

More Than A Game

An Analysis and Solution to Harmful Gambling Mechanics in FIFA Ultimate Team

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Summary

Since their inception, loot boxes, game items where players pay a real-world fee to unlock a box of randomised in-game content, have become a core pillar of revenue for developers in the video game industry. During this time, the controversy surrounding loot boxes has grown in line with the revenue they have produced, leading to players, scholars, and world leaders alike questioning their place in the video game industry. Discourse has arisen due to the similarities between loot boxes in video games and traditional gambling, and the dangers these similarities pose to players. The controversy has been compounded by the video game industry's refusal to acknowledge these similarities, while continuing to profit from loot boxes. Using *FIFA Ultimate Team* as a case study, I seek to discover in what way gambling mechanics are implemented to be as effective as possible, and how the use of these mechanics in the wider video game industry harms players. I will answer the questions put forward in this research through an analysis of mechanics used in *FIFA Ultimate Team*, as well as analysis of research in the field of loot boxes and problem gambling.

As concern has risen, questions of loot box regulation have grown to prominence. Efforts have been made by the industry in order to self-regulate, however these have not mitigated the controversy surrounding loot boxes. World governments have also attempted regulation with mixed success, but ultimately failing to address the dangers presented to players. While scholars have proposed possible alterations to loot boxes and legislation, making them safer for players, there has been little in the way of possible alternatives to the loot box. Based on my research, I have proposed an alternative to the loot box that protects the health of players, while also providing the financial benefit necessary for developers. I propose that a subscription-based model where players pay a flat fee to access certain content could replace the loot box model that currently exists. Such a model would provide developers with the financial reward they desire, and would remove the need to include paid loot boxes that result in the harm of players.

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1. Introduction

1.1 Motivation:

Over the last ten years, the video game industry has witnessed the rise of micro transactions, in particular the loot box. A loot box is an item where players pay real-world money in exchange for a collection of random in-game content.¹ According to one industry report, loot boxes accounted for just under \$30 billion of video game revenue in 2018, with that number projected to reach \$50 billion by 2022.² In a separate report, the estimated revenue of the global video game market in 2020 was \$159 billion,³ meaning it is safe to conclude based on current trends that loot boxes alone account for a percentage of all video game revenue globally in the vicinity of 18 to 20 percent. Micro transactions now account for more than half of all revenue for some of the biggest developers in the industry.⁴ In 2016, EA reported that Ultimate Team modes from across EA's sports games accounted for roughly \$650 million in annual revenue, half of all digital revenue for the publisher.⁵ As well as this, Ubisoft noted in 2017 that over 80% of their Q1 revenue was generated through digital sales, most of which were micro transactions.⁶

While the market value of loot boxes continues to rise, concerns over the impact that the associated game mechanics have on a players health have grown alongside it. Kourosh Azin notes that excessive exposure to 'manipulative' practices from game developers can lead to problems within the developing minds of younger players.⁷ The issue of gambling mechanics in video games and their links to problem gambling have become a topic of much research and debate in recent years. The use of loot boxes in video games has been linked to problem-gambling issues in players, due in part to the flashy game mechanics used in their implementation, which in many cases are akin to casino lever

¹ D. Zendle, P. Cairns, H. Barnett, C. McCall, 'Paying for loot boxes is linked to problem gambling, regardless of specific features like cash-out and pay-to-win'. *Computers in Human Behaviour*, Vol. 102, January 2020, pp. 181-191.

² 'Loot Boxes & Skins Gambling to Generate a \$50 Billion Industry By 2022', in *Juniper Research*. April 2018, viewed on 18 February 2021, <https://www.juniperresearch.com/press/loot-boxes-and-skins-gambling>

³ Field Level Media, 'Report: Gaming revenue to top \$159B in 2020', in *Reuters*. May 2020, viewed on 19 February 2021, <https://www.reuters.com/article/esports-business-gaming-revenues-idUSFLM8jkJMI>

⁴ K. Azin, 'How Pay-to-Win Makes Us Lose: Introducing Minors to Gambling through Loot Boxes'. *Boston College Law Review*, vol. 61 (4), April 2020, pp. 1577-1612.

⁵ M. Handrahan, 'EA's Ultimate Team earning around \$650 million a year', in *gamesindustry.biz*. March 2016, viewed on 4 March 2021, <https://www.gamesindustry.biz/articles/2016-03-02-eas-ultimate-team-earning-around-usd650-million-a-year>

⁶ J. Brightman, 'Ubisoft's sales are more than 80% digital', in *games industry.biz*. July 2017, viewed on 4 March 2021, <https://www.gamesindustry.biz/articles/2017-07-18-ubisofts-sales-are-more-than-80-percent-digital>

⁷ Azin, *Boston College Law Review*, p. 1587.

games.⁸ Both scholars and policy makers have taken note of the potential harm that gambling mechanics result in, with legislation being implemented in an attempt to mitigate this harm in countries such as Belgium and the Netherlands as a result.⁹ Despite the risks that mechanics such as these pose to players, developers continue to include them prominently in their projects. David Zendle proposes that the relatively low cost of individual micro transactions in games such as *FIFA* (2020) acts as a way of enticing people to justify paying for them and thus entering the games ecosystem.¹⁰

One of the most prominent examples of these type of mechanics are the ‘player pack’ loot box systems found in *FIFA Ultimate Team*. This game system allows players to pay real money to unlock a random selection of in-game footballers and consumables which can then be traded with and sold to other players in-game. *FIFA* is not the only example of this type of practice, *Call of Duty* (2020) and *Fortnite* (2017) are also engaged in similar practices. Due to the size of *FIFA*’s player base, reaching six million active daily players in *FIFA Ultimate Team* alone during December 2020,¹¹ they are one of the biggest names in the game of micro transactions. The harm that the mechanics found in *FIFA Ultimate Team* can potentially cause to players, in particular to young players, must be recognised. If they are as dangerous as some scholars such as David Zendle and Christopher J. Ferguson suggest, then urgent action is required to protect the players most at risk.

