launched their flagship game Cyberpunk 2077 during the COVID-19 pandemic, taking advantage of increased sales opportunities.

Tax laws and the economic impact of gaming: Tax laws targeting the gaming industry have had a positive impact on national incomes around the world. The game business, according to the Entertainment Software Association (ESA), directly created \$40.9 billion in 2019, boosted the American economy, and directly employed about 143,045 people. The industry paid about \$12.6 billion in taxes and added \$59.76 billion in value-added growth in 2019 [10]. An estimated \$35.28 billion is the gaming industry's net revenue, which includes \$17.37 billion in direct pay to workers in the video game industry. According to reports, the industry provided \$90.3 billion in direct support in total.

3.3. Social

Although there are objections to the promotion of video games among teenagers due to inappropriate graphics and potentially criminal introductory phonemes in many popular gaming products, there is no doubt that the relationship between the video game industry and gamers is deepening.

With their early gaming experiences and strong sense of nostalgia as adults, Millennials are among the billions of people who love gaming the most worldwide. Because of their affinity for games and their large disposable cash, Millennial gamers are among the most desirable consumer bases for advertisers. The interest in video games among Millennials and Generation Z is fueling the industry's expansion.

The Millennials are the first generation to grow up with extensive exposure to video games. They are just as active now as they were growing up. According to the Millennials to Millennials report, two-thirds of Millennials in the United States play video games on a monthly basis. An estimated 38% of U.S. gamers are between the ages of 18 and 34. Video games are not just the only thing millennials are interested in; they also love watching other people play them. Approximately 71% of Millennial gamers watch gaming video content on YouTube and Twitch [11].

3.4. Technological

Gamers may experience real-life scenarios thanks to augmented reality and motion technology. With the ongoing development of augmented reality and shifts in consumer demands, game technology is advancing to the point where players may now experience real-life gaming [12]. The game business generates realistic representations that customers can see in three dimensions by employing LCD displays, integrated cameras, and video-perspective headset displays [13]. Games like DOTA and Pokemon Go are the benchmark for augmented reality. The Witcher 3, developed by CD Projekt, revolutionized the game industry by fusing motion and augmentation technologies. By utilizing technologies like Unity 5, ARPA, XCode 7, and others, game makers are integrating a realistic viewpoint into the gaming realm.

The user experience is enhanced by artificial intelligence's ability to create responsive, flexible characters that can behave much like humans. By fusing virtual, augmented, and mixed reality, the game industry will be able to create artificial intelligence in the future. Most video games are powered by artificial intelligence or other such applications. Enterprises mainly use artificial intelligence in

games to provide users with realistic gaming experiences on virtual platforms, thereby helping to increase players' interest and satisfy their needs in the long term. Artificial intelligence uses stored information to bring characters to life and perform basic actions [14]. The data collected through artificial intelligence is then used to create virtual game environments, including scenarios, motivations, and actions assigned to game characters, which become increasingly real and natural over time.

4. Cyberpunk 2077 Internet Marketing Behavior Analysis

With the Internet as the theme and market change as the orientation, network marketing uses modern network technology and marketing methods to provide services for network users, expand market share, create greater brand influence, and provide more efficient services for target customers. And by improving customer satisfaction, the ultimate goal of enterprise profit is realized. Its marketing advantages include cost advantages, easy access to decision-making information, a better user experience, interactive personalized service, unlimited time and space (365 days and 24 hours), and accurate positioning for targeted strategies.

4.1. Game Content Marketing

CD Projekt Red's most significant and effective content marketing technique was the Cyberpunk 2077 trailers. The Polish developer displayed the various game features in weekly clips that were shown during events they dubbed Night Wire. The ability for players to select a "life path" that significantly alters the course and resolution of the story was demonstrated in the film Night Wire: Episode 2 [15]. The player character's origin is a "life path." There are three pathways available to the player: Corpo, Street Kid, and Nomad. It seems clear from viewing the teaser that each path will provide a distinct experience that sets it apart from the others. Additional dialogue lines were also available from the Lifepaths, although selecting such lines had no bearing on the gameplay as a whole.

The same video format was used a few weeks later in Night Wire: Episode 4 [15]. There was a trailer for the episode that included cars and clothing from the game. The teaser for Episode 4 demonstrated to the players their ability to design a wide range of vehicles that they may buy. The teaser for Episode 4 also discussed how the player's experience might be impacted by fashion. According to the clip, the player's clothing would have an effect on how the AI of the game functions. Depending on what they are wearing, a player may encounter friendly or hostile gang members. The excitement that fans felt for the game was substantially increased by these trailers, which also created an intriguing picture of the gameplay.

