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Alena Khonych

# Ethical and legal dimensions of microtransactions in videogames

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<p>Nowadays, microtransactions have become a powerful money generating tool in the gaming industry. At the same time, the topic of microtransactions began to concern consumers, mass media and even authorities on a governmental level. Different aspects of microtransactions are being discussed, among these are legal and ethical dimensions of microtransactions.</p> <p>The paper analyses the phenomenon of microtransactions, traces its roots and focuses on the possible effects on the consumers of gaming industry. There are many aspects that should be taken into consideration while discussing this topic. It also became obvious, that some sort of a solution to the growing problem needs to be found.</p> <p>The results indicate that microtransactions are an important and powerful tool revenue generating for gaming companies. It also became obvious that certain types of microtransactions started to resemble an unsupervised form of gambling. The possible solution to the situation would be first recognizing these microtransactions as gambling and then implementing tools to officially regulate them. Although some countries managed to achieve some results, many others are still struggling trying to protect the consumers.</p>	
Keywords	Microtransactions, videogames, game industry, gambling

# Contents

1	Introduction	1
1.1	The topic of the thesis and its objectives	1
1.2	Scope and structure of the thesis	2
2	Background	4
2.1	What is microtransactions	4
2.2	History of microtransactions	4
3	Literature review	7
3.1	Psychology of gambling	7
3.1.1	Gambling addiction	7
3.1.2	Neurobiological evidence of gambling addiction	8
3.1.3	Gender distribution in gambling	9
3.1.4	Similarities and differences between gambling disorder and other addictions	10
3.1.5	Adolescent gambling problems	12
4	Microtransactions as new money generating model	14
4.1	Online and season passes	14
4.2	Loot boxes or Random Chance Purchases	17
5	Ethical and legal issues	19
5.1	The growing issues with microtransactions	19
5.2	UK parliament investigation report on loot boxes	21
5.2.1	Gambling-like behaviours	23
5.2.2	Loot boxes	25
6	Analysis and Discussion	28
7	Conclusion	29
	References	31

## Appendices

Appendix 1. Young people and gambling

### List of Figures and Tables

Figure 1. Comparison of profit from microtransactions and single game copy sales

Figure 2. Age and gender of subjects with gambling disorder

Figure 3. Comparison between gambling disorder and other addictions

Figure 4. Gambling participation by age

Figure 5. Uplay Passport System demands extra payment to unlock online mode in the game

Figure 6. Nintendo offers to purchase expansions and DLC separately from the original game

Figure 7. Hearthstone packs open random value cards, often already owned copies

Figure 8. Claimed hours per week spent online

Figure 9. Parental concern about aspects of their child's internet use

Figure 10. People who spend money betting on eSports or purchasing in-game items

Figure 11. Age-ratings of games featuring loot boxes

Figure 12. Number of games featuring "cash out"

## Glossary

CCG	Collectible Card Games
DLC	Downloadable Content
Dopamine	an organic chemical that functions as hormone and plays a major role in reward-motivated behaviour
DSM-5	Diagnostic and Statistical Manual of Mental Disorders
EA	Electronic Arts Inc, an American game company
Expansion	Extra content for games
MMORPG	Massively Multiplayer Online Role Playing Game
Ofcom	The Office of Communications, the UK authority for broadcasting, telecommunications and postal industries
PEGI	Pan European Game Information, video game content rating system
Skins	Popular example of a virtual in-game item. They provide cosmetic alterations to a player's weapons, avatar or equipment used within the game
Ventral Striatum	is associated with limbic system and is a vital part for decision making and reward-related behavior

# 1 Introduction

## 1.1 The topic of the thesis and its objectives

Microtransactions has become an inseparable part of modern videogames - a new means of benefits for game companies and a burning issue for gamers. The fact is that companies finally found a goldmine, something that brings much more revenue than sales from traditional retail methods. They first started with mobile games which were originally free-to-play and thus were attracting gamers, when later people discovered that there is an online shop in the game, that could make your gaming experience easier and more entertaining, you just need to spend some, on the first sight, trivial amount of a couple of euros. Thus, people who are having hard times with games find it hard to resist the promise of immediate gratification, so they just spend more and more. Eventually, microtransactions have evolved into a form of gambling, which have drawn attention on a governmental level to certain game companies. Some countries' authorities started contemplating the idea of prohibiting the video games with excessive level of microtransactions in order to protect underage young people from being involved into these gambling activities.

Finally, the extent to which certain game companies have taken microtransactions in their products have outraged even loyal consumers, who were trying hard to justify these companies' actions before by saying that "games cost a lot of money to make" and being adamant about supporting developers. Various new methods of tricking and luring people have been invented, even the games themselves have become designed in a way to allow the and flourish the existence of microtransactions. While some people are still trying to justify actions of the game producers, others are very unhappy with situation and claim that the microtransactions are harming the gaming industry, creating maelstrom of lies and wasted money.

The thesis' purpose was to academically elaborate the emerged phenomenon of microtransactions. To see, to what extent microtransactions are more efficient profit-wise to game companies over traditional game copy sales. The thesis will try to demonstrate, why companies are reserving to microtransactions and why it is unlikely companies will abandon this method of game monetization, despite of arising legal and moral issues around it.

Accordingly, the thesis tasks are listed below:

1. To define and analyse the phenomenon of microtransactions
2. To explore the theory supporting and explaining microtransactions
3. To feature a case study to illustrate and testify theory in practice

## 1.2 Scope and structure of the thesis

The scope of the thesis is to conduct an analysis of microtransactions as new business model. The microtransactions have become an inseparable part of modern gaming industry, and has turned to be, to some extent, the pillar, on which the game industry is resting on. With the statements mentioned above, the thesis studies the context and features of modern microtransaction phenomenon and issues it brings with it.

The thesis has five main parts: the introduction, the background information and history of microtransactions, literature review, microtransactions as new business model, company cases and discussion. The introduction states the research topic, its significance, objectives, which aims at helping to understand the relevance of this research. The background information is given to the reader in order to familiarize with possibly unknown terms and give more insight as where the problem has first appeared. The literature review provides the theoretical knowledge from relevant literature, that gives base and structure to the thesis topic and research. In the following chapter microtransactions phenomenon is being

further discussed and explained. It provides with more in-depths knowledge about the types and specifics of microtransactions. In the next section, the thesis showcases the ongoing issue that microtransactions model is facing and illustrates the importance of the situation around it. The last chapter discusses findings and further evaluation of the thesis, as well as giving recommendations and further possible study.



## 2 Background

### 2.1 What is microtransactions

Microtransaction is a very small financial transaction conducted online. (Lexico, 2019). Generally speaking, a microtransactions is anything a consumer pays extra for in a video game, excluding the purchase of that game.

Microtransactions can include purchases of such in-game goods as cosmetical items, that change appearance of characters and customize weapons and random loot bundles, that give a player various items in game without being able to choose them. Other in-game items can give a player advantage over the others and can only be purchased through in-game shop with real money. Initially, these in-game purchases were a part of so called “freemium” games (those, that did not require the game client purchase). Because those games were originally free-to-play, users did not feel discontent towards microtransactions. However, as the situation was progressing, consumers started to understand that the game is simply not possible to play without small payments. That was how the understanding came to the many, that free-to-play games are in truth not free at all.

### 2.2 History of microtransactions

According to a definition, microtransactions is a business model where users can purchase virtual goods via micropayments (Wikipedia, 2019). Microtransactions are often used in free-to-play games to provide a revenue source for the developers. While microtransactions are a staple of the mobile app market, they have also become available on traditional computer platforms such as Valve's Steam platform as well as console gaming.

The tradition of video game monetization can be traced back to the monetization of real-life games, before the existence of the computer. A game is usually constructed with players, tools and rules. The tools for the game were made by

skilled craftsman, usually with valuable materials, in the history. Thus, selling game tools for money became an understandable business long before the video games.

The history of video games starts in the seventies, when the arcade video games have become popular worldwide. The first arcade game that introduced a concept of microtransactions was called Periscope, which was a coin-operated machine and cost a quarter per play. Players had to insert coins to play for certain time or certain lives. This can be classified as a type of microtransaction, and was highly successful during the golden years of arcade games. Another very popular and influential arcade game, Taito's Space Invaders in 1978 was reported to cause a shortage of 100-yen coins in Japan. When a company Namco released Pac-Man in Japan in 1980, it has had a huge success from its original release to the present day. Later, it came as one of the highest revenue video games of all time, that generated more than \$2.5 billion in quarters (Ultimatepopculture, 2019).

Later on, the computer technology started rapidly developing, specifically home computers became main competitors of the gaming machines. The home computers started to prove their gaming capability immediately after they were introduced to the public, since they were able to run multiple game programs. Unlike with arcade machine, people were able to switch between games and play at their homes. Later, gaming consoles appeared on the market, which were more powerful than many computers and could provide best gaming experience at the time.

Since the year 2000, the game monetization was affected by the booming of the e-commerce, as well as hardware, software and other information technology developments. All kinds of online games and multiplayer games were connected through the faster Internet. The new game genre MMORPG created the subscription model a profitable way to support the game developers. Many browser games became free to play which attracted a lot of players.

Then the age of smartphones began. Standardization of mobile platforms allowed easy purchases through emerged app stores, brought on initially by the iPhone

and followed by the Android and other competitors. These events resulted in microtransactions spreading like wildfire and, consequently, a creation of indirect monetization. After the social network became a big part of the Internet, more games started to take this platform as a way to sell or promote the games.

Another company, Microsoft, envisioned the ability to buy digital add-ons for Xbox 360 console games through the Xbox Live Marketplace, allowing players to purchase specific content they wanted at a low price of a couple of dollars rather than having to buy a more expensive complete expansion.

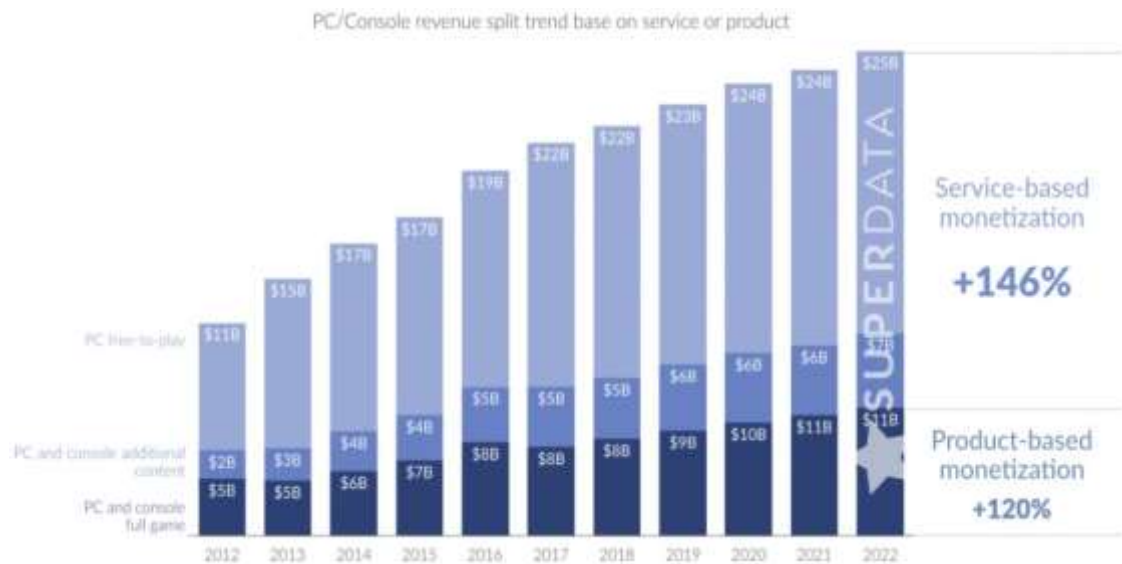


Figure 1 Comparison of profit from microtransactions and single game copy sales (Wholesgame, 2017)

Further, in 2010s, game monetization models have grown into a mature market. When the competition for player attention became essential, game production moved from focusing purely on monetization models to focus on things such as player retention and daily active users. Analysts found out that players put more value in games that provided a regular stream of new content. Thus, developers came up with the approach called “games as service”. This model helps to assure a long revenue and also allows to produce fewer games and reduce development costs while still providing new content to players, with the potential to profit twice as fast from the traditional model. This approach also helps to prevent games

companies from impacts of discounts and sales on digital game redemption keys from third-party sellers by requiring additional purchase of content as part of their services to gamers.

### **3 Literature review**

#### **3.1 Psychology of gambling**

In order to emphasize how important, the problem of gambling is, it is vital to mention the main problem area of gambling. Even though gambling is considered a social and recreational activity, in some cases it can become an addictive behavior (Cavanna A, 2012). Addictive behavior, in turn, sometimes leads to addictive disorders, which will be the key focus in this chapter.

##### **3.1.1 Gambling addiction**

In order to define addictive disorders, we can look at current classification systems, neurobiological findings and the intuition that structure both clinical and biological research. Andreas Heinz in his work *Gambling Disorder* points out that gambling addictions has all the characteristics of, for instance, substance-related addictions. It has such similarities as the development of tolerance to the effects of addiction, the manifestation of withdrawal symptoms, strong craving and reduced control over addiction.

DSM-5 was the first classification system to classify pathological gambling as a disorder of impulse control (Heinz A, 2019). The concept of substance-related addictions has been transferred to the gambling disorder. It showed great similarities, such as tolerance development, increasing amount of money required to satisfy the gambler's desire to participate in the game, withdrawal symptoms, such as restlessness and dysphoria when gambling is interrupted, craving and

large amount of time dedicated to the addiction and unsuccessful attempts to control or stop gambling (Heinz A, 2019).

Current classification system claim that all symptoms are to be treated equal and that the presence or absence of two or more symptoms fulfilling the criteria listed above suffices to diagnose an addiction. (Heinz A, 2019)

The DSM-5 states that gambling disorder is chronic and deteriorating, it is a progressive, multistage illness that begins with a winning phase, following by a losing phase, and, finally, a desperation phase. (Heinz A, 2019) Desperation phase is describes as the uncontrollable spiraling of losing and chasing of losses. It follows by a phase of fantasies of escape and thoughts of suicide. (Heinz A, 2019) It was found that, while most had made an effort to quit or reduce their gambling, over 80% were still gambling problematically, and 34% had a current mood disorder. (Heinz A, 2019)

Data also suggest that gambling disorder has a natural ebb and flow and tends to improve or, in some cases, remit. The oscillation of gambling behavior in the relative absence of formal treatment suggests that individual and societal factors come into play. The data also suggest that those with comorbid disorders and lack of social support do worse. (Heinz A, 2019) Thus, the gambling disorder, in certain cases, can negate itself with time and support from the surrounding community or stay at a constant level without degradation.

### 3.1.2 Neurobiological evidence of gambling addiction

There has been a study related to drug craving and aspects of loss control associated with dopamine dysfunction in the brain due to so-called reward system. It is quite plausible that certain gambles and other addictive behaviors repetitively and unphysiologically strongly activate dopamine release. (Heinz A, 2019) This study directly points that gambling affects the brain function the same way that, for instance, drug-related substances do. Furthermore, it stated that compensatory downregulation of dopamine receptors in the ventral striatum and blunting of

functional activation of the brain area elicited by non-addictive reward-indicating cues has repeatedly been observed. (Heinz A, 2019) Thus, we can see that gambling disorder affects the decision making and creates an addiction.

### 3.1.3 Gender distribution in gambling

This chapter is going to show the prevalence of gender among gamblers if there one. Approximately 4-7% of the adult US general population develops problematic gambling behavior (Heinz A, 2019). It is important to point out that in the North American culture gambling is viewed as a normative behavior. (Heinz A, 2019)

Problem gambling and gambling disorder have been reported wherever gambling is available (Heinz A, 2019). The frequency of gambling disorder may be even higher among adolescents with a range up to 8% and college students with rates up to 14%. Among persons 18-21 years of age, the prevalence ranges as high as 14.4% (Heinz A, 2019).

The prevalence of gambling disorder is considerably higher in men than in women. Surveys and clinical data suggest that rates in men are nearly two or three times than for women. The disorder has a later age at onset in women in whom the disorder progresses more rapidly. (Heinz A, 2019)

The Figure 2 below indicates that at a younger age men are more susceptible to gambling than women. However, women are more prone to receiving a gambling disorder at an older age, and a more rapidly growing severity.

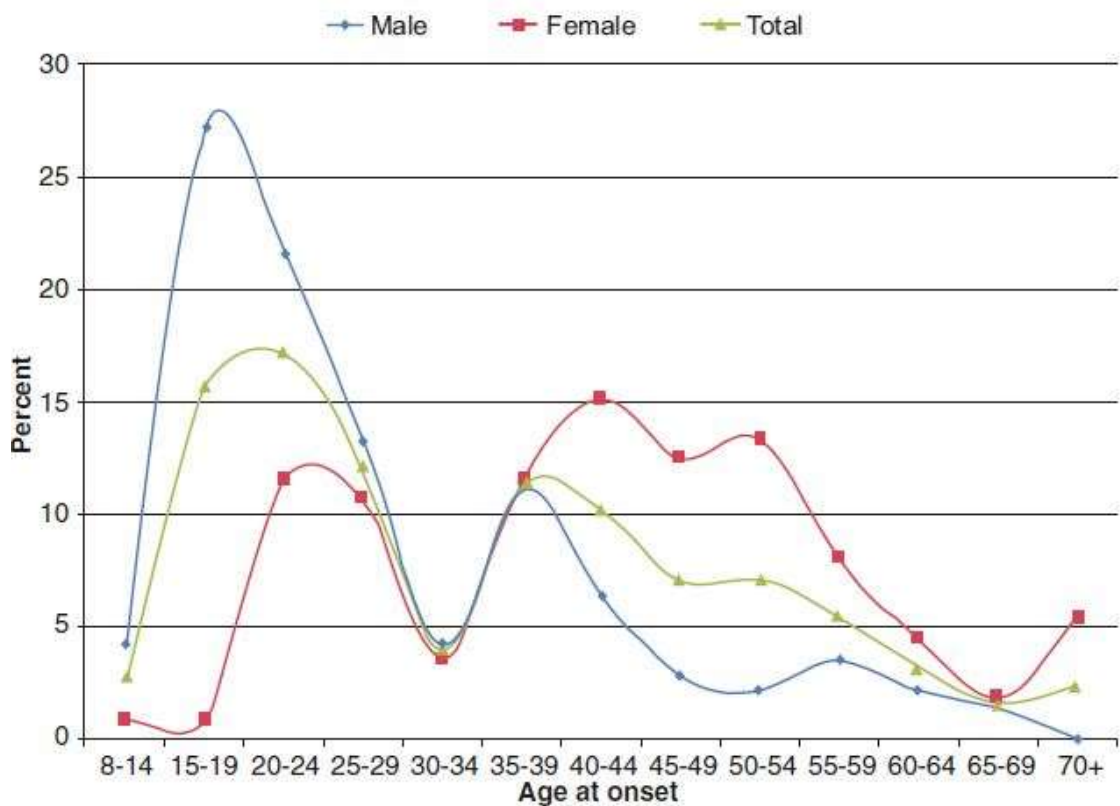


Figure 1. Age and gender of subjects with gambling disorder (Heinz A, 2019)

### 3.1.4 Similarities and differences between gambling disorder and other addictions

A central characteristic of behavioural addictions is the failure to resist an impulse, drive or temptation to perform an act that is harmful to the person or to others (Heinz A, 2019). Thus, normal behaviors, that are viewed as pleasant, such eating, shopping, surfing in the internet or gambling may form a disorder if done excessively. Specifically, it becomes a disorder when an individual loses the ability to control their behavior.

Internet users can show addiction/like behaviors when it comes to different forms or contents such as gaming, use of social media, gambling, etc. However, Internet disorder is not yet a formal disorder in common diagnostic systems. (Heinz A, 2019)

On the other hand, diagnostic criteria for Internet gaming disorder share similarities with those outlined for gambling disorder. These criteria include preoccupation or obsession with Internet games, withdrawal symptoms, tolerance, unsuccessful attempts to stop or control playing Internet games, loss of interest in other life activities, continued use despite negative consequences, lying about the extent of the problem and playing Internet games as a way to relieve anxiety or guilt. (Heinz A, 2019)

It has been found out that the majority of addicted Internet users are males at a younger age with higher family income. (Heinz A, 2019) The Figure 3 below also indicates that males are more susceptible to different kinds of addictive behaviors. It also shows that most disorders have common symptoms. The way these disorders affect people are quite similar between each other, and include depression, anxiety and lack of control. Additionally, all these disorders have in common impulsive behavior of the subjects.



	Gambling disorder	Internet gaming disorder	Compulsive buying disorder	Compulsive sexual behavior
Diagnostic criteria	Great overlap with criteria for substance use disorder	Great overlap with criteria for substance use disorder	Great overlap with criteria for substance use disorder	Great overlap with criteria for substance use disorder
Gender	More male	More male	More female	More male
Main comorbidities (Axis I)	Substance use disorders, depression, anxiety disorders	Substance use disorders, depression, anxiety disorders, attention deficit hyperactivity disorder	Anxiety disorders, substance use disorders, eating disorders, disorders of impulse control	Depression, anxiety disorders, substance use disorders, compulsive buying, gambling disorder
Main family history of psychiatric disorders	Substance use disorders, depression, anxiety disorders, gambling disorder, compulsive buying	Not known	Depression, substance use disorders, gambling disorder	Substance use disorders, compulsive sexual behavior, gambling disorder, eating disorder
Altered impulsivity	Yes	Yes	Yes	Yes
Altered reward processing	Yes	Yes	Yes	Yes

Figure 2. Comparison between gambling disorder and other addictions (Heinz A, 2019)

### 3.1.5 Adolescent gambling problems

In spite of the fact that almost all jurisdictions have legislative statutes prohibiting children and adolescents from engaging in regulated form of gambling, many young people continue to be actively engaged in both regulated and non/regulated forms of gambling (Heinz A, 2019). As it was stated earlier, gambling is generally socially acceptable and positively advertised, which leads to its increasing access among adolescents.

Typical forms of gambling among teens include card playing for money, sports wagering, dice, board games, betting between peers or purchasing lottery tickets.

(Heinz A, 2019) Below Figure 4 illustrates the age of young people and type of gambling they have been involved into.



Figure 3. Gambling participation by age (gamblingcommissionUK, 2017)

Youth gambling is similar to adult gambling and range from occasional, recreational gambling to disordered gambling. Young people's gambling behaviors may as well result in severe psychosocial, behavioral, economic, academic, interpersonal, mental health and legal difficulties. (Heinz A, 2019)

According to statistics, from 60 to 80% of adolescents report having engaged in some form of gambling during. 2% and 8% of adolescents report experiencing serious gambling problems and 10-15% are being at risk for the development of a gaming problem. (Heinz A, 2019) There is also a substantial evidence to suggest that adolescent prevalence rates of disordered gambling are considerably higher than that of adults. (Heinz A, 2019)

## 4 Microtransactions as new money generating model

### 4.1 Online and season passes

Something needed to be done about the trend, and Electronic Arts was the company who came up with an idea about how to fix the problem, or at least lessen the perceived blow. For the new game releases, the company started offering a deal, where you buy a game and get a code that would unlock new outfits, characters, or items. That was supposed to discourage people from buying used copies, since they would not provide these items. The company did not stop on that and finally invented the expansion of Project Ten Dollar which is now known as the Online Pass.

New games started coming out with a single-use code inside the package. The difference was inputting the code wouldn't unlock extra content, it would unlock previously-standard features. Tiger Woods PGA Tour 11 was the first game with the system, requiring the online pass code to unlock online team play and other online modes. The pass was offered that year for other sports simulators. Buying any of those games second-hand meant having to pay \$10 for a new pass to unlock the online play (Williams M, 2017).

Soon other companies realized the benefits of the EA idea, and adopted the Online Pass system. Ubisoft opened up the Uplay Passport system, locking out players of online play if they did not have the single-use code. The trend was followed by such companies as Activision, Warner Bros, THQ, even though it was heavily criticized by online players. Thus, players who wanted to sell the games they did not play anymore, were locked out by the codes and passwords.

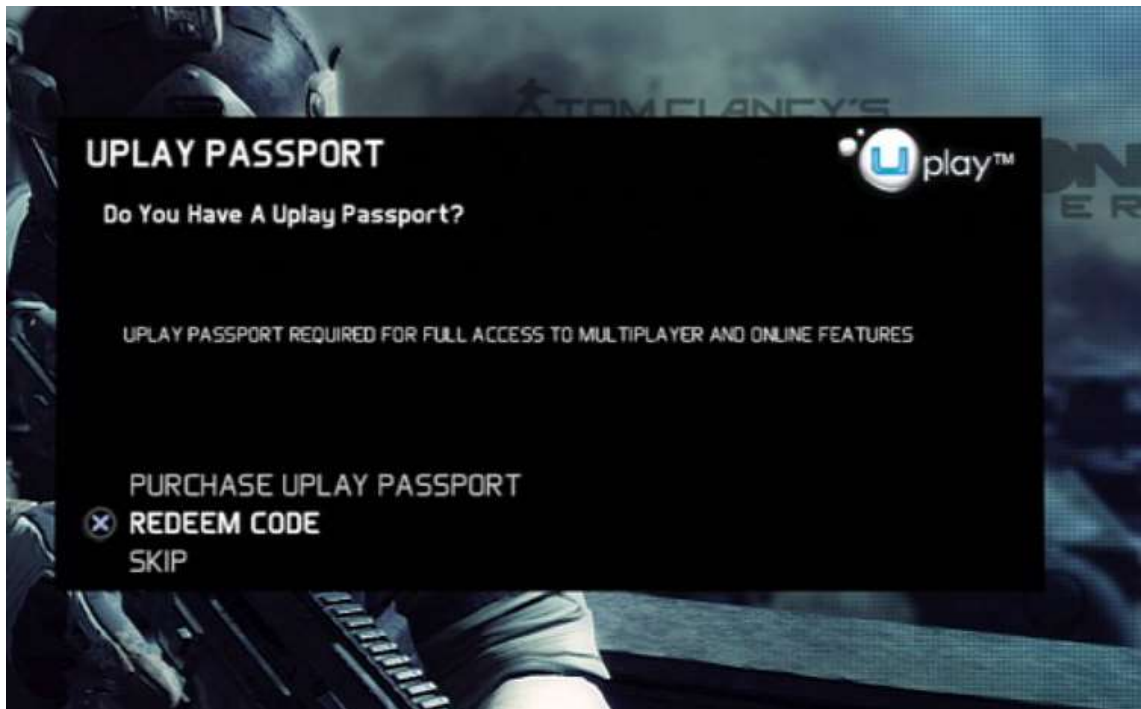


Figure 4. Uplay Passport System demands extra payment to unlock online mode in the game (Usgamer, 2017)

The Online Passes did not exist for too long and have been replaced by season passes, which were created by Rockstar games. In their products the company suggested the access to yet not existing but planned downloadable content. The deal seemed good to many users, while buying all of the DLC would cost players \$20 individually, the company offered it for \$12, which was virtually saving almost 50%. Now the trick was, that most players were not likely to buy all of those DLC. Rockstar, though, by bundling everything up and offering a discount was able to entice players to buy content they normally would not (Williams M, 2017).



Figure 5. Nintendo offers to purchase expansions and DLC separately from the original game (Usgamer,2017)

Consumers, certainly, see the trick companies followed - to make players pre-order additional content. The game cost generally evolves around \$60, but you need to pay additionally some \$20 to unlock features that were supposed to belong to the game initially (Williams M, 2017). Moreover, often consumers have no clue what they are paying for, since future expansions are not even revealed. In the end you are pre-purchasing something with the idea that you are saving your money on something you might not even want.

On the side of consumers, there's no real visibility as to whether the prices originally set for DLC have any meaning. There's value added to digital content: some of that is related to the production of the content, but players never know how much.

## 4.2 Loot boxes or Random Chance Purchases

One of the “ultimate evolutions” of microtransactions have become the introduction of loot boxes. The idea of them is to get a mystery box either through progression, in-game currency, or real money. Inside of the box can be costumes, skills, gear, or random items specific to the game. The player wants the unlockable items and these blind boxes are the only way to get them. In some cases, there are alternate methods of purchase available, but the random luck of the loot box is designed to be the easiest and the most exciting way.

Mostly the loot boxes have been a bane of digital CCG, but later has spread to other game genres. For instance, players of Magic the Gathering buy blind booster packs to get the cards they want, in games like Hearthstone and Gwent players are tearing open digital packs. In many cases, these digital booster packs are the only way to get the cards, making them the only real method of progression in CCGs. Even Magic has gotten in on the action, with Wizards of the Coast offering a web-based and PC client of the card game. Despite this, the genesis of loot boxes stretches farther back.



Figure 6. Hearthstone packs open random value cards, often already owned copies (Forbes, 2017)

Publishers and developers sometimes entice players by making more expensive versions of loot boxes, which have a better chance to drop better stuff. Rarity is one of the common ways, companies get players to open more boxes, get a chance for a better rare item. Some games, like Overwatch, offer seasonal, limited time events, encouraging players to buy more boxes to get the seasonal skins they want.

Furthermore, there appeared paid games that offered loot boxes at the same time, though usually they left the mechanic for online multiplayer modes. So, for example, Mass Effect 3's multiplayer launched purchasable equipment packs. Counter-Strike: Global Offensive added weapon cases, requiring an additional key to unlock. Releases from 2016 were infested with loot boxes: Call of Duty: Infinite Warfare has supply drops and zombie crates, Halo 5: Guardians has REQ Packs, Battlefield 1 has Battlepacks, and Gears of War 4 has Gear Packs (Williams M, 2017).

As part of the gambling conversation, people and organizations have begun to understand that since real-money are involved, these virtual items carry real value. Valve company has been under several lawsuits involving underage and illegal online gambling related to Counter-Strike: Global Offensive. Apparently, there is a long-standing problem of people using rare CS: GO skins to bet on professional matches, which makes sense, given that some skins are worth hundreds of dollars.

Unfortunately, it's a grey area at the moment, especially in the United States. Even among gaming communities, people still tolerate such a business model. Like fans of Overwatch are generally fine with loot boxes, because they feel that only cosmetic items like skins, emotes, and sprays come from them. In contrast, in a game like Shadow of War orcs you can gain from War Chests impart gameplay directly, giving to the paying gamers unfair advantage.

## 5 Ethical and legal issues

### 5.1 The growing issues with microtransactions

The microtransactions not only outrage gamers all over the world, they also have recently drawn attention on the governmental level. The key question was whether the use of microtransaction, specifically, loot boxes should be considered as gambling. After the scandal with Star Wars: Battlefront II, Belgium gambling authority recognised loot boxes as a form of gambling. China and Japan already regulate loot boxes as gambling and so does Australia. The United States still has not decided how to treat this, though that can change soon. The Entertainment Software, on the other hand, does not view it as gambling.

The question of loot boxes and gambling seems to be not just about the current definition of what gambling is, but about whether the system is deliberately designed to be addictive and uses systems originally created for gambling to get people to spend money. On one of the conferences Hawaiian State Representative Sean Quinlan compared loot boxes to smoking as a similarly bad addiction.

We do not allow to encourage out kids to smoke, and we should not allow Star Wars to encourage kids to gamble.  
(Sean Quinlan)



So why is it important to recognise microtransactions as a form of gambling? An example of a teenager who spent about \$4,500 on EA's FIFA from his father's bank card, could be a good reason (CinemaBlend, 2019). As CinemaBlend website reports, "Jeremy Hillman, a communications director at World Bank, learned the hard way about microtransactions when his 13-year-old son purchased \$4,500 worth of digital goods". Hillman tell about his troubles in a blog describing how he was charged on his credit card for the FIFA transactions without even knowing when or how it happened. It was only after he saw several charges for \$109 on his credit card statement did, he decide to investigate. Turns out that his son had been making the charges. He had no friends and he wasn't playing outside as much. He was taking comfort in FIFA. He would buy the player packs, and he could do so since Jeremy Hillman attached his credit card to the Xbox Live account that his son played on. However, what Hillman didn't know was that after buying the digital copy of FIFA with his card, the card itself was left on the account, enabling to make digital purchases without requiring any kind of authorization.

This is an industry problem. In America there are no consumer safeguards in place to prevent corporations from abusing credit card purchases made at the hands of kids. It's extremely easy to attach a card to a digital account and allow the account user (sometimes children) to make microtransaction purchases without requiring any kind of authentication (CinemaBlend, 2019).

Additional authentication and clearly visible wording and tabs are required in apps to prevent kids from abusing the microtransaction functions, in Europe. While it's definitely a parent's job to watch over and monitor what their kid does with any device, it's still the responsibility of the corporation to ensure that they're not taking advantage of children playing on their parent's devices by making in-app purchases look like a standard in-game purchase (CinemaBlend, 2019).

As it was mentioned earlier, the microtransactions give the in-game items real value and inspire scamming to flourish. Another loud scandal connected to microtransactions happened not long ago. This time it involved Counter-Strike: Global Offensive gambling skins. Dozens of sites that allow CS players to gamble

with virtual in-game items have exploded in popularity in recent years. They sponsor some of the biggest streamers, players, and even some teams. The market has been largely unregulated because the sites largely exist in a legal grey area.

## 5.2 UK parliament investigation report on loot boxes

After nearly nine months of evidence gathering, the Digital, Culture, Media and Sport Committee published its 84-page report into immersive and addictive technologies. (Taylor H, 2019)

The inquiry took evidence from all corners of the industry, including developers, trade bodies, and academics, and reported a "lack of honesty and transparency" among social media and game company representatives. (Taylor H, 2019)

According to Ofcom, people spend a big share of their time on digital technologies. The research shows, that people in the UK check their smartphone every 12 minutes, and one in five spend more than 40 hours a week online. Among young people, 12-to-15-year-olds spend an estimated 13 hours 48 minutes per week playing video games. Ofcom's research also suggests that 44% of parents of 12-to-15-year-olds find it hard to control their child's screen time - concerns that are shared by an increasing proportion of young people in that age range (UK parliament report, 2019).

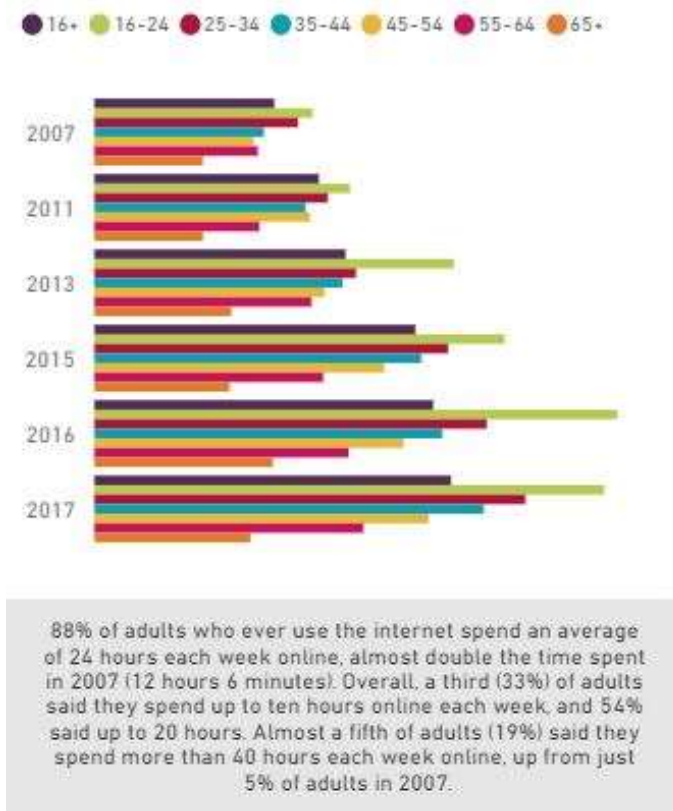


Figure 7. Claimed hours per week spent online (Communications market report, 2018)

The research made it obvious, that the more time a person spends online, the easier and more effective the monetization through online advertising and in-game merchandising becomes.

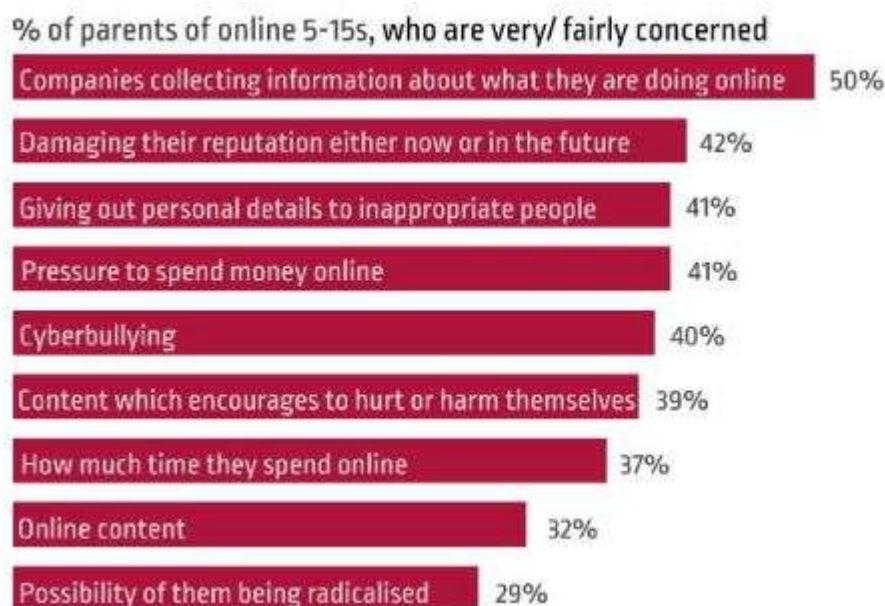


Figure 8. Parental concern about aspects of their child's internet use (Children and parents: Media use and attitudes, 2018)

According to the Figure 9, 41% of parents of children with the age ranging from 5 to 15 years old are concerned that their children will be pressured to spend money online. This can be a serious issue to parents who do not know how to use parental control on their children's gadgets or are not aware of such function at all.

### 5.2.1 Gambling-like behaviours

The UK report has concluded that some games inspire gambling-like behaviours among players. Thus, it is important to pay attention to the distinction between licensed online gambling, social-casino style games that "have the look and feel of traditional gambling" but may not be licensed as such, and games containing features akin to gambling as one aspect of the overall product or game experience rather than the predominant quality. (UK parliament report, 2019)



Figure 9. People who spend money betting on eSports or purchasing in-game items (Gambling commission, 2017)

It became obvious that many games have attributes similar to those of traditional gambling facilities. However, gambling is not necessarily the primary focus of those games. According to the report this fact is important to acknowledge, since the target audience of games is primarily young people, who are being exposed to such features and starting to perceive gambling as normal. Further, the report shares a concern of a parent over their child, playing the game Bricky Farm, which is rated suitable for children, but apparently containing a gambling-like feature. Specifically, the parent tells about a roulette style wheel mini-game whereby differing amounts of gems can be won for further advancement. This is where the game could become addictive to someone with a susceptibility but more than that it is introducing children as young as 4 to the 'thrill' of gambling. (UK parliament report, 2019)

The fact that the in-game gambling is socially acceptable and readily available makes it dangerous for children. Despite of this fact, PEGI has stated, that they cannot define loot boxes as gambling. However, games regulated under the PEGI system can indicate that there are in-game purchases. Director of operations PEGI S.A. Dirk Bosmans commented:

... we cannot define what constitutes gambling. That is the responsibility of a national gambling commission. Our gambling content descriptor is given to games that simulate or teach gambling as it's done in real life in casinos, racetracks, etc. If a gambling commission would state that loot boxes are a form of gambling, then we would have to adjust our criteria to that. (Dirk Bosmans, 2017)

The UK report further concludes, that they believe that any gambling-related harms associated with gaming should be recognised under the online harms' framework. To inform this work, the Department for Digital, Culture, Media and Sport should immediately establish a scientific working group to collate the latest evidence relating to the effects of gambling-like mechanics in games. The group should produce an evidence-based review of the effects of gambling-like game mechanics, including loot boxes and other emerging trends, to provide clarity and advice. This should be done within a timescale that enables it to inform the Government's forthcoming online harms legislation. (UK parliament report, 2019)

### 5.2.2 Loot boxes

The loot boxes apparently have structural and psychological similarities with gambling. Dr Aaron Drummond and Dr James Sauer claim in the report that the random delivery loot box rewards are akin to conventional gambling products (UK parliament report, 2019). They came to the conclusion that loot boxes are designed to exploit potent psychological mechanisms associated with the development and maintenance of gambling-like behaviours (UK parliament report, 2019).

Although there is not enough scientific evidence that loot boxes cause problem gambling, Dr Drummond and Dr Sauer argue that it is plausible that engaging with these loot box systems could have short-term consequences such as over-spending on accessing loot box systems and longer-term consequences such as

facilitating migration to more conventional forms of gambling (UK parliament report, 2019).

The short report, named *The prevalence of loot boxes in mobile and desktop games* and conducted by individuals Dr D. Zendle, R. Meyer, S. Waters, Dr P. Cairns shows that 54 out of 100 top mobile games contained loot boxes (54%). 17 out of 50 top desktop games contained loot boxes (34%).

PEGI Rating	Number of games that feature loot boxes (Cumulative)			Number of installs / owners of games that feature loot boxes, in millions (Cumulative)		
	Mobile	Desktop	Total	Mobile	Desktop	Total
3+	14/100 (14%)	2/50 (4%)	16/150 (10%)	495	5.2	500.2
7+	31/100 (31%)	3/50 (6%)	34/150 (22%)	906.5	15.2	921.7
12+	51/100 (51%)	6/50 (12%)	57/150 (38%)	1,318	55.2	1,373.2
16+	54/100 (54%)	8/50 (16%)	62/150 (41%)	1,478	125.2	1,603.2
18+	54/100 (54%)	17/50 (34%)	71/150 (47%)	1,478	294.7	1,773.7
Unrated	54/100 (54%)	17/50 (34%)	71/150 (47%)	1,478	294.7	1,773.7

Figure 10. Age-ratings of games featuring loot boxes (Prevalence of loot boxes report, 2019)

The Figure 11 indicates the wide availability of mobile and desktop games featuring loot boxes up to 50% to young people under 18 years of age.

It is important to know, that certain games allow gamers to “cash out” the loot box content for real money. However, the number of these games is relatively low in comparison to the games that have no “cash out” feature, since it obviously may hinder the game company’s microtransactions profit.

Type of loot box	Number of games			Number of installs / owners of games, in millions		
	Mobile	Desktop	Total	Mobile	Desktop	Total
Cash out	4/54 (7%)	10/17 (58%)	14/71 (19%)	310	255	565
No cash out	50/54 (92%)	7/17 (41%)	57/71 (80%)	1,168	39.7	1,332.7

Figure 11. Number of games featuring “cash out” (Prevalence of loot boxes report, 2019)

The conclusion of the report indicates, that, currently, there is no regulatory framework for loot boxes, since it does not fit the requirements of licensable gambling under the Gambling Act 2005, because the in-game items have no real-world monetary value outside the games. (UK parliament report, 2019). Although it is getting quite possible to change the situation, since some games do have possibilities of a cash-out for real world money.

The situation around the world indicates that other countries than the United Kingdom decided to take action about loot boxes and possible gambling features in videogames. For instance, because of specifics of their legislation, Belgium managed to equate loot boxes with gambling. This, in turn, allowed Belgium to take legal actions against certain game companies. The Netherlands has concluded, that the loot boxes they had studied, contravened the country’s Betting and Gaming Act. In China, games that feature loot boxes are legally required to state the odds of obtaining each item. (UK parliament report, 2019)



## 6 Analysis and Discussion

The objective of this thesis was to look into the phenomenon of microtransactions, specifically, into its legal and ethical dimensions. By reviewing relevant literature and analysing a case study, the thesis aims at showing the real situation with microtransactions, for instance, why do they are, despite of all the issues, an important monetization tool for gaming companies.

It has been shown through the literature review, that microtransactions, and one of their widespread type – loot boxes specifically, can be viewed as a form of unregulated gambling. The question of the ultimate importance, though, stays unanswered. In what way the microtransactions should and can be regulated? The obvious answer here would be that loot boxes must be recognized as a form of gambling. Otherwise, it seems to be impossible to control the situation with availability to underage consumers.

The case study of the UK parliament report shows that microtransactions arouse a growing concern on a governmental level. Multiple countries around the world start to understand the importance of regulation of microtransactions. For instance, the UK parliament report provides the information of potential harm of microtransactions, such as loot boxes, and other gambling activities that are unofficially provided by game companies. The growing concern here comes from the side of parents who oppose the idea of their children gambling in video games. Not only children are being affected by the gambling in video games. The literature review clearly indicates that the adult population becomes involved in microtransactions as a sort of gambling, suffers from gambling and gaming addiction.

Finally, it is worth mentioning again how important it is to recognize microtransactions as a form of gambling. This could help to activate control over game companies' usage of microtransactions and will raise awareness among consumers about what they are dealing with.

## 7 Conclusion

All of the above-mentioned reasons make microtransactions a powerful tool of revenue as well as threat for the gaming industry. There is already a plenty of scandals and discontent from the consumers, but gaming companies do not even consider changing their strategy, may be, at least, to an extent where they give the microtransactions a less detestable form. Nevertheless, there is still people who justify these methods, seeing it a way of supporting expensive game production process, and means for encouraging companies to come up with new entertaining and money consuming content.

It seems like microtransactions are not about to go extinct in the near future. The last few years has seen a huge shift in the way games are played and distributed. Where games once came on cartridges, discs or even audio tapes, now are being downloaded from online stores. We can aspect that game monetization is going evolve further taking unpredictable shapes. The questions should be asked to the gaming companies, to what direction they are going take it. It is either continuing a way of senseless monetization, or maybe it is time to start creating shared value, as it is a trend of big companies nowadays. The question of what to expect and how to tackle existing problems of microtransactions stays open. But it is sure, that since it has created concern on the governmental level, it will be either solved peacefully by companies recognizing the issue, or resolved with involvement of legal restrictions.

If micro-transactions are destined to ruin gaming, the best possible outcome is that they do it very quickly. The gaming industry can be naive, insular, myopic, and ignorant, but it has never failed to respond to the financial results of its actions. If micro-transactions as a practice are as cancerous and malignant as its biggest failures imply, failing fast is the best possible future for all parties involved.

The most likely answer is the simplest, the safest, and most unexceptional: micro-transactions are here and they're going to be here for a while. When they cross the

line, enough people will object that it ultimately becomes of little consequence. Most things ultimately are.

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