1.2 Research Question:

While there is research that connects gambling mechanics such as loot boxes to problem gambling, there is a lack of information on the specific methods used by developers to hook players into their ecosystems, and the techniques used to keep players there. This information would better allow game developers to make responsible decisions about the systems they want to expose their players to, while also giving players the ability to be aware of potentially harmful mechanics when they come across them. *FIFA* acts a perfect case study to examine some of the techniques used in the industry at large, and to understand the extent of their effectiveness. This dissertation seeks to ask what mechanics and techniques do game developers use when creating gambling systems in their games, and what is the specific purpose of these mechanics? As well as a lack of work discussing the methods used by developers in creating these mechanics, there is an equal lack of potential solutions to these problems that work for both game developers and their players. Legal measures have been employed thus far, however these do not solve the issue but rather encourage developers and game studios to look for ways around them. With this being said, the goal of this dissertation is to ask to what extent

⁸ A. Prati, ‘Video Games in the Twenty-First Century: Parallels between Loot Boxes and Gambling Create an Urgent Need for Regulatory Action’. *Vanderbilt Journal of Entertainment and Technology Law*, vol. 22 (1), 2019, pp. 215-250.

⁹ *ibid.*, p. 226.

¹⁰ D. Zendle, ‘Beyond loot boxes: a variety of gambling-like practices in video games are linked to both problem gambling and disordered gaming’. *PeerJ*, vol. 8, July 2020, pp. 1-26.

¹¹ ‘Electronic Arts Reports Strong Q3 FY21 Financial Results’, in *EA*. February 2021, viewed on 19 February 2021, <https://news.ea.com/press-releases/press-releases-details/2021/Electronic-Arts-Reports-Strong-Q3-FY21-Financial-Results/default.aspx>

do gambling mechanics in *FIFA* harm their players, and what are the alternatives to these mechanics that benefit both players and game developers?

1.3 Methodology:

In order to investigate my research questions, this dissertation will firstly, examine the history of gambling mechanics in *FIFA*, from their inception to how they have developed to their current form. This will look at the evolution that the mechanics have undergone and analyse the growing similarities between them and mechanics found in traditional gambling games such as instant win slot machines. Through this analysis, a timeline will be created to show the growth in prominence and financial importance of gambling mechanics in the video game industry, highlighted through *FIFA*. Doing this allows for an understanding of the state of the industry as it stands, and where it could be headed if action is not taken. Secondly, this dissertation will examine the gambling style mechanics most prevalent in *FIFA* to pinpoint which elements of their implementation have the most potential for creating problematic gambling tendencies in players. Once the most problematic elements have been identified, the extent of the harm they may cause will be questioned through critical analysis of research that has been conducted in the field by scholars such as David Zendle, who is one of the most prominent voices in the field on this subject. Finally, through investigation into current attempts at resolving the issues of gambling problems linked with video games, this dissertation will consider potential solutions that both help players and their health, but also reduce the financial detriment to game developers. This will be done through analysis of current measures put in place such as the aforementioned legislation, and to what extent these methods have been effective, as well as examining the proposals from scholars in the field, and industry experts. Ultimately, this dissertation will seek to propose a potential solution to this issue that can lead to steps being taken that will improve the gaming experience of video game players and developers alike.

2. The Making of a Loot Box in FUT

In order to understand the scope of the issue with gambling mechanics in video games, it is important to be aware of how the situation as it is currently has been reached. Using *FIFA Ultimate Team*, hereby referred to as 'FUT', as a case study, the continued growth in use of gambling mechanics in video games will be charted. This will be done through an examination of how these mechanics have changed and been adapted to increase the profitability of the games in which they appear. This examination will be undertaken in order to understand the development of gambling mechanics in non-gambling games, as demonstrated through an analysis of FUT. Through understanding the history of gambling mechanics in FUT, I will highlight how each subsequent edition of the game has included a growing list of addictive features that hook players into the game's ecosystem and keep them wanting to play more. I will also demonstrate how the game uses monetisation features which expose players to advanced persuasion techniques that encourage them to keep spending money. FUT has specifically been chosen as the subject of this analysis due to its history and popularity among players. FUT debuted in *FIFA 09* (2008) and has remained a core part of the *FIFA* experience ever since. Since its inception, the game has undergone a range of development in its mechanics, allowing us to chart the growing sophistication of gambling mechanics in video games. As well as this, the game has grown increasingly popular since its inception, with the *FIFA* series selling over 325 million units according to EA, the developers of FUT.¹² I will perform this analysis with a view to providing a background to what mechanics are used to encourage more money spending among players, and how they have been adjusted over time to be as profitable as possible, regardless of the effects that this has on the player's health.