Influencer marketing was employed by CD Projekt Red prior to Cyberpunk 2077's release, whereby early copies of the game were given to YouTubers and streamers. Only the PC version was included in the copies. The majority of these broadcasters and YouTubers gave the game good reviews.

One well-known instance is the review provided by IGN, a YouTuber that focuses on producing material on the newest games. Over 4.5 million people watched his review of Cyberpunk 2077 on YouTube, with over 115,000 of them saying they enjoyed it. The fact that Hollywood celebrity Keanu Reeves was approached by CD Projekt Red to not only promote the game but also have a significant role in its plot sets it apart from other studios. Because of how well-known Keanu Reeves is on the internet, both personally and in relation to the fictitious roles he has portrayed in the past, the company's choice to engage influencers is incredibly effective. The game advertising sector may greatly benefit from Keanu Reeves's influence and social media fame through the use of memes.

4.2. Cross-border Joint Marketing of Cyberpunk 2077

Many companies are currently using cross-border marketing as a marketing strategy because it creates a fresh user experience by combining various lifestyles and aesthetics. Cross-border marketing enables partners that initially seem unrelated to penetrate and integrate with each other, giving users a new experience and creating richer brand associations. This leads to heterogeneous traffic and thematic conflicts and helps brands create a more three-dimensional and comprehensive image awareness. CD PROJEKT RED has achieved remarkable success in cross-border marketing strategies that effectively interact with many different industries.

An impressive example of cross-border cooperation is that on November 2, 2020, OnePlus Mobile, the pioneer mobile phone brand of China's well-known communications group, officially released the sincerity of OnePlus and CD PROJEKT RED's joint deep customization at the offline tasting meeting for the OnePlus 8T Cyberpunk 2077 limited edition mobile phone and announced the promotional video. The entire body of the phone is custom-packaged with the sci-fi elements of the game. This limited-edition phone allows gamers to still enjoy the game world in the real world.

One of the key marketing strategies employed for Cyberpunk 2077 is the creation of an extensive range of merchandise and accessories tailored to appeal to fans of the game. The promotional material encourages consumers to immerse themselves in the cyberpunk universe even before the game's release, effectively building hype and anticipation. By offering a diverse selection of products, from official guides to graphic novels and collectible figurines, the marketing team targets various segments of the gaming community, catering to different interests and preferences. Each item serves as a tangible reminder of the game's impending launch, fostering a sense of excitement and engagement among potential players. Additionally, the inclusion of branded merchandise such as mousepads and gaming chairs allows fans to integrate their passion for Cyberpunk 2077 into their daily lives, further solidifying their connection to the franchise. Overall, this marketing approach not only generates additional revenue streams for the game but also reinforces brand loyalty and cultivates a dedicated fan base eagerly awaiting the game's release.

5. SWOT Analysis for the Company's Operation Environment

5.1. Strength

The company's 30 years of rapid growth and brand influence reach players of all cultures and genders around the world in the rapidly evolving online and gaming industries. This is a testament to the company's strong product quality and superior execution.

Two basic concepts form the foundation of CD PROJEKT Capital Group's corporate philosophy: a steadfast commitment to financial and creative freedom and an unwavering adherence to quality across the entire video game development and service delivery process [16]. The Board thinks that adhering to these principles is essential to succeeding in the fiercely competitive worldwide digital entertainment sector.

The emphasis CD PROJEKT RED places on controlling every aspect of the game development and marketing process—from initial design to technical solutions, publishing campaigns, promotion and distribution, all the way down to communication relationships—sets it apart from other significant video game developers and publishers [16]. Operating significant publishing and online gaming platforms as a component of a large, player-centric ecosystem that is user-friendly is how this strategy is realized.

By creating cutting-edge and innovative entertainment experiences, coupled with a proprietary distribution platform, the company enables gamers around the world to access a wide range of releases without being hampered by burdensome DRM restrictions.

To maintain the trust and admiration of the gaming community, the company is unwaveringly committed to a policy of transparent, open, and honest communications. By demonstrating dedication and ongoing personal involvement, the company has earned the respect of its clients, reflecting their shared passion for electronic entertainment in both their professional and personal lives.

5.2. Weakness

The company's operating costs offset market revenue year by year, and it is losing the enthusiasm of investors in the investment market. These indicate problems both internal and external to the company, causing the company to post huge losses on its financial statements. Reports indicate that the fall in CD Projekt's stock price caused Cyberpunk studio to lose \$1 billion. According to Bloomberg, in December 2020, the four founders' 34% stake was reduced to \$3 billion [15]. The stock price decline has been attributed not only to bugs and glitches in the game, but also to performance issues with previous generation consoles, the PlayStation 4 and Xbox One. Although Cyberpunk had an initial Metacritic score of 91, the initial score did not meet shareholder expectations.

5.3. Threats

Growing risks from malware and cyberattacks in the gaming sector: Hackers and virus assaults have a devastating effect on the gaming sector, costing it money and client faith. These odd interruptions are making things difficult for dedicated players. Business sources claim that from July 2018 to June 2020, the gaming business saw 100 billion attacks. The infrastructure of CD Projekt was attacked with ransomware, causing the firm to postpone the delivery of a critical patch for their main game, Cyberpunk 2077. Hackers were also able to access the personal information of the employees. Organizations are very concerned about data breaches and are making great efforts to strengthen their infrastructure, backups, and security measures.

There are a ton of counterfeit versions available for purchase:

As ancient as the gaming business itself, piracy is a major issue that has to be addressed. On a global scale, piracy is affecting new items throughout their initial sales window. The most well-known scene-stealing game, CD Projekt, released a statement claiming that while the official edition of The Witcher 2 has only sold a meager 1 million copies, pirated versions of the game have sold up to 4.5 million copies worldwide [17]. Millions of consumers now find it simple to get unauthorized versions from pirate repositories like Torrents and Pirates Bay. To put things in perspective, CD Projekt has made efforts to raise the code's security level and

Competition in the gaming industry is becoming increasingly fierce: Since 2009, the online gaming market has seen phenomenal growth. The gaming industry is expected to reach approximately \$196 billion in revenue by 2022 [18]. Due to the popularity of the gaming industry, technology giants such as Google, Facebook and Apple are planning to enter the industry. The increase in the use of the Internet and smartphones has helped gaming companies attract more customers, especially millennials [19]. The company is developing online games that are more compatible with smartphones. Gaming websites are becoming increasingly mobile-responsive as they can be accessed by different brands of tablets and smartphones such as iPhone and Android.

5.4. Opportunities

There is a growing need from consumers for a variety of gaming content. The global gaming industry is predicted to develop at a compound annual growth rate of 12% between 2020 and 2025 [20]. The availability and increasing popularity of multi-function gaming consoles is helping the global video games market to boom. Currently, PlayStation 5 is the best plug-and-play gaming platform, with 4K,

HDR 10, and an exclusive game library. In the future, the PlayStation 5 is expected to bring more revenue to the video game console segment.

The availability of skilled labor in software engineering and game design is driving the emergence of startups in the gaming industry: the AR/VR segment of gaming is still growing and continues the growth trend from 2018. According to Indeed, Charlotte, NC, San Jose, CA, and Raleigh are the areas with the most AR/VR jobs [20]. Charlotte accounts for 9.5% of national AR/VR job openings, the highest concentration of local job openings. Esports is also one of the growing segments in video game consoles, with revenue expected to reach \$2.7 billion during the forecast period 2019-2025, growing at a CAGR of over 16%. In addition to competing against each other, these competitive video gamers have grown into a full-scale spectator sport. Ratings are expected to reach around 70% by 2023, which will significantly expand future employment opportunities [21].

6. Conclusion

The gaming industry's advertising landscape is evolving rapidly, driven by advances in technology, changes in consumer behavior, and the growing importance of digital media. The case of Cyberpunk 2077 exemplifies the intricate relationship between marketing strategy and game development, illustrating the successes and challenges of this dynamic field.

The marketing strategy used by CD Projekt Red for Cyberpunk 2077 emphasizes the importance of content marketing and influencer marketing in promoting video games. By using engaging trailers, the company effectively built anticipation and excitement among potential players, using influencers like Keanu Reeves to increase visibility and credibility. These strategies not only created a buzz but also contributed to the game's initial success, selling millions of copies.

However, the case of Cyberpunk 2077 also highlights the risks and pitfalls of marketing in the games industry. Despite initial hype, the game faced significant backlash upon release due to technical issues and failing to meet expectations. It is a cautionary tale about the importance of aligning marketing promises with actual product experiences and effectively managing consumer expectations.

Additionally, a SWOT analysis of CD Projekt Red's operating environment highlights the broader challenges facing the gaming industry, including cybersecurity threats, piracy issues, and increased competition. These external factors pose significant risks to companies operating in the gaming industry and emphasize the importance of strategic planning and risk management.

Looking ahead, the gaming industry will continue to offer tremendous opportunities for growth and innovation. As demand for diverse gaming content continues to grow and advances in technologies such as augmented reality and artificial intelligence shape gaming experiences, companies have opportunities to capitalize on emerging trends and cater to changing consumer preferences.

In summary, game marketing is a dynamic and multifaceted discipline that requires a nuanced understanding of game culture and marketing principles. By taking a holistic approach that integrates insights from gaming research, brand management, and advertising strategy, companies can navigate the complexities of the gaming industry landscape and succeed in an increasingly competitive market.

References

- [1] Hana, T.D.L. (2019). *Digital Gaming and the Advertising Landscape*. Amsterdam University Press. Amsterdam, 16.
- [2] Ghose, A., Yang, S. (2009). *Direct and Interactive Marketing*. *Marketing Science*, 28(3), 531-538.
- [3] Siuda, P. (2023). *Broken Promises Marketing: Relations, Communication Strategies, and Ethics of Video Game Journalists and Developers: The Case of Cyberpunk 2077*.
- [4] Charles, D.K. (2003). *Enhancing Gameplay: Challenges for Artificial Intelligence in Digital Games*. *Digital Games Research Conference 2003*, University of Utrecht, The Netherlands.

- [5] CD Projekt Group. (2022). *CD Projekt Group Long-Term Strategic Growth Outlook*. CD Projekt. Viewed by 24th March. 2024, www.cdprojekt.com/en/wp-content/uploads-en/2022/10/cd-projekt-group-long-term-strategic-growth-outlook.pdf
- [6] CD Projekt. (2023). *CD Projekt IR Factsheet*. Viewed by 24th March. 2024, <https://www.cdprojekt.com/en/wp-content/uploads-en/2023/09/en-cdpir-factsheet-09-2023.pdf>
- [7] Merilainen, M. (2022). *Young People's Engagement with Digital Gaming Cultures – Validating and Developing the Digital Gaming Relationship Theory*. *Entertainment Computing*, 4.
- [8] Polish Agency for Enterprise Development. *The Game Industry Poland 2023*. (2023). chrome-extension://mhnlakgilnojmhinhkckjpnpcpbhabphi/pages/pdf/web/viewer.html?file=https%3A%2F%2Fen.parp.gov.pl%2Fstorage%2Fpublications%2Fpdf%2FThe_Game_Industry_Poland_2023_12_07.pdf
- [9] Donoghue, J.D., Heras, B.D.L., Li, O., Middleton, J., Jung, M.K. (2023). *Gaming in Pandemic Times: An International Survey Assessing the Effects of COVID-19 Lockdowns on Young Video Gamers' Health*. *Health Behavior, Chronic Disease and Health Promotion*, 2.
- [10] Entertainment Software Association. (2019). *Video Games in the 21st Century: 2020 Economic Impact Report*. <https://www.thesa.com/wp-content/uploads/2019/02/Video-Games-in-the-21st-Century-2020-Economic-Impact-Report-Final.pdf>
- [11] Muriel, D., Crawford, G. (2018). *Video Games as Culture: Considering the Role and Importance of Video Games in Contemporary Society*, 9-10.
- [12] Liarokapis, F. (2006). *An Exploration from Virtual to Augmented Reality Gaming*. *Simulation & Gaming*.
- [13] Duan, G., Han, M., Zhao, W., Dong, T., Xu, T. (2018). *Augmented Reality Technology and Its Game Application Research*. In *Proceedings of the 3rd International Conference on Automation, Mechanical Control and Computational Engineering (AMCCE 2018)*, 1-5.
- [14] Headleand, C.J., Henshall, G., Teahan, W.J. (2015). *The Influence of Virtual Reality on the Perception of Artificial Intelligence Characters in Games*. Bangor University. Wales. *International Conference on Innovative Techniques and Applications of Artificial Intelligence*.
- [15] Krasuski, K. (2020). *CD Projekt Founders Lose \$1 Billion as Game Bugs Hurt Reputation*. Bloomberg.
- [16] CD Projekt. *Business Model*. Viewed by 24th March, 2024, www.cdprojekt.com/en/capital-group/business-model/
- [17] Pearson, D. (2011). *CD Projekt Red: Witcher 2 Piracy Estimated at 4.5m Copies*. GamesIndustry.biz. <https://www.gamesindustry.biz/cd-projekt-red-witcher-2-piracy-estimated-at-4-5m-copies>
- [18] Shaw, S., Quattri, S., Whitt, J., Chirino, J. (2020). *The Global Gaming Industry Takes Center Stage*. Morgan Stanley Investment Management, 3.
- [19] Research and Markets. (2024). *Gaming Market Share Analysis - Industry Trends*. https://www.researchandmarkets.com/reports/4845961/gaming-market-share-analysis-industry-trends?utm_source=dynamic&utm_medium=GNOM&utm_code=v6fq3
- [20] Gina, B. (2018). *Gaming the Stage*. University of Michigan Press, Michigan, 67.
- [21] Reitman, J. G., Anderson-Coto, M. J., Wu, M., Lee, J. S., Steinkuehler, C. (2020). *Esports Research: A Literature Review*. *Games and Culture*, 15(1), 32-50.