

**Synthesis of the works carried on by GREF<sup>1</sup> eGambling Working Group  
with regard to the implementation of the *Declaration of gambling regulators  
on their concerns related to the blurring of lines  
between gambling and gaming***

**May 2019**

---

<sup>1</sup> Gaming Regulators' European Forum - <http://www.gref.net/>

## Table of contents

### **Introduction**

### **Findings**

1. Game as a service/Micro-transactions
2. Loot-boxes
3. Tradability of in-game items/Skin Gambling
4. Public perceptions
5. Consumer information/Protection of minors

### **Conclusions**

### **Annexes**

1. Declaration of gambling regulators on their concerns related to the blurring of lines between gambling and gaming – signed version
2. Economic review on video games, social gaming, micro-transactions and skin gambling – January 2019
3. Available publications

### **About GREF & the eGambling Working Group**

The Gaming Regulators European Forum (GREF) is a platform set up by the public authorities of its respective member nations, who are tasked with the regulation of gaming and gambling within their respective territories.

GREF was originally established in 1989, with the objectives of acting as a forum whereby European gaming regulators could meet to exchange views and information, and discuss policy on gaming matters. GREF is currently made up of thirty-six gaming regulators hailing from thirty-one European countries.

The eGambling & Technical Standards Working Group is one of three discussion groups within the ambit of GREF.

## Introduction

The *Declaration of gambling regulators on their concerns related to the blurring of lines between gambling and gaming (hereinafter the Declaration)*<sup>2</sup> was first proposed and discussed during the meeting of this Working Group on May 30<sup>th</sup> 2018 at GREF Conference 2018 in Prague.

The Declaration was released on September 17<sup>th</sup> 2018. The current number of its signatories amounts to 19<sup>3</sup>.

This Declaration reflects the shared concerns of its signatories with the risks being posed by the blurring of lines between gambling and other forms of digital entertainment such as video gaming. Concerns in this area have manifested themselves in controversies relating to skin betting, loot boxes, social casino gaming and the use of gambling themed content within video games available to children.

By signing this Declaration, those gambling regulatory authorities committed themselves to working together to thoroughly analyze the characteristics of video games and social gaming to determine if they engaged national legislation relating to gambling.

The conclusions of this common work are presented in this synthesis.

The GREF eGambling Working Group held three meetings in September 2018, January 2019 and April 2019.

Gambling regulators, or persons from the responsible Ministries, from the following jurisdictions participated in those meetings<sup>4</sup>: Gibraltar, Ireland, Liechtenstein, Malta, The Netherlands, Norway, Poland, Spain, Switzerland, United Kingdom, Cyprus, Finland, Portugal, Denmark, Latvia, Czech Republic and France.

Each meeting began with a *tour de table* enabling exchanges on the perception of and reactions to the Declaration and its follow-ups, as well as on the evolution of the dialogue with the video gaming and social gaming industry in their respective jurisdictions. It was clear that the Declaration had initiated a dialogue between some gambling regulators with industry associations and also directly with some video games publishers and developers.

The first meeting after the signature of the Declaration was a brainstorming session between gambling regulators focusing on loot-boxes and skins. Participants exchanged knowledge and sought to better understand the video gaming and social gaming industries, both technically and economically. The gambling regulators came to the conclusion that work was required to gather figures about micro-transactions in video games (namely loot-boxes and skins) and about social gaming (namely mobile games and social casino gaming) as well as on the skin gambling/betting market.

---

<sup>2</sup> Annex 1

<sup>3</sup> Latvia, Czech Republic, Isle of Man, France, Spain, Malta, Jersey, Gibraltar, Ireland, Portugal, Norway, Netherlands, United Kingdom, Poland, Austria, the State of Washington, Denmark, Finland and Cyprus.

<sup>4</sup> This synthesis also encompasses inputs from the gambling regulators of Australia, Austria, Estonia, Germany, Jersey and Isle of Man

In November 2018, the regulators completed an economic review on video games, social gaming, micro-transactions and skin gambling based on public information available at that time, including a number of studies engaged by academic institutions, by Governments and other industry-monitoring media outlets. This review was updated in January 2019<sup>5</sup>. Allowing for the fact that the industry stakeholders use different indicators, which complicate estimations, this review, showed that:

- the global games market is of significant value and in continuous growth;
- a significant number of players are under 18<sup>6</sup>;
- in-game purchases facilitate recurrent consumer spending beyond any initial game purchase price, so that the total spend on loot-boxes and micro-transactions may grow in the future;
- there are indications that mobile gaming may be becoming predominant and the mobile sector seems to be the most established games platform for loot-boxes;
- loot-boxes generated a large amount of the global video game industry revenue in 2018<sup>7</sup>.

The second and third Working Group meetings, held in January and April 2019, involved sessions with representatives of companies involved in the video-gaming and esports industries<sup>8</sup>, as well as representatives of consumer and child protection organisations respectively<sup>9</sup>. GREF thanks all the parties involved for their efforts, resources and time put in to provide their insights to the Working Group.

---

<sup>5</sup> Annex 2

<sup>6</sup> The Interactive Software Federation (IFSE) gathers quarterly data from its members (polls by Ipsos Mori) which show that among them, 24% of the players are between 6 and 17 years old.

<sup>7</sup> Because of their variety, skins may generate more money than loot-boxes. The Interactive Software Federation (IFSE) 2018 data gathered by Ipsos Mori by its members show that in-game purchases represent 43% of their global revenue on key markets in Europe.

<sup>8</sup> Mr. Sergi Mesonero Burgos, Liga de Videojuegos Profesional (LVP) and Mr. Flavien Guillocheau, Pandascore

<sup>9</sup> Ms. Vicki Shotbolt, ParentZone; Mr. Zéphyr Seheren, The French Red Cross and Ms. Laurie Liddell, UFC Que Choisir

## Findings of GREF eGambling Working Group

### **1. Game as a service/Micro-transactions**

The concept of a “Game as a service” represents the provision of video-games or game content on a continuous revenue-generation model through in-game transactions such as micro-transactions, subscriptions, downloadable content (DLC), seasonal passes, etc. “Game as a service” is a way to monetise video-games after their initial sale or to support a free-to-play model.

“Game as a service” are video-games designed to elicit longer commitment by the players and the free-to-play model allows for ease of access, and thus a larger player-base. Of the 10 most viewed games on Twitch<sup>10</sup> in 2018, 5 are free to play, with 3 including micro-transactions. According to the representatives of gaming community, the development of the concept of “Games as a service” is also a positive step for esports tournament organisers<sup>11</sup>.

The more content in a game, the more gameplay it enables. Consumer engagement is different from one game to another. Models correspond to different audiences. Subscriptions do not work with younger audiences who do not endorse “long” term commitment. DLC requires payment to unlock the content. Micro-transactions are more natural in free-to-play games where there is a large audience and no (entry) price barrier. Different in-game transaction types (subscriptions and micro-transactions mainly) may refer to the same content: they are only different ways to market/to purchase the same content.

Micro-transactions are a business model where players can purchase in-game items, which are cosmetic and/or gameplay-impacting virtual goods, such as skins (customization option for a player's in-game avatar or equipment that changes its appearance), loot-boxes (box containing random in-game items), in-game virtual currencies, etc. Several types of micro-transactions are cumulated in some games.

Micro-transactions are estimated to generate a very significant part of the revenues of the free-to-play video-game industry. 70 to 75% of FIFA players play *Ultimate Team*<sup>12</sup>, a mode which heavily relies on micro-transactions. Electronic Arts' Star Wars generated \$800m on micro-transactions during the last quarter of 2018<sup>13</sup>. Activision Blizzard generated 50% of its revenues 2018 (\$4bn) with micro-transactions<sup>14</sup>.

The use of “virtual” currencies developed for use within specific games has grown considerably during the last decade, as developers and publishers push for more player engagement and retention, and, in the case of esports, also viewership engagement and retention.

---

<sup>10</sup> Twitch is the world's leading live streaming platform for gamers – [www.twitch.tv](http://www.twitch.tv)

<sup>11</sup> This opinion was expressed during WG meeting on January. Representatives from LVP and Pandascore were present.

<sup>12</sup> <https://www.vg247.com/2017/12/06/75-of-ea-sports-players-play-ultimate-team-and-about-35-spend-money-on-it/>

<sup>13</sup> <https://www.gamesindustry.biz/articles/2017-03-01-eas-ultimate-team-now-worth-USD800-million-annually>

<sup>14</sup> <https://investor.activision.com/news-releases/news-release-details/activision-blizzard-announces-fourth-quarter-and-2018-financial>

There are different opinions within the industry between developers<sup>15</sup> and publishers on revenue-generating options. The former – normally being gamers themselves - are more likely to prefer developing traditional single-purchase game titles, whilst publishers have been driving models such as free-to-play with micro-transactions which are more likely to make money. Furthermore, there is a belief that the younger audience is more comfortable with micro-transactions and free-to-play.

Social and competitive features within video-games also act as catalysts to revenue-generation models, whether the micro-transactions relate to solely in-game cosmetic items, or whether the virtual items impact gameplay. Player versus Player (PvP) is a mode where players are competing against each other. Other revenue models may include the players themselves, or third persons wagering on in-game performances. This is mostly done by third party platforms rather than within the game itself. Commissions can be taken on the wagers (entry fees) and prizes distributed at the end of the game. Aggregators of these small tournaments exist<sup>16</sup> but there are some doubts about the efficiency of matchmaking<sup>17</sup>. PvP injects a social dimension by establishing a ranking between gamers. Bets may be taken on influencers playing against one another. As such, PvP induces more engagement of the players, namely where micro-transactions are added. There is an evolution from solo games towards games with a social dimension. With the phenomenon of video-game streaming, betting on the outcome of in-game events by third parties watching the stream is also a reality.

‘Pay-to-win’ models allow players to purchase in-game items affecting gameplay through micro-transactions. This is a problem for esports tournament organisers as it devolves the competitive element to how much a player is ready to spend, but it may also induce excessive spending by players who may be seek ways to become better than others.

The majority of the gamers’ base is casual, i.e. only a few gamers spend money in games. In free-to-play games, where minors are part of the player base, 20% of the consumers have paid once for in-game content and 5% of the players generate 85% of the revenue. “Game as a service” increases publishers’ revenues while making it difficult for gamers to know exactly how much money they spend in the game.

The current consolidation<sup>18</sup> of the video games industry appears as an ongoing process because it is nowadays an expensive process to develop and promote a game. Vertical integration (developers, distribution, streaming, servers) is even a bigger concern than consolidation for esports tournament organizers because the ownership of the value chain has consequences on the integrity of the games.

Alternatives to the current economic model of the video-games industry may be linked to the advertisement of the games (licensing of merchandise and movies). Competitive modes are inherent to some games and competition enhances the revenue generation aspect of games in two ways: (i) Competitive modes may induce players to play more often; and (ii) Broadcasting esports, and selling the content to broadcasters and/or advertising during the games.

---

<sup>15</sup> International game developers association call to action on loot-boxes in November 2018- <https://www.igda.org/blogpost/1016423/313945/Call-to-Action-Loot-Boxes>

<sup>16</sup> Skillz - <https://www.skillz.com/>

<sup>17</sup> In video games, matchmaking is the process of connecting players together for online play sessions.

<sup>18</sup> Chinese conglomerate Tencent holds shares in 7 publishers out of the 10 most viewed games on Twitch.

## **2. Loot-boxes**

The industry considers that loot-boxes are an important component of the continuing monetization of games which may often be sold at no or low initial cost. Consumer associations believe that public opinion may reach a tipping point in the coming years as regards loot-boxes insofar that they are considered problematic for young people.

The difference between an in-game purchase and a loot-box is that for in-game purchases one knows exactly what one purchases. In the case of a loot-box, there is an element of uncertainty; one purchases something whose properties are unknown. The “mechanics” of not being able to purchase what one wants, because the loot-boxes mechanism relies on chance, is considered by some to be akin to gambling. Chance is the only persistent element in the definition of gambling, notwithstanding the differences existing between each national gambling regulatory framework.

Gamification of the in-game rewards system, adding randomness to game mechanics to enhance players’ engagement and increase revenue has always been implemented by designers. Now gamification is exploited by publishers. Linking randomness to the content of the purchase means loot-boxes may increase time engagement and spending.

Loot-boxes mechanics are considered by consumer associations to contribute to gambling addiction<sup>19</sup>. In their view, between 10 and 18 years-old, teenagers’ brain development is sensitive and the impact can be major as regards brain disorder. Children’s cerebral development makes them unable to control gambling features in games<sup>20</sup>. Those features are also considered to expose and acclimatise them to gambling. The lever of the experimental dimension in loot-boxes is to win something. Children’s brains are more vulnerable than adults’ are to this lever. One will always receive something with loot-boxes, but if one gets an item, he/she already has or doesn’t desire, it will be considered as a loss. Therefore, one could be induced to spend more to chase a win.<sup>21</sup>

When the acquisition of in-game items is linked to randomness, drop rates may be indexed on the performance of the players and that may lead to a question of game fairness. Publishers have information about the metrics on frequency and randomness of in-game items, but the players themselves have no visibility. In the absence of certification or regulation, the players are forced to trust the integrity of the game publishers and developers that such reward systems are indeed fair. Further information on the public perception consequences of randomly generated loot-box rewards that impact gameplay is also mentioned in section 4 of this synthesis.

## **3. Tradability of in-game items/Skin gambling**

It is believed by many regulators that in-games items acquire value outside of the games because of the possibility of their tradability. As soon as an item is tradable in game, there is a potential for a secondary market. In most cases, this is outside of the direct control of the game developer or publisher, although measures to facilitate or prevent it do exist. In-game items obtained in a video-game environment can be transferred, sold or offered to a marketplace (for sale or trade, often in

---

<sup>19</sup> Annex 3

<sup>20</sup> This opinion was expressed during WG meeting on April. Representatives from ParentZone (UK), The Red Cross (FR) and UFC Que Choisir (FR) were present.

<sup>21</sup> It should be noted that causal relation between lootboxes and gambling addiction has yet to be proven.



exchange for real money) by the game publisher itself or by third party websites<sup>22</sup>. The tradability of items has also led to the creation of the concept of skin gambling, which, based on the same technology as a marketplace, uses in-game items as currency for the purposes of gambling. This is normally done via third party websites, with or without the knowledge of the video-game publisher or developer.

A read through the terms and conditions of some video-game platform operators, makes it is clear that in-game items are not generally owned by the players, they only acquire a temporary right of use over the digital item, which is not even regarded as a good, but as part of the service offered by the platform. In some cases, it was noted that trading in-game items outside of the game environment, or using in-game items as currency for gambling, would infringe the property rights of the video-game publisher/developer however, as there is no obligation for a rights' owner to protect what's his, it is each publisher/developer's choice to take action or not, against the trading of in-game items outside of its game. Some publishers and developers have put mechanisms in place to prevent this from happening.

Monitoring and management of users' accounts is one such control mechanism, yet not always implemented by gaming platforms.

Monetization of in-game items outside of the game environment may be directly facilitated by game developers/publishers where the game design or the gaming platform on which the game is proposed, enables the connection of third party Application Programming Interfaces (APIs). However, as each in-game item has an ID or a token, tradability exists even where the games are not open data. APIs facilitate skin transactions insofar as they automate those transactions, but APIs are not a condition for skins' tradability. Skins tradability can occur indirectly by selling skins against a physical cash payment, on a third party online platform such as eBay or any online forum or instant messenger program, or even by selling the whole game account when the in-game items are not tradable.

Platforms developing games are perceived as knowing how they facilitate third party APIs into their systems. Publishers are protective of the APIs connected to their games because it benefits the ecosystem and enables new products to be built around the game, namely by their fan base. Websites like Skinpay<sup>23</sup> or OPSkins<sup>24</sup> use skins as currency and identify websites proposing to trade skins for money as well as associated websites.

Micro-transactions incur the use of a means of payment. Some gaming platforms provide for their own anonymous pre-paid cards and charge commissions on transactions occurring between user accounts. Commission rates may vary from one type of transaction to the other.

Vulnerability of gaming to potential money-laundering activities has lately been commented on in the press<sup>25</sup>. Skin payment websites could be considered as obliged entities according to financial regulation. Pursuant to Recital 10 of Directive (EU) 2018/843 of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing:

---

<sup>22</sup> <https://gameflip.com/>, <https://www.g2g.com/>

<sup>23</sup> <https://skinpay.com/> - "SkinPay is a new, rapidly growing payment system that uses Steam items as currency."

<sup>24</sup> <https://opskins.com/>

<sup>25</sup> [https://www.rtb.be/info/medias/detail\\_des-jeux-video-dont-fortnite-sont-utilises-pour-blanchir-de-l-argent-sale?id=10146644](https://www.rtb.be/info/medias/detail_des-jeux-video-dont-fortnite-sont-utilises-pour-blanchir-de-l-argent-sale?id=10146644) ; <https://kromtech.com/blog/security-center/digital-laundry>

*“Virtual currencies should not to be confused with [...] in-games currencies that can be used exclusively within a specific game environment. Although virtual currencies can frequently be used as a means of payment, they could also be used for other purposes and find broader applications such as means of exchange, investment, store-of-value products or use in online casinos. The objective of this Directive is to cover all the potential uses of virtual currencies.”*

Some payment instruments using skins may also be in breach of Directive (EU) 2015/2366 on payment services in the internal market.

#### **4. Public perceptions**

From the consumer associations’ point of view, gamers seem not to be enthused by in-game micro-transactions or by the pay-to-win model where the social dimension – e.g.: the social ranking linked to in-game progression - constitutes a reward<sup>26</sup>. Safety by design as opposed to addiction by design.

Skin gambling is a separate issue from loot-boxes, but both could be considered gambling even if they target two different gamer communities. Skin gambling targets a more traditional audience mostly playing on PC and gambling with virtual currencies, while loot-boxes targets all video-gaming consumers, including very young people.

Consumer law could help bringing more transparency on the real price paid by consumers: initial price of the game, season passes, downloadable content (DLC) and micro-transactions. Because not all consumer protection national authorities implement consumer protection regulation online, some consumers’ associations advocate for loot-boxes to be qualified as gambling in order to be able to rely upon concrete regulation to protect minors. With the development of cloud gaming<sup>27</sup>, the distinction between online/offline video-gaming will become obsolete.

The role of the gaming community is important for developers and publishers, especially where both are the same. They follow, listen and ask the community for feedback. The community is very reactive, but public perceptions are dominated by the most vocal parts of it. Parts of the audience are echo chambers about toxic behaviors and creative decisions taken by developers/publishers. There is no chain of representation within the gaming community, hard-core players and influencers are heard through Twitter and Reddit, but not the casual players.

Publishers and esports teams usually try to avoid connections/sponsorship with gambling operators, even though some gambling operators would be willing to sponsor teams or events in esports. There are exceptions where the violent features of the game make it difficult to get mainstream sponsors.

#### **5. Consumer information/Protection of minors**

---

<sup>26</sup> EA’s Star Wars Battle Front 2 is an example. Fans backlash to the pay to win system which resulted in a significant media attention and a reduction in EA’s stock value (<https://www.businessinsider.com/star-wars-battlefront-2-mess-explained-2017-11?r=US&IR=T>)

<sup>27</sup> Cloud Gaming is video gaming in streaming: players play remotely without having to download any content except from the video.

Rating boards as the Pan European Game Information (PEGI)<sup>28</sup> or the Entertainment Software Rating Board (ESRB)<sup>29</sup> provide recommendations about the suitable age appropriateness of games. Consumer associations do not participate in such rating boards. Age labels do not provide complete consumer information and are not a limitation for minors. On the contrary, age labels may be inducements for teenagers to buy games rated above their age range.

In 2013 and 2014, European national consumer protection authorities, acting through the Consumer Protection Cooperation (CPC) Network<sup>30</sup>, carried out a joint enforcement action on online games that offer possibilities to make purchases while playing (in-app purchases) and that are likely to appeal to or to be played by children. Several CPC authorities agreed on a common position<sup>31,32</sup> on these legal issues. The assessment made in this common position applies both to app stores as platforms and to individual app developers. They clarified that, although liability for the content of an app primarily rests with the app developer, an app store provider could also be held responsible for ensuring that games on their platforms do not contain direct exhortations to children.

The labels “in-app purchases”<sup>33</sup> and “in-game purchases” are not equivalent and are used by different stakeholders. In February 2018, ESRB announced the creation of the label “in-game purchases”. Likewise, in August 2018, PEGI announced the creation of a new content descriptor ‘in-game purchases’. However, as the scope of those labels is wide, they may still not ensure consumers’ complete information. Besides, PEGI and ESRB do not necessarily cover the widest spectrum of video-game sales, as they are traditionally limited to physical retail versions of the game. Nowadays, it is common practice for video-games to be sold as digital content online, and whilst some app stores acting as platforms do include labels, it is not necessarily an industry-wide practice.

The 11th Revision of the International Classification of Diseases (ICD-11) by the World Health Organisation (WHO)<sup>34</sup> has included the gaming disorder which is defined as *“a pattern of gaming behavior (“digital-gaming” or “video-gaming”) characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences”*. According to WHO: *“Studies suggest that gaming disorder affects only a small proportion of people who engage in digital- or video-gaming activities. However, people who partake in gaming should be alert to the amount of time they spend on gaming activities, particularly when it is to the exclusion of other daily activities, as well as to any changes in their physical or psychological health and social functioning that could be attributed to their pattern of gaming behavior”*.

One consumer protection association is of the opinion that gaming disorder and gambling disorder might coincide<sup>35</sup>. It quotes a study, which has shown that out of 1000 students, 12% show a problematic use of gaming i.e. a loss of control in their use of the game. There are two issues: time and money spent in game by children. Money is more a parents’ problem even though children not

---

<sup>28</sup> <https://pegi.info/>

<sup>29</sup> <https://www.esrb.org/>

<sup>30</sup> [http://ec.europa.eu/internal\\_market/scoreboard/performance\\_by\\_governance\\_tool/consumer\\_protection\\_cooperation\\_network/index\\_en.htm](http://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/consumer_protection_cooperation_network/index_en.htm)

<sup>31</sup> [https://ec.europa.eu/info/sites/info/files/common-position\\_of\\_national\\_authorities\\_within\\_cpc\\_2013\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/common-position_of_national_authorities_within_cpc_2013_en_0.pdf)

<sup>32</sup> [https://ec.europa.eu/info/sites/info/files/20140718\\_in-app\\_cpc\\_common-position\\_en.pdf](https://ec.europa.eu/info/sites/info/files/20140718_in-app_cpc_common-position_en.pdf)

<sup>33</sup> In-app purchasing refers to the buying of goods and services from inside an application on a mobile service, such as a smartphone or a tablet.

<sup>34</sup> <https://www.who.int/features/qa/gaming-disorder/en/>

<sup>35</sup> This opinion was expressed during WG meeting on April by the Red Cross (FR).

only use their parents' payment instruments to buy in-game items, but also pre-paid cards they acquire themselves. Most of the children do not realize how much money they spend in game.

The use of screens should also be a matter of dialogue between parents and children. One study<sup>36</sup> about the behavior of 2.000 teenagers concerning the use of screens in France in 2013 and 2014 is reported to have shown that children are the mirrors of their parents' behaviors. On social casino games, one consumer association mentioned that children observe their parents playing and that watching them play social video games could be a form of indirect marketing. One regulator mentioned that some political pressure exists about social casino games although it has not received any complaints from consumers about such games.

The dialogue between children and parents is difficult given the difference of their knowledge in the digital and gaming field. For example, young people talking about skin gambling – and playing on PCs - usually mention the name of one platform<sup>37</sup>. Parents only know that their children go to platforms to play, but may be unaware of the platform's capabilities whereby children can spend money, and even in some cases, be exposed to gambling or gambling-like products. Consumer associations consider that this is where prevention programs are needed. The digital knowledge gap will reduce over time but still represents a discrepancy between generations. One consumer protection association considers this is a behavioural issue, not an issue "fixable" by technology.

Consumer associations made the point that parents' intervention in children's experiences is limited. Parental control tools are mixed and often too complicated for parents and may be circumvented by children. However, even if the tools available are not completely effective, their presence gives information to parents<sup>38</sup>.

Furthermore, consumer associations that participated on WG meeting believe that limits in game play should be designed for children. Efficient limitations would be timers, game interrupters and time-outs because they do not focus on parental control but on children self-limitation. Those limitations should be designed for children according to their understanding. Nevertheless, the efficiency of such limits depends on the characteristics of each game: the efficiency thereof is hindered in games where the player is able to buy gameplay time.

Moreover, consumer associations feel that limits related to money should be designed for parents. Creating parents' accounts linked to the children's accounts, with specific setting such as the maximum amount of in-game purchases over a defined period, the validation by the parents of the payment instrument linked to the child's account, etc.

Education tools exist<sup>39</sup> and awareness raising campaigns are implemented. Some issues remain such as the provision of information in the games and information at school. Consumer protection associations experience a lack of means to implement public communications (display information in schools, release awareness raising campaigns, etc...). Some initiatives are already supported by national public authorities<sup>40</sup>. European initiatives such as the *Better Internet for Kids policy*<sup>41</sup> and the

---

<sup>36</sup> <https://www.ofdt.fr/enquetes-et-dispositifs/pelleas/>

<sup>37</sup> Steam

<sup>38</sup> [www.isfe.eu/responsible-gameplay/](http://www.isfe.eu/responsible-gameplay/) ; [www.pegi.info](http://www.pegi.info) ; <http://www.esrb.org/parentaltools/>

<sup>39</sup> « The game educator's handbook – Revised international edition” – [www.pelikasvatus.fi](http://www.pelikasvatus.fi) - <https://pelikasvatus.fi/gameeducatorshandbook.pdf> ; [www.pedagojeux.fr](http://www.pedagojeux.fr) ; etc.

<sup>40</sup> <https://www.e-enfance.org/jeux-video-info-parents>

<sup>41</sup> <https://www.betterinternetforkids.eu/web/portal/policy/bikmap>

*#SaferInternet4EU*<sup>42</sup> campaign, or the Safer Internet Centers<sup>43</sup> are examples of actions, which are coordinated at the European Union level.

---

<sup>42</sup> <https://www.betterinternetforkids.eu/web/portal/saferinternet4eu>

<sup>43</sup> <https://ec.europa.eu/digital-single-market/en/safer-internet-centres>

## Conclusions

Relevant national authorities responsible for consumer protection enforcement, health, education, digital and financial regulation should continue to be involved in the debate relating to the risks being posed by the blurring of lines between gambling and other forms of digital entertainment such as video gaming, i.e. skin betting, loot boxes, social casino gaming and the use of gambling themed content within video games available to children.

However, it is recognized that whether these activities ultimately trigger the implementation of gambling regulation, would depend on each national gambling definition.

Where possible, according to their national legislative framework, gambling regulators should consult with other relevant stakeholders to this Declaration of proposed actions, to consider more coordinated responses.

The video game industry and the social gaming industry are encouraged to provide and the consumer protection organizations to advocate, for more accurate information being displayed to consumers (e.g.: specify the scope of the “in-game purchases” label). Better consumer information would give players more certainty on in game purchases (disclosure of the content of loot-boxes and of the drop rates<sup>44</sup>) as well as more flexibility in the playing of the game. This would include the possibility to acquire the same content in different ways by direct sale of in-game items included in loot-boxes, and providing for exchangeability of in-game items and enabling refunds).

GREF members will continue to develop their close cooperation and exchange of information on issues relating to loot boxes and skin gambling, where these trigger gambling regulatory concerns.

---

<sup>44</sup> Disclosure of the drop rates could also bring more clarity about the reality of randomness.

## ANNEXES

## **Annex 1 – Declaration of gambling regulators on their concerns related to the blurring of lines between gambling and gaming (signed)**

### **Declaration of gambling regulators on their concerns related to the blurring of lines between gambling and gaming**

Our authorities are committed to the objectives of their public policies with regard to consumer protection, prevention of problem gambling and ensuring the safety of underage persons. While each regulator has distinct duties and powers within our own national gambling frameworks, we share a number of common principles including the need for gambling to be regulated to ensure high standards of integrity, fairness and consumer protection, in particular in relation to children.

Given these shared principles, we are increasingly concerned with the risks being posed by the blurring of lines between gambling and other forms of digital entertainment such as video gaming. Concerns in this area have manifested themselves in controversies relating to skin betting, loot boxes, social casino gaming and the use of gambling themed content within video games available to children.

Regulators identify in such emerging gaming products and services similar characteristics to those that led our respective legal frameworks and authorities to provide for the regulation of online gambling.

We commit ourselves today to working together to thoroughly analyze the characteristics of video games and social gaming. This common action will enable an informed dialogue with the video games and social gaming industries to ensure the appropriate and efficient implementation of our national laws and regulations. Each gambling regulator will of course reserve the right to use instruments of enforcement given by its national gambling regulatory framework. We will also work closely with our consumer protection enforcement authorities.

We anticipate that it will be in the interest of these companies whose platforms or games are prompting concern, to engage with [gambling] regulatory authorities to develop possible solutions.

This common action by gambling regulators will raise parental and consumer awareness regarding the transition between gaming for leisure and entertainment and the offering of gambling possibilities.

We expect that this Declaration will initiate a constructive dialogue between gambling regulators and responsible game developers.

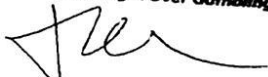
This Declaration, which reflects the shared concerns of its signatories, was discussed at the annual meeting 2018 of the Gambling Regulators European Forum.



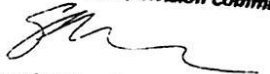
*Signe Bime, Director of Lotteries and Gambling Supervisory Inspection of Latvia*



*Karel Blaha, Director of the State Oversight Over Gambling Department, Czech Republic*



*Steve Brennan, Chief Executive, Gambling Supervision Commission, Isle of Man*



*Charles Coppolani, Chair of the French Online Gaming Regulatory Authority*



*Juan Espinosa Garcia, CEO, Directorate General for Gambling Regulation, Spain*



*Heathcliff Farrugia, Chief Executive Officer, Malta Gaming Authority*



*Jason Lane, Chief Executive, Jersey Gambling Commission*



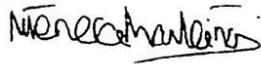
*Andrew Lyman, Executive Director, Gambling Division, HM Government of Gibraltar*



*Brendan Mac Namara, Principal Officer, Gambling Policy Division, Department of Justice and Equality of Ireland*

*Brendan Mac Namara*

*Teresa Monteiro, Vice-President of Turismo de Portugal, I.P*



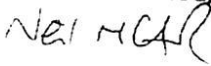
*Henrik Nordal, Director Deputy General, Norwegian Gaming Authority*



*Jan Suyver, Chair of the Board of Directors of the Netherlands Gambling Authority*




*Neil McArthur, Chief Executive Officer, UK Gambling Commission*



*Paweł Gruz, Undersecretary of State in the Ministry of Finance, Poland*

*PODSEKRETARZ STANU*

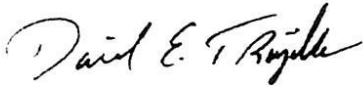


*Paweł Gruz*

*Alfred Hacker, Director, Federal Ministry of Finance, Austria*



*David Trujillo, Director, Washington State Gambling Commission*



*Birgitte Sand, Director, Danish Gambling Authority*

*Saaramia Varvio, Chief of Gambling Administration, National Police Board of Finland*



*Ioanna Fiakkou, Chairwoman of the National Betting Authority, Cyprus*



## Annex 2 - Economic review on video games, social gaming, micro-transactions and skin gambling – January 2019

### Video games

According to Ubisoft, the size of the EMEA region and North America video games market in 2017<sup>45</sup> was €36 billion (€8,9 billion sales on physical games and €27,1 billion on digital sales).

But in April 2018, the Entertainment Software Association (ESA) released 2018 Essential Facts about the US Computer and Video Game industry:

- The total consumer spend on the video game industry was \$36 billion in 2017 out of which \$29.1 billion on content, \$4.7 billion on hardware and \$2.2 billion on accessories including VR
- In 2017 79% of the sales occurred in digital format including subscriptions, digital full games, digital add-on content, mobile apps and social network games.

According to the Entertainment Retailers Association, the combined physical and digital UK games sales in 2017 generated a record of £3.35 billion, increasing 9,6% on the previous year. An Entertainment Retailers Association (ERA) report released on January 3<sup>rd</sup> 2019 states that 51,3% of the £7,537 billion income of the UK entertainment market in 2018 comes from videogames<sup>46</sup> (i.e. £3.866) with an increase in digital sales by 12,8% on consoles and mobiles.

According to the French Entertainment Software Editors Union<sup>47</sup>, the revenue of the French video games market amounted €4.3 billion in 2017: €2.401 billion for console, €1.124 billion for PC and €778 million for mobile.

The Interactive Software Federation of Europe (ISFE) first quarterly insight 2018<sup>48</sup> shows that the video games revenues in Germany, France, Spain and UK amounted €2,6 billion during the first quarter 2018:

- Revenue split by device: 44% from consoles out of which 42% is digitally driven (downloadable content, game downloads and micro transactions), 38% from smartphones and tablets and 15% from PC.
- Revenue split by format: 39% of which from online (including downloads, subscriptions to multiplayer games, browser games and games on social network sites), 37% from apps (paid and free) and 24% from packaged (new, pre-owned and rental).

In November 2018, Newzoo cut its global games forecast for 2018 to \$134,9 billion<sup>49</sup> spread out as follows:

- \$63,2 billion for the mobile games market which will remain the largest segment in 2018 with 47% of the global games market (\$50 billion for (smart)phone games and \$13,2 billion for tablet games);
- \$38,3 billion for the console game market;
- \$33,4 billion for PC (\$29,2 billion for boxed/downloaded PC games and \$4.3 billion for browser PC games).

---

<sup>45</sup> Ubisoft 2018 Registration document and annual report

<sup>46</sup> Gamewave.fr/fifa19 – « Le marché britannique des jeux vidéo est désormais plus important que ceux de la musique et du streaming réunis », Aurélien Kohli – 3 janvier 2019

<sup>47</sup> SELL – L'essentiel du Jeu video – October 2018

<sup>48</sup> [https://www.isfe.eu/sites/isfe.eu/files/gametrack\\_2018\\_q1\\_facts.pdf](https://www.isfe.eu/sites/isfe.eu/files/gametrack_2018_q1_facts.pdf)

<sup>49</sup> Newzoo previous forecasts dated April 2018 were that 2.3 billion gamers across the globe would spend \$137.9 billion on games in 2018 with digital game revenues taking 91% of the global market with \$125.3 billion.

But Goldman Sachs estimate that the global video game industry will generate \$120 billion in revenue this year.

Newzoo also estimates that in the future:

- by 2021, the global games market will reach \$174 billion<sup>50</sup> with mobile games accounting for 52% of revenues;
- most of the growth will come from the smartphone gaming segment;
- engagement with PC games, where some of the most popular titles are already operating at close to their full monetization potential, will continue to grow driven by competitive play and esports;
- console segment would grow if publishers continue to improve in-game spending options and live streaming and esports will be fully embraced by the console segment by 2021.

### **Mobile games**

In March 2018, the app market data company App Annie released that mobile games represented 80% of consumers' spending in 2017 on App Store and Google Play.

According to Newzoo<sup>51</sup>, casual games are still top earners in the global mobile games market. But the global casual games market has reached a point of saturation. It leads giants of casual gaming such as King to expand into traditional genres of PC gaming including Multiplayer Online Battle Arena (MOBAs), strategy games and Massively Multiplayer Online (MMOs). Those new titles can provide more immersive game experience thanks to device innovation and the above-mentioned genres are also competitive, featuring player-versus-player (PvP) modes. It creates more opportunities for tournaments and reward systems (for both physical and digital rewards). Skillz and Amazon GameOn provide application programming interfaces (APIs) that enable developers to build cross-platform competitions in their games to attract new players and strengthen the player engagement with leaderboards and leagues, awards in game and real-world prizes and the creation by players and streamers of their own competitions. Competitive mobile games will foster an esports scene to increase player engagement for their titles.

The global number of smartphones users will reach 3 billion by 2018. By 2021, the total number of smartphone users globally will grow to 3.8 billion (i.e. 48% of the global population). As companies continue to monetize their services, the increasing number of smartphone users is an opportunity for increased revenues. Newzoo estimates that app store revenues from games alone will increase from \$42.5 billion in 2016 to \$106.4 billion in 2021 and that in 2018, direct consumer spending in the global app market will increase to \$92.1 billion, 76% of which will come from mobile games.

AppAnnie forecasts for 2019 that games will provide the most part of the increase of consumer spending in app stores because mobile gaming will remain the fastest growing type of gaming: mobile gaming market share should represent 60% in 2019 thanks to multiplatform gameplay.

---

<sup>50</sup> In April 2018, Newzoo estimated that by 2021 consumer spend on games would grow to \$180.1 billion, with smartphones and tablets combined generating 59% of revenues in the entire market.

<sup>51</sup> Global mobile market – Newzoo – September 2018

## Social Casino Gaming

According to Eilers & Krejci Gaming LLC first quarterly report 2018 tracking the social casino market including total market size and individual publisher key indicators of performance, the global market revenue for social casino gaming approximated €4 billion, increasing 19,8% on the previous year.

## Skin gambling and loot-boxes

In *Understanding Skin Gambling*<sup>52</sup>, Naurus estimated prior to the announcement from Valve<sup>53</sup>, “that \$7.4 billion worth of skins would be wagered worldwide by players across all skin gambling products in 2016.” Skin gambling market size projections before Valve’s announcement in 2016:

- 44,79% on sportsbooks (players bet skins on the outcome of esports matches or on events within those matches);
- 25,8% on jackpot (players bet skins in lottery-style games)
- 13,95% on roulette (players bet skins in roulette-style games)
- 9,88% on other games (raffles, rock-paper-scissors, mystery boxes, blackjack)
- 5,59% on coin flip (players bet skins on the flip of a virtual coin)

In August 2016, Naurus<sup>54</sup> reduced projections of skin gambling’s global handle in 2020 from nearly \$20 billion down to less than \$1 billion, a drop over 90%.

In April 2018, Juniper Research forecasted that loot boxes and skins gambling will reach a total spend of \$50 billion by 2022, up from \$30 billion in 2018. Juniper also estimates that without further counter measures skin wagers placed by minors will surpass \$1 billion globally by 2022. Juniper adds that the mobile sector is the most established games platform for loot boxes.

According to a Parent Zone Report<sup>55</sup> dated June 2018, “[...] one industry expert<sup>56</sup> predicted the total global value of skins gambled in 2018 would reach over £10 billion”.

In October 2018, Luke Graham, contributor to the news site City AM, wrote: “Team Fortress 2 became free to play in 2011 in order to attract more players who might then buy loot boxes. The game’s developer [VALVE] claimed that this tactic increased revenue by a factor of 12”.

In November 2018, Bloomberg<sup>57</sup> released that

- Japanese gacha games (“a form of not-quite gambling in which players pay for mystery in-game prize, typically a special weapon or character outfit”) have generated at least \$55 billion since 2007 according to industry association Mobile Content Forum (MCF) and an analysis of data compiled by Bloomberg.
- Goldman Sachs estimated that loot boxes would generate half of the global video game industry’s \$120 billion in revenue this year.

According to The Telegraph<sup>58</sup>, “a reported \$30bn was spent on loot-boxes in 2018”.

---

<sup>52</sup> Chris Grove, Naurus, 2016

<sup>53</sup> In July 2016, Valve issued cease-and-desist- notices to 23 skin-gambling sites.

<sup>54</sup> Skins in the game, Will Green, Naurus, 2016

<sup>55</sup> Skin Gambling: teenage Britain’s secret habit – A Parent Zone report – June 2018

<sup>56</sup> Chris Grove

<sup>57</sup> The Good Times Are Over for Japan’s Loot-Box-Style Gaming Bonanza – [www.bloomberg.com](http://www.bloomberg.com) – November 5<sup>th</sup> 2018

## **Focus**

### Activision Blizzard 2017 Annual Report<sup>59</sup>

- Net revenues 2017 = \$7.017 billions
- Net revenues 2017 of the Digital online channels (digitally distributed subscriptions, licensing, royalties, value-added services, downloadable content, micro transactions and products) = \$5.479 billions
- Micro transactions = \$4 billion<sup>60</sup>

Micro transactions revenues are derived from the sale of virtual goods and currencies to enhance gameplay experience. The players spend time investing in the company franchises through purchases of game content, whether through purchases of full games or downloadable content via micro transactions.

The wide adoption of smart phones globally and the free-to-play business model on those platforms has increased the total addressable market for gaming significantly by introducing gaming to new age groups and new regions and allowing gaming to occur more widely outside the home.

Mobile gaming is now estimated to be larger than console and PC gaming and continues to grow at a significant rate. King is a leading developer of mobile free-to-play games and the company other business units have mobile efforts underway that present the opportunity to expand the reach of, and drive additional player investment from, its franchises.

Increased consumer online connectivity has allowed the company to offer players new investment opportunities and to shift its business further towards a more consistently recurring and year-round model. Offering downloadable content and micro transactions in addition to full games allows players to access and invest in new content throughout the year. This incremental content not only provides additional high margin revenues, it can also increase player engagement. Also mobile games and free-to-play games more broadly, are generally less seasonal.

### Electronic Arts Inc. Fiscal Year 2018 Annual Report<sup>61</sup>

- Total net revenue \$5.150 billions
- Digital revenue \$3.450 billion (67% of the total net revenue)
- Live services revenues \$2.600 billion (40% of the total net revenue)

Players increasingly purchase games as digital download, as opposed to purchasing physical discs, and engage with the live services that the company provides on an ongoing basis.

---

<sup>58</sup> [www.telegraph.co.uk](http://www.telegraph.co.uk) – “Fortnite removes ‘blind loot boxes’ amid fears they encourage young gamblers”, Tom Hoggins, 28 January 2019

<sup>59</sup> Call of Duty, World of Warcraft, Hearthstone, etc.; Acquisition of King (Candy Crush, Farm Heroes, Bubble Witch etc...) completed on Feb. 2016: King’s games are free to play, however players can acquire in-game items, either with virtual currency the players purchase or directly using real currency.

<sup>60</sup> According to [www.gameindustry.com](http://www.gameindustry.com) “What does 2019 have in store for gaming?” by Gin Staff, January 3<sup>rd</sup> 2019

<sup>61</sup> FIFA, Star Wars, Battlefield, The Sims, etc.

Live services provide additional depth and engagement opportunities for players and include micro transactions, extra downloadable content, subscriptions and esports. The company expects live services net revenue will continue to be material to our business.

The company believes that digital revenue, which generally has a higher gross margin relative to packaged goods revenue, will continue to increase during fiscal year 2019, both relative to packaged goods revenue and in absolute terms as it continues to develop and monetize products and services that can be delivered digitally.

#### Take Two Interactive Software Inc. 2018 Annual Report<sup>62</sup>

- Total net revenue \$1.792 billions
- Digital online revenue \$1.130 billion (63,1% of the total net revenue)
- Net revenue from recurrent consumer spending<sup>63</sup> \$745 million (41,6% of the total net revenue)

The company focuses on building compelling entertainment franchises by publishing a select number of titles for which it can create sequels and on driving ongoing engagement and incremental revenues from recurrent consumer spending on our titles after their initial purchase through downloadable offerings, including virtual currencies, add-on content, micro transactions and online play

It will continue to engage in evolving business models such as mobile and online gameplay, particularly for its wholly owned franchises, as well as virtual currencies, downloadable content and micro transactions that enable gamers to pay to download additional content to enhance their game playing experience.

The company also publishes an expanding variety of titles for tablets and smartphones, which are delivered to consumers through digital download via the Internet, and expects online delivery of games and game offerings to become an increasing part of its business over the long term.

#### Ubisoft 2018 Annual Report<sup>64</sup>

- Total annual sales (April 2017-March 2018) = €1.732 billions
- Annual digital sales, i.e. sale of games or additional content through 100% digital media (downloadable video games, downloadable content (DLC), etc.) = €1.005 billions (58% of total sales)
- Player Recurring Investment (PRI) including sales of digital items, DLC, seasonal passes, subscriptions and advertising = €482,5 million (27,9% of total sales)
- Mobile revenue up 66,2%

---

<sup>62</sup> Rockstar Games (Grand Theft Auto, Red Dead redemption, L.A. Noire, etc...), 2K (Bioshock, Borderlands, Carnival Games, etc...), Social Point (Dragon City, Monster Legend, etc...)

<sup>63</sup> Virtual currency, add-on content and microtransactions

<sup>64</sup> Assassin's Creed, Mario + Rabbids, Rainbow Six, Far Cry, etc.; Signature of a strategic partnership agreement with Tencent to increase Ubisoft games' exposure and engagement in China



### Annex 3 – Available publications

#### **Griffiths, Mark, Gaming Law Review, IS THE BUYING OF LOOT BOXES IN VIDEO GAMES A FORM OF GAMBLING OR GAMING?<sup>65</sup>**

Buying of loot boxes is a form of gambling, particularly because the “prizes” won are (in financial terms) often a lot less than that of the price paid. The virtual items that can be “won” can comprise basic customization (i.e., cosmetic) options for a player’s in game character (avatar) or in-game assets that can help players progress more effectively in the game (e.g., gameplay improvement items such as weapons, armor). All players hope that they can win “rare” items and are often encouraged to spend more money to do so because the chances of winning such items are minimal.

Provides opinions of psychologist Jamie Madigan (believes buying [loot boxes] puts them into the same category of packs of Pokémon cards or baseball cards), UK Gambling Commission (does not consider loot boxes that cannot be cashed in as a form of gambling because the in-game items have no real life value outside of the game), Dirk Bosmans from PEGI (states that loot crates are currently not considered gambling as person always gets something when he purchases them, even if it’s not what he hoped for).

#### **Macey, Joseph & Hamari, Juho. (2018). eSports, skins and loot boxes: Participants, practices and problematic behaviour associated with emergent forms of gambling. *New Media & Society*<sup>66</sup>**

Twenty years since the Internet transformed gambling products and services, the convergence of online games and gambling has initiated a new means of consuming Internet-based media. Gambling specifically connected to eSports is a significant development, not only offering a new avenue for existing gambling products to be inserted into gaming media but also affording several novel experiences (e.g. skins and loot boxes). This study assesses participation rates and demographic characteristics of eSports spectators who gamble via an international online survey (N = 582). The sample highlighted the prevalence of young, often under-age, males in eSports-related gambling activities. Participation in gambling, and gambling-like activities, was found to be 67%, with rates of problematic and potentially problematic gambling in the sample being 50.34%. Finally, increased gambling is associated with increased spectating of eSports. Although the results are not generalisable to the wider population, they suggest a need for increased attention, from academia and regulators, regarding newly emergent gambling behaviours in contemporary digital culture.

#### **Zendle D, Cairns P (2019) Correction: Video game loot boxes are linked to problem gambling: Results of a large-scale survey. *PLoS ONE*<sup>67</sup>**

---

<sup>65</sup> <https://core.ac.uk/download/pdf/146458704.pdf>

<sup>66</sup> [https://www.researchgate.net/profile/Juho\\_Hamari/publication/326433456\\_eSports\\_skins\\_and\\_loot\\_boxes\\_Participants\\_practices\\_and\\_problematic\\_behaviour\\_associated\\_with\\_emergent\\_forms\\_of\\_gambling/links/5b657fa9a6fdcc94a70cbfa9/eSports-skins-and-loot-boxes-Participants-practices-and-problematic-behaviour-associated-with-emergent-forms-of-gambling.pdf](https://www.researchgate.net/profile/Juho_Hamari/publication/326433456_eSports_skins_and_loot_boxes_Participants_practices_and_problematic_behaviour_associated_with_emergent_forms_of_gambling/links/5b657fa9a6fdcc94a70cbfa9/eSports-skins-and-loot-boxes-Participants-practices-and-problematic-behaviour-associated-with-emergent-forms-of-gambling.pdf)

<sup>67</sup> <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0206767>

Loot boxes are items in video games that can be paid for with real-world money and contain randomised contents. In recent years, loot boxes have become increasingly common. There is concern in the research community that similarities between loot boxes and gambling may lead to increases in problem gambling amongst gamers. A large-scale survey of gamers (n = 7,422) found evidence for a link ( $\eta^2 = 0.054$ ) between the amount that gamers spent on loot boxes and the severity of their problem gambling. This link was stronger than a link between problem gambling and buying other in-game items with real-world money ( $\eta^2 = 0.004$ ), suggesting that the gambling-like features of loot boxes are specifically responsible for the observed relationship between problem gambling and spending on loot boxes. It is unclear from this study whether buying loot boxes acts as a gateway to problem gambling, or whether spending large amounts of money on loot boxes appeals more to problem gamblers. However, in either case these results suggest that there may be good reason to regulate loot boxes in games.

#### David Zendle (2019) The prevalence of loot boxes in mobile and desktop

Loot boxes are items in video games that may be bought for real-world money but provide randomised rewards. When buying loot boxes, players stake real-world money on the chance outcome of a future event. Formal similarities between loot boxes and gambling have led to concerns that they may provide a 'gateway' to gambling. In particular, there are concerns that they may provide a gateway to gambling amongst children. However the availability of loot boxes in general, and their availability to children in specific, is unclear. There is no data available to either academics or policymakers when it comes to assessing the prevalence of loot boxes, and how easy to access they are by children. In this piece of research we undertook a systematic review of both the top mobile games on the Google Play store, and the top desktop games on the Steam store. We found that 54% of the top games on the Google Play store contained loot boxes; and 34% of the top games on the Steam store contained loot boxes. Worryingly, many loot boxes were in games that are available to children: 94% of mobile games that featured loot boxes were available in games that are deemed suitable for children aged 12+, amounting to at least 1.3 billion downloads of games that feature loot boxes. Similarly, 35% of desktop games that featured loot boxes were available to children aged 12+. Given the prevalence of loot boxes, we suggest that ratings boards like PEGI and the ESRB consider adding 'loot box' content descriptors to games that feature this mechanism.

#### David Zendle (2019) Only problem gamblers spend less money when loot boxes are removed from a game: A before and after study of Heroes of the Storm

Loot boxes are items in video games that may be paid for with real-world money, but which contain randomised contents. There is a reliable correlation between loot box spending and problem gambling severity: The more money gamers spend on loot boxes, the more severe their problem gambling tends to be. However, it is unclear whether this link represents a case in which loot box spending causes problem gambling; a case in which the gambling-like nature of loot boxes cause problem gamblers to spend more money; or whether it simply represents a case in which there is a general dysregulation in in-game spending amongst problem gamblers, nonspecific to loot boxes. The multiplayer video game Heroes of the Storm recently removed loot boxes. In order to better understand links between loot boxes and problem gambling, we conducted an analysis of players of Heroes of the Storm (n=125) both before and after the removal of loot boxes. Results indicated that, when loot boxes were removed from Heroes of the Storm, problem gamblers – and only problem gamblers – spent significantly less money in-game. There was no observed difference in spending amongst individuals who were not problem gamblers. These results suggest that the presence of loot boxes in a game leads to problem gamblers spending more money in-game. It therefore seems likely that links between loot box spending and problem gambling are not due to a general dysregulation in in-game spending amongst problem gamblers, but rather are to do with specific features of loot boxes themselves.

### **Parent Zone, Skin gambling: teenage Britain's secret habit, A Parent Zone report, 2018<sup>68</sup>**

Set out to understand the scale of skin gambling by UK children, the research shows that, for a large percentage of the UK's 13-18 year-olds, 'skin gambling' is very much part of their culture.

Most of the children who had skin gambled had used real money to do so, mainly using pocket or gift money from parents and family. What parents knew children were doing with the money could vary dramatically.

Age verification technology varies between different websites which offer skin gambling services. This might explain why nearly half of the children stated that they could bypass age restrictions on over-18s websites. Regardless of what children may have to do to access services designed for over-18s – from accepting a site's user agreement to faking age-verification checks – it is clear children believe they can access sites not intended for their use.

### **Gambling Commission. Young people and gambling 2018: A research study among 11–16 year olds in Great Britain. Gambling Commission. November 2018<sup>69</sup>**

The latest annual survey by the Gambling Commission explores gambling behavior among young people in Great Britain.

It found that 14% of 11-16 year olds had spent their own money on a gambling activity in the week prior to taking part in the study. When extrapolated to population figures, the 14% of young people who have gambled in the past week equates to approximately 450,000 11-16 year olds. Gambling in the past week continues to be twice as prevalent among boys (18%) as among girls (9%). The most common gambling activities that young people have spent their own money on in the past week are placing a private bet for money with friends (6%), followed by playing National Lottery scratch cards (4%), fruit/slot machines in an arcade, pub or club (3%) and cards for money with friends (3%).

Much of the gambling activity among this age group takes place in locations that do not require a gambling premises license (for example, playing on fruit machines in pubs or private bets at school or at home). Underage gambling activity is less prevalent at licensed premises such as betting shops, bingo halls and casinos.

Among those who had gambled in the past week, the average spend on gambling activities was £16 from an average disposable income of £28 (money given to them as pocket money or money earned in the past week). Compared to other potentially harmful activities, the rate of gambling in the past week among young people (14%) is higher than the rates of drinking alcohol (13%), smoking cigarettes (4%) and taking illegal drugs (2%).

When gambling participation beyond the past seven days is taken into account, the survey found that almost four in ten children (39%) had gambled in the past 12 months, with the most common types of gambling over this period being fruit/slot machines (17%) and private betting with friends (16%).

Children who had gambled in the past 12 months largely did so to try to win money (46%) and because it is fun (44%). On the other hand, children who had never gambled were most likely to state

---

<sup>68</sup> [https://parentzone.org.uk/system/files/attachments/Skin\\_Gambling\\_Report\\_June\\_2018.pdf](https://parentzone.org.uk/system/files/attachments/Skin_Gambling_Report_June_2018.pdf)

<sup>69</sup> <https://www.gamblingcommission.gov.uk/pdf/survey-data/young-people-and-gambling-2018-report.pdf>

this was because it is illegal at their age (57%), it is not something they are interested in (55%), and it may lead to future problems (41%).

**Computer Games Content Report – Department of Communication and the Arts – Australia - January 2019<sup>70</sup>**

This report summarises insights from a series of in-person and online discussion groups held in Sydney, Melbourne, Wagga Wagga and Ballarat in late June 2018. The discussions focused on key issues in computer games identified by the Department of Communications and the Arts (the Department), seeking to understand community perceptions around the following four areas: loot boxes, simulated gambling, online interactivity and strong themes.

In this project, participants felt that loot boxes containing items that confer in-game advantages did not constitute harmful gambling activity, so long as they: could not be purchased with real-world money, or be traded either within or outside the game for real money. Loot boxes that can be purchased using real-world currency or traded for real currency equivalent were deemed by most to be gambling activity that should be restricted to those over 18 years of age.

**Australia - The Senate, Gaming micro-transactions for chance-based items; Environment and Communications References Committee, 2018<sup>71</sup>**

The study provides an introduction and overview of gaming micro-transactions for chance-based items, recent public concern regarding the issue, and international responses. It also explores whether gaming micro-transactions for chance-based items constitute gambling under Australian regulatory frameworks.

Furthermore, the study examines the evidence received that gaming micro-transactions for chance-based items meet the psychological definition of gambling, and the potential for harms associated with interaction with these mechanisms. Finally, it outlines possible government responses to the issue and provides a committee view and recommendations.

**John Vrooman Haskell, More than just skins(s) in the game: how one digital video game is being used for unregulated gambling purposes online, JOURNAL OF HIGH TECHNOLOGY LAW, 2017<sup>72</sup>**

This study provides a brief synopsis on the new legal issue of skins as they are used as de facto currency for illicit gambling purposes and provide an analysis of the applicable federal statutes that the facilitators of skin gambling could potentially be in violation of. Additionally, this note addressed skin gambling's general lack of player identification systems as used to confirm their users are of legal gambling age within their respective states. It concludes that although the practice of skin gambling has been cracked down on by Valve shutting down the bot accounts of many skins gambling websites, the fact remains that the practice is still occurring in 2017.

---

<sup>70</sup> <http://www.classification.gov.au/Public/Resources/Documents/computer-games-content-research-final-report.pdf>

<sup>71</sup>

[https://www.aph.gov.au/parliamentary\\_business/committees/senate/environment\\_and\\_communications/gamingmicro-transactions/report](https://www.aph.gov.au/parliamentary_business/committees/senate/environment_and_communications/gamingmicro-transactions/report)

<sup>72</sup> <https://cpb-us-e1.wpmucdn.com/sites.suffolk.edu/dist/5/1153/files/2018/04/More-than-Just-Skins-in-the-Game-How-One-Digital-Video-Game-Item-is-Being-Used-for-Unregulated-Gambling-Purposes-Online-2gnwnlv.pdf>

**The Digital, Culture, Media and Sport (DCMS) Committee of the British Parliament** which monitors the policy of the DCMS Department has launched an inquiry into the growth of immersive and addictive technologies. Some contributions are interesting ones to read<sup>73</sup>.

---

<sup>73</sup> <https://www.parliament.uk/business/committees/committees-a-z/commons-select/digital-culture-media-and-sport-committee/inquiries/parliament-2017/immersive-technologies/publications/>