2.1 History of Micro Transactions in Video Games:

Micro transactions in games as we know them today were first implemented by Microsoft in 2005, culminating in the infamous 'horse armor' incident which saw *Elder Scrolls* (2006) developers Bethesda charge \$2.50 for an outfit that a player's in-game horse could wear. The original concept behind the micro transaction was that it would give players the option to purchase individual in game items for a small fee as opposed to paying a larger fee for a selection of items that they may not be interested in.¹³ While the horse armor incident was mocked at the time, with players outraged at the idea that horse armor was being sold for so much money, the armor still sold.¹⁴ This proved the

¹² 'Electronic Arts Announces Multiplatform EA Sports FIFA Global Expansion', in *EA*. February 2021, viewed on 4 March 2021, <https://www.ea.com/en-gb/games/fifa/fifa-21/news/ea-sports-fifa-global-expansion>

¹³ M. Williams, 'The Harsh History of Gaming Microtransactions: From Horse Armor to Loot Boxes', in *USGamer*. October 2017, viewed on 5 April 2021, <https://www.usgamer.net/articles/the-history-of-gaming-microtransactions-from-horse-armor-to-loot-boxes>

¹⁴ *ibid*.

underlying idea that players would pay for items in games did have merit. Loot boxes, as well as similar micro transaction mechanics, were popularised in mobile games made primarily in China, such as *ZT Online* (2006), a massively multiplayer online video game,¹⁵ before they made their way to the western market where they were first introduced in *Team Fortress 2* (2007).¹⁶ Loot boxes appear in many forms with some appearing as crates, or as literal boxes to be opened. A popular way of presenting loot boxes is in the form of a trading card packet. This form of presentation differs from other methods due to the psychological associations it creates within a player. By presenting loot boxes as trading cards, developers make players associate the loot box with something they view as harmless, disarming them from realising that they are engaging in a gambling system with more dangerous implications than trading cards.¹⁷ The idea of loot boxes presented as trading cards was first used in 2007 in the console game *UEFA Champions League 2006-2007* (2007) where players could earn points to open packs of footballers they could then use in their team, or they could pay real money to unlock packs faster.¹⁸

While developers were initially slow to embrace the idea of loot boxes, the success of the system in games like *FIFA* and *Team Fortress 2* saw a rapid rise in the occurrence of this type of system in games. As more and more developers implemented loot boxes into their games and saw the amount of money that they were generating, it became commonplace to push loot boxes to the forefront of a games experience. In many cases such as *FIFA* and *Star Wars Battlefront II* (2017), both developed by EA, a player's progression in-game is tied to their success in opening loot boxes.¹⁹ Given how dependent the experience of some games is on the use and purchase of loot boxes, this has drawn significant criticism from the gaming community for creating a predatory practice that exploits players. Loot boxes are considered predatory based on the fact that they are primarily marketed to younger players who are more susceptible to the techniques used to encourage higher spending.²⁰ The controversy surrounding *Star Wars Battlefront II*²¹ acted as the catalyst which saw many countries around the world review their gambling legislation in relation to loot boxes. Regulators in Belgium and the Netherlands labelling loot boxes as a form of gambling, meaning that they should not be provided in products where children are a primary audience.²²

¹⁵ Azin, *Boston College Law Review*, p. 1582.

¹⁶ S.T. Wright, 'The evolution of loot boxes', in *PCGAMER*. 2017, viewed on 5 April 2021, <https://www.pcgamer.com/the-evolution-of-loot-boxes/>

¹⁷ D. Zendle, L. Walasek, P. Cairns, R. Meyer, A. Drummond, 'Links between problem gambling and spending on booster packs in collectible card games: A conceptual replication of research on loot boxes'. *PLoS ONE*, vol. 16 (4), April 2021, pp. 1-17.

¹⁸ S. Sarkar, 'EA looks back on five years of the FIFA Ultimate Team juggernaut', in *Polygon*. March 2014, viewed on 19 March 2021, <https://www.polygon.com/2014/3/19/5525710/fifa-ultimate-team-fifth-anniversary-ea-sports-interview>

¹⁹ *ibid.*

²⁰ Prati, *Vanderbilt Journal of Entertainment and Technology Law*, p. 241.

²¹ A. Velzen, 'Loot Boxes - Is the Gaming Industry Involved in a Crap Shoot?'. *Tulane Journal of Technology and Intellectual Property*, vol. 22, 2020, pp. 91-110.

²² Prati, *Vanderbilt Journal of Entertainment and Technology Law*, p. 245.

While controversy has surrounded loot boxes for many years, their techniques for bringing in new users and retaining old ones have become more effective year on year, as is evidenced by the continued engagement of players within FUT. FUT is the prime example for how the industry has developed its loot box mechanics to keep players locked into their ecosystems and get them to keep spending money, even when they are unable to afford it. In FUT, players compete to build the best squad of real-world footballers to compete against other players in online challenges. Players earn coins for every match they play, which they can then use to either purchase new footballers from the in-game marketplace ‘the transfer market’ or to purchase ‘FIFA packs’. These packs contain a randomised selection of footballers, consumable items, and cosmetic items such as new kits for the player’s team. It is within FIFA packs that the loot box mechanics are implemented. The idea behind the presentation of a FIFA pack is that it resembles a pack of collectible trading cards that one would purchase at a storefront. It is noted that there is little association between traditional trading cards and gambling, and this is one of the most dangerous elements of both loot boxes in FUT, but also within the wider genre.²³ By presenting loot boxes as something like trading cards that people tend to think of as harmless, players become disarmed from the dangers of financial loss and possible addiction that are presented by loot boxes.

The economy of games like *FIFA* is built around encouraging players to spend as much as possible. A common way that this is achieved is through offering players the illusion of choice. As has been done in free to play mobile games since their inception, games like *FIFA* will present the player a way of getting what they want, in this case a pack with new footballers in it, for free but in a way that requires a large time commitment. They then offer an alternative that lets the player get what they want much faster for a small fee.²⁴ In games with loot boxes like *FIFA*, the player has no choice in what they are getting, and in essence, are gambling on what they might receive for their money. Research has shown that spending money on loot boxes increases the risk of developing problem gambling habits,²⁵ this risk is exasperated by games that build an ecosystem which makes paying money more appealing than earning high value items through the players own actions and merit.

2.2 Loot Box Mechanics in FUT:

Once a player chooses to engage in purchasing a FIFA pack, the game implements mechanics that encourage further engagement, and by extension spending. Research into casino slot machines has shown that audio and visual stimuli act as powerful reinforcements for players to keep playing.²⁶ In loot boxes, a clear link can be established between the response mechanics in slot machine games and what we now see in games like *FIFA*. The most obvious of these similarities are the visual and audio

²³ Zendle, Walasek, Cairns, Meyer, Drummond, *PLoS ONE*, pp. 1-17.

²⁴ Zendle, Cairns, Barnett, McCall, *Computers in Human Behaviour*, p. 182.

²⁵ *ibid.*, p. 181.

²⁶ K. A. Harrigan, K. Collins, M.J. Dixon, J. Fugelsang, ‘Addictive Gameplay: What Casual Game Designers Can Learn from Slot Machine Research’. *Futureplay '10: Proceedings of the International Academic Conference on the Future of Game Design and Technology*, May 2010, pp. 127-133.

‘rewards’ a player receives every time they open a FIFA pack. When you open a pack on *FIFA*, no matter the value of the items you receive, you will witness a brief but spectacular burst of light and fireworks, as well as upbeat, exciting music, before being brought down a virtual tunnel (figure 1) to see what items you unlocked. This display is made more dramatic and prolonged if you open a pack with a less common player in it, signalling to the player that this pack is more special to the other ones. If you are fortunate enough to open a pack with a high value, you receive a full production to introduce your reward (figure 2). The opening display of lights and sparks is brighter, while also featuring multiple colours to stimulate the player.

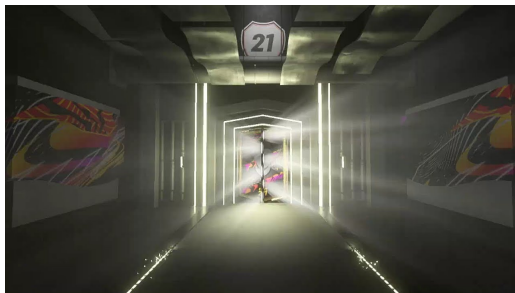


Figure 1.²⁷(Pre-Reveal Tunnel)



Figure 2.²⁸ (High Value Item Reveal)

The process of the item reveals is also extended as now you are shown snippets of information about your reward, such as the footballers nationality, club, and position before reaching the end of the virtual tunnel and the item is finally revealed. Upon this reveal, the player witnesses the item walk onto the screen already wearing the kit of the player’s team along with more exciting music and another large display of fireworks and flashing lights (figure 3).²⁹

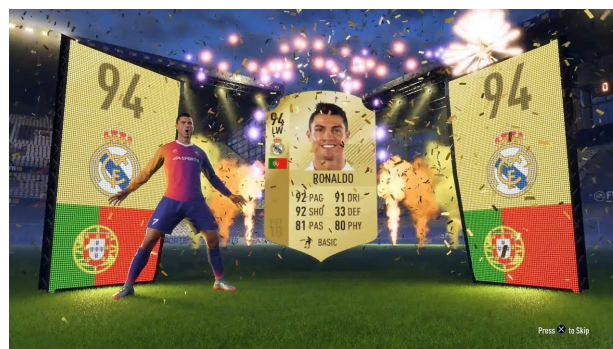


Figure 3.³⁰ (Dramatic Effects Attached to Item Reveal)

²⁷ D. Purcell, ‘Major FIFA 21 pack change will save players thousands of FUT coins’, in *Dexerto*. August 2020, viewed on 19 May 2021, <https://www.dexerto.com/fifa/major-fifa-21-pack-change-will-save-players-thousands-of-fut-coins-1404479/>

²⁸ R. Murphy, ‘FIFA 20 Ultimate Team Pack Odds: What are the chances of getting Ronaldo or Messi in a pack?’, in *Goal*. May 2020, viewed on 19 May 2021, <https://www.goal.com/en/news/fifa-20-ultimate-team-pack-odds-what-are-the-chances-of/1a5vudndnxgcalw2r3norbnrd1>

²⁹ *EA Sport's FIFA 21*, Video Game, Electronic Arts, Vancouver, 2020.

³⁰ fifa17videos, ‘Cristiano Ronaldo Walkout’, in *Wordpress*. August 2017, viewed on 19 May 2021, <https://fifa17videos.wordpress.com/2017/08/05/cristiano-ronaldo-walkout/>

The techniques used to reward players for opening packs in *FIFA* have developed significantly since FUT's inception in *FIFA 09*. In early renditions of the game up to *FIFA 14* (2013), the process of opening a pack closely resembled that of opening a real pack of trading cards, with the added inclusion of sound and light effects (figure 4). As FUT became more popular, the presentation that went into making opening FIFA packs also increased. In *FIFA 14* and *15*, improvements were made to the process with more exciting graphics and more complex light work added to the presentation (figure 5).³¹

FIFA 16 (2015) followed a similar pattern with slight tweaks and improvements being made to the previous year's attempt however, it was *FIFA 17* (2016) where more dramatic changes to the presentation of FIFA pack openings took place, bringing them closer to how they appear today. This version of the game saw the introduction of the tunnel graphic previously discussed, as well as the more prolonged item reveal for rare items. The better the item won by a player, the more dramatic the reward would be, featuring upbeat music, complex flashing lights, and fireworks falling from the rafters of a virtual stadium, all reinforcing to the player that something good has happened.

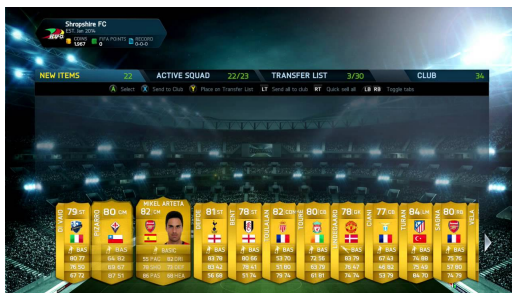


Figure 4.³² (*FIFA 14 Pack Opening Animation*).

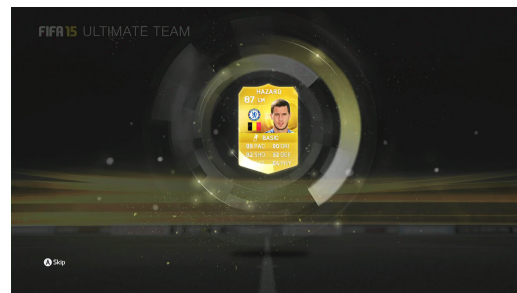


Figure 5.³³ (*FIFA 15 Pack Opening Animation*)

These effects were expanded upon in further entries in the series, each year modifying the presentation in order to make it as appealing as possible to players. The audio and visual rewards received would also be varied based on whether players unlocked exclusive items such as 'FUT Icons' (figure 6) or 'Team of the Year' (figure 7) cards. The presentation for these items would have a more dramatic colour palette as well as more prominent light and firework displays, all indicating to the player that these items were special and they should strive to unlock them.

³¹ ChrisMD, 'I Opened 1 INSANE PACK on Every Fifa from 15-20', in *YouTube*. April 2020, viewed on 4 April 2021, <https://www.youtube.com/watch?v=qQEPC0Ox534>

³² '100,000 COIN SUPER PACKS! - FIFA 14 ULTIMATE TEAM', in *Ava 360 Gaming*. January 2014, viewed on 19 May 2021, https://game.ava360.com/100000-coin-super-packs-fifa-14-ultimate-team-video_5480e6d7c.html

³³ 'FIFA 15 Ultimate Team Screenshots', in *FifPlay*. August 2015, viewed on 19 May 2021, <https://www.fifplay.com/fut-15-screenshots/>



Figure 6.³⁴ (FUT Icon Reveal Effects)



Figure 7.³⁵ ('Team of the Year' Item Reveal)

In comparison to the current rewards given to players when opening packs, the rewards received in early editions of FUT would still be considered reserved, but they act as the foundations of what we now see in-game. The progression in spectacle of the sensory rewards given to players is clear to see in each game.

2.3 Marketing and In-Game Marketplace:

It is worth noting that the increase in production value of opening FIFA packs coincides with the growth of viral videos relating to pack openings becoming a more common occurrence. YouTube stars such as KSI and ChrisMD helped popularise the experience of opening packs through their exaggerated reactions to unlocking highly rated items. One such video which features these reactions from KSI has received 8.5 million views on Youtube in its lifetime.³⁶ Developers are aware of the effect that viral internet trends have on increasing player engagement within their game, and as such have incorporated the idea of 'going viral' into their methods of bringing in new players. This is achieved through sponsorships of popular YouTubers and Social Media Influencers, giving them early access to the latest edition of *FIFA* in order for them to create hype around the game, specifically FUT where these influencers are encouraged to make opening FIFA packs as enticing as possible. The audiences of these influencers are typically young children,³⁷ developers are aware of this and actively exploit it. Research has definitively proven that youth is more susceptible to gambling which games like *FIFA* promote.³⁸ Developers continue to employ this method of marketing for their games irrespective of the dangers posed to their target audience due to the fact that this tactic is extremely

³⁴ K. Bailey, 'How to Enjoy FIFA's FUT 19 Without Spending a Dime - It's Easier Than You Think', in *USGamer*. October 2018, viewed on 19 May 2021, <https://www.usgamer.net/articles/how-to-enjoy-fifas-fut-19-without-spending-a-dime>

³⁵ DazzaYT - FIFA And Football Content, 'OMG TOTY KANTE IN A PACK!! TOTY PACK ANIMATION! FIFA 20 TOTY MIDFIELDERS!!! (Disclaimer - My Mates)', in *YouTube*. January 2020, viewed on 19 May 2021, <https://www.youtube.com/watch?v=rI1-DaXphGU>

³⁶ KSI, 'FIFA 15 - THE MUM PACK', in *YouTube*. September 2014, viewed on 4 April 2021, <https://www.youtube.com/watch?v=4oNjJRQTnh0>

³⁷ A.N. Tolbert, K.L. Drogos, 'Twins' Wishful Identification and Parasocial Relationships with YouTubers'. *Frontiers in Psychology*, vol. 10, December 2019, pp. 1-16.

³⁸ M.K. Wilber, M.N. Potenza, 'Adolescent Gambling: Research and Clinical Implications'. *Psychiatry*, vol. 3 (10), October 2006, pp. 40-48.

profitable, which has been demonstrated in this chapter. The popularity of opening FIFA packs online increases engagement with FUT from players who want to replicate their favourite YouTuber's experience, bringing more new players to FUT where developers can then hook them into the system through the sensory rewards they receive for opening packs in the game. These types of responses to a player's actions from a game encourage repetition of that action in order for the player to feel the same elation they got the first time.³⁹ In the case of loot boxes, as with slot machines, the action that needs repeating is the spending of money.

As is the case with many popular online games, FUT by virtue of its in-game economy, spawned the birth of multiple third-party sites which sell players 'FIFA Coins' for a cost, saving them the time they would need to invest in order to earn the coins. In FUT, there are two currency types that the player can use to engage in the game's economy which are FIFA Coins and 'FIFA Points'. FIFA Coins are only available to be earned in-game through playing games, completing challenges, and selling items to other players. These coins can be used to purchase new footballers for a player's team, new items such as consumable 'contracts', or cosmetic items like football kits.⁴⁰ Coins can also be used to purchase FIFA packs. FIFA Points are the currency that players can purchase using real-world money and cannot be obtained any other way. FIFA Points are used for purchasing FIFA packs, and are also used to access certain game modes such as the 'FUT Draft'. The benefits of coins are that they can be earned for free and, assuming you have enough coins, they can be used to purchase the exact items a player wants. The downside however is that earning coins is slow and requires a significant time commitment to earn a substantial amount. As one member of the *FIFA* community demonstrated, it could take approximately 69 days of non-stop play to earn enough coins to buy a team of the most exclusive players in the game.⁴¹ Points on the other hand require less time as they can be purchased instantly, which allows players to go and buy FIFA packs. The consequences of using points are that they are expensive over time and you cannot guarantee what items you are going to get as the items in FIFA packs are random.

Third party sites, such as MMOGA and FutCoin give players the option to buy FIFA coins for real-world money that they can then use to buy specific items, a practice which is illegal under EA's terms of use.⁴² The sale of coins was achieved by the buyer (the player) agreeing a price for a set amount of coins. These coins would then be deposited in the buyer's account through the form of a transfer market sale where the buyer lists a low value item at a price equal to the amount of coins purchased

³⁹ K. A. Harrigan, K. Collins, M.J. Dixon, J. Fugelsang, *Futureplay '10: Proceedings of the International Academic Conference on the Future of Game Design and Technology*, p. 130.

⁴⁰ S. Sarkar, 'EA looks back on five years of the FIFA Ultimate Team juggernaut', in *Polygon*. March 2014, viewed on 19 March 2021, <https://www.polygon.com/2014/3/19/5525710/fifa-ultimate-team-fifth-anniversary-ea-sports-interview>

⁴¹ T. Hughes, 'Player's 'FIFA Ultimate Team' takes 22,000 hours to earn', in *NME*. March 2021, viewed on 4 April 2021, <https://www.nme.com/news/gaming-news/players-fifa-ultimate-team-takes-22000-hours-to-earn-2902458>

⁴² COPA90, 'How Coin Selling Killed FIFA Ultimate Team', in *YouTube*. October 2016, viewed on 30 March 2021, <https://www.youtube.com/watch?v=g3COWNLkFpo>

that the seller then buys, completing the transaction.⁴³ This practice caused controversy in the *FIFA* community for many years, as players buying coins from third parties resulted in massive inflation on the cost of items,⁴⁴ with many of the top items reaching exasperating prices. To combat this, EA introduced a system of price ranges which meant items could only be sold for a price within a certain range as determined by the value of the item, a decision which made buying coins through a third party almost impossible to achieve without being caught and punished by EA.⁴⁵

The introduction of price ranges while dealing with one issue, created another that reduced player's ability to compete in the game without engaging in *FIFA*'s loot box system. Price ranges meant that the possibility of finding a high valued item for a discount price was eliminated. This prevents players from building a stronger team through a process of buying and selling, forcing them to purchase FIFA packs to have a reasonable chance of obtaining high value players⁴⁶. Decisions such as this limits the player's choices in terms of building the team they want, and dictates a player's need to make a monetary investment in the game to stay competitive. This presents a dangerous situation for adult and child players alike as it creates a sense of obligation to purchase packs and remain competitive. Such an effect is created by the game being a social experience where players constantly interact with other players that may have better items, making players think they need those items to have a chance of winning⁴⁷.

2.4 Limited Time In-Game Events:

A similar sense of obligation exists around timed events which exist in FUT and are a common trope of loot box systems in games, also appearing in other games such as *Fortnite* and *Apex Legends* (2019). Timed events in *FIFA* give the player an opportunity to get special, high value items for a limited period of time in special FIFA packs that are more expensive than regular packs. When a player logs on to FUT during periods when these events are ongoing, they receive constant alerts and reminders that the event is taking place, and in particular, that the event is nearing its end. Time sensitive events convince players that they need to spend money on these packs or they will miss out. This is a particularly dangerous situation for children as it creates a sense of fear that if they do not buy these packs and unlock the higher rated items, they will be excluded from their friend groups. The

⁴³ P. Siuda, 'Sports gamers practices as a form of subversiveness - The example of the FIFA ultimate team.', *Critical Studies in Media Communication*, vol. 38 (1), March 2021, pp. 75-89.

⁴⁴ COPA90, 'How Coin Selling Killed FIFA Ultimate Team', in *YouTube*. October 2016, viewed on 30 March 2021, <https://www.youtube.com/watch?v=g3COWNLkFpo>

⁴⁵ *ibid.*

⁴⁶ *ibid.*

⁴⁷ J. Close, J. Lloyd, 'Lifting the Lid on Loot-Boxes: Chance-Based Purchases in Video Games and the Convergence of Gaming and Gambling'. April 2021

fear of social exclusion is a well documented issue in children⁴⁸, and game loops like timed events in FUT actively take advantage of this to encourage more spending among players in this age group. Players have been documented in expressing the sense of urgency that exists around timed events such as ‘Team of the Year’. During these events, the highest valued items in the game are released for a limited time in FIFA packs, encouraging players to spend large amounts of money to get these items⁴⁹.

Andrew Velzen notes that as of 2011, roughly 91 percent, or 64 million kids between the ages of 2 and 17 play video games in America alone⁵⁰. As video games like *FIFA* do not currently require either gambling licenses or restrictions to block younger players from entering its loot box system, young players are at a high risk of developing problem gambling issues. Young players also face particular danger in relation to the presentation of loot boxes themselves. As has been discussed in this chapter, loot boxes are presented in flashy, exciting packages, offering instant gratification to players that open them. This, paired with the ease of access to FIFA packs and the speed in which they can be opened, takes advantage of the relatively short attention span of children. As noted by Piotr Siuda, when offered the option of spending a prolonged amount of time earning coins and then eventually getting the item you want, or buying a FIFA pack and possibly receiving it immediately, players are likely to take the path of least resistance.⁵¹ This creates a loop where players keep buying more and more packs because of how easy it is to simply buy another pack if you do not get what you want in the first one.⁵² While the mechanics used in making loot boxes more attractive to people have an effect on players of all ages, it is undeniable that they have an especially potent effect on young players, putting them at greater risk of developing problem gambling issues as they grow into adulthood.

2.5 Summary:

In discussing the history of the implementation of micro transactions, as well as the mechanisms and systems employed by developers to make them as appealing as possible, it is clear that these systems have become incredibly sophisticated in encouraging spending from players. In this chapter I have shown how the mechanics behind loot boxes have developed from their inception, and in doing so have highlighted how the use of such systems puts players, particularly younger players, at risk of developing issues with problem gambling. I have highlighted how the in-game economies of games like *FIFA* create social pressures on players that lead to further spending in a race to keep up with

⁴⁸ V. Tobia, P. Riva, C. Caprin, ‘Who Are the Children Most Vulnerable to Social Exclusion? The Moderating Role of Self-Esteem, Popularity, and Non-Verbal Intelligence on Cognitive Performance Following Social Exclusion’. *Journal of Abnormal Child Psychology*, vol. 45 (4), May 2017, pp. 789-801.

⁴⁹ S. Das, ‘Fifa’s ugly game lures teens to gamble’, in *The Sunday Times*. March 2021, viewed on 13 March 2021, <https://search-ebscohost-com.elib.tcd.ie/login.aspx?direct=true&db=ukh&AN=7EH167559985>

⁵⁰ A. Velzen, *Tulane Journal of Technology and Intellectual Property*, p. 95.

⁵¹ Siuda, *Critical Studies in Media Communication*, p 81.

⁵² *ibid.*, p. 81.

other players. These pressures are then calculated and taken advantage of by developers through the use of limited timed events.

Through my examination of the history of FUT, I have shown that FUT, and by extension micro transactions as a whole, have been developed over time to get players to invest as much money as possible in-game, regardless of the effects that this has on the player's mental health.

3. The Real World Impact of Loot Boxes

As chapter 2 has shown, through the process of examining the mechanics of loot boxes, specifically those found in FUT, it is clear that developers of games which incorporate such mechanics take great care to ensure they are as effective as possible. Developers have become skilled in presenting loot boxes in ways that disguise the gambling elements of the mechanics, leading to players suffering the negative mental side effects of gambling, without realising it. By creating systems which are designed to keep players unaware of the fact that they are engaging in gambling style mechanics, players are put at risk of developing problem gambling issues that would affect their day to day lives. This becomes more worrying when players with prior known gambling issues are directed by game developers to engage in loot box mechanics within their games, in particular those which are fundamental to the experience of the game.

In this chapter I will demonstrate the dangers presented to players by micro transaction centric game design. I will do this by performing a qualitative overview of problem gambling data in current scholarly discourse, as well as analysing first-hand accounts of players who have experienced the negative impacts of gambling problems as a result of game modes like FUT. This discussion will specifically identify the danger of games that promote gambling style loot boxes and the consequences it can have for players. Following on from this, I will discuss how developers are aware of the research demonstrating the potential effects of loot boxes to a player's health, and yet have continued with the practice. I will furthermore examine the reasons for the continued use of loot box systems in game modes like FUT, and why they have resulted in game developers being resistant to a change of the system in its current form.

These topics will be examined with the goal of proving that the gambling mechanics found in games like *FIFA*, do have a negative effect on a player's mental health that developers are aware of, and choose to exploit regardless.

3.1 Dangers Presented by Loot Boxes:

In chapter 2, I detailed the specific mechanics used by the developers of FUT to make loot boxes as appealing to players as possible, ranging from the sensory rewards players receive when opening a FIFA pack to the use of time sensitive special events to pressure players into not missing out on exclusive items. The methods discussed in chapter 2 play a key role in the development of problem gambling issues among players, as they mislead them into believing they are playing a harmless game, when in fact they are engaging in activities tantamount to gambling. In *FIFA*, this is done through a system of giving players 'free' reward packs of FUT items when they meet certain in-game criteria, for example, 'Win 5 matches in Divisions Rivals (a competitive online game mode in FUT)'.⁵³ By offering players free FIFA packs to open, the developer aims to hook the player into the

⁵³ *EA Sport's FIFA 21*, Video Game, Electronic Arts, Vancouver, 2020.

loot box ecosystem so they spend money on more packs in search of the emotional high they received from the free pack. Making players complete a task to get the free pack first, no matter how innocuous the task may be, tricks players into thinking that they received this pack on their own merit and in doing so, creates a link between opening FIFA packs and being skilful at the game. Tyler Hamilton notes that players receive a sense of physiological arousal from successful outcomes when opening loot boxes.⁵⁴ This response works to reinforce the idea that opening loot boxes is a good thing to do and should be continued. The link created in *FIFA* means that when players become frustrated about playing the game and turn to buying FIFA packs with their own money, it has been reinforced in them that opening packs is good and is related to having a good level of skill in the game when in fact there is no correlation between opening packs and how skilled a player is at the game.

There are many risks that players are susceptible to when engaging in loot box use, from short term problems such as over-spending, to long term difficulties like problem gambling symptoms,⁵⁵ many of which can be a precursor to gambling addiction. Players that participate in opening loot boxes on a regular basis, a habit that games like FUT are designed to encourage, are more likely to develop issues related to and including problem gambling. The group most at risk of experiencing these issues are young video game players, in particular children and teenagers. Games like *FIFA* are primarily marketed to younger audiences through methods such as the use of teenage actors featured in EA's advertisements for the latest entry into the *FIFA* franchise.⁵⁶ This creates a dangerous situation for unknowing young players to develop severe mental health problems that could have an adverse effect on their lives going forward.

The video game industry has long argued that loot boxes are not gambling and do not cause any harm to their players. The issue of problem gambling developing from games that push loot boxes has become increasingly prevalent in scholarly discourse for the past number of years. Existing research has linked loot box usage to problem gambling issues, with David Zendle reporting a noticeable pattern of people who spend money on loot boxes regularly, also exhibiting symptoms of problem gambling.⁵⁷ Similar findings were reported from a study conducted by Søren Kristiansen and Majbritt Christine Severin, where they noted a correlation between loot box engagement and problem gambling behaviours, this time in adolescent participants.⁵⁸ What these findings show is that players who participate in the purchasing of loot boxes do display problem gambling behaviours. Therefore, by encouraging players to engage in loot box activity, in the case of FUT pushing said activity heavily within their game, game developers are causing harm to their players.

⁵⁴ T. Hamilton, 'Taking a Gamble: Analysing How the Regulation of Loot Boxes in Video Games May Change a Billion Dollar Industry'. *University of Illinois Law Review*, 2020 (2), 2020, pp. 727-ii.

⁵⁵ Zendle, *PeerJ*, p. 4.

⁵⁶ PlayStation, 'FIFA 21 - "Win As One" Official Launch Trailer | PS4', in *YouTube*. October 2020, viewed on 4 April 2021, <https://www.youtube.com/watch?v=wppi4Kjzubk>

⁵⁷ Zendle, *PeerJ*, p. 17.

⁵⁸ S. Kristiansen, M.C. Severin, 'Loot box engagement and problem gambling among adolescent gamers: Findings from a national survey'. *Addictive Behaviours*, vol. 103, April 2020, pp. 1-6.

3.2 Loot Boxes and Risk Taking:

A notable symptom of problem gambling that is exasperated by the presentation and implementation of loot boxes, particularly in game modes like FUT, is a greater tendency towards risk taking and riskier decision making. Players who engage in loot box activity such as FIFA packs in FUT are more likely to take riskier actions in search of the pleasure provided by sensory rewards. A recent study looking into the risk factors of problem gambling in US young adults notes that college age players who frequently use loot boxes have less aversion to monetary losses, meaning they are willing to spend more and as such, are willing to risk losing more in order to receive the reward of finding a rare item.⁵⁹ Such behaviour is encouraged in FUT, where the amount of money that a player spends is not shown, making it easier for players who already have a predisposition to spend more than may be appropriate, to take financial risks.

A higher propensity towards risk taking is compounded by the fact that people who develop problem gambling issues are shown to be less likely to adopt an analytical thinking approach when engaging in gambling like activities.⁶⁰ People who display an analytical thinking approach to situations tend to think through the consequences of their activities using reasonable logic and sense, which in the case of gambling would mean recognising that gambling is a game of chance that cannot be affected by the player's input.⁶¹ People who lean more on 'experiential' thinking tend to be more superstitious and instinctive in their decision making, which in the case of gambling would manifest as someone making the split decision to keep playing a game of chance after losing because they have a 'gut feeling' that they'll win.⁶² FUT encourages players to act on experiential decision making through the likes of limited time special FIFA packs that display the amount of packs available reducing in real time.⁶³ This type of time pressure pushes players to make instinctive decisions to buy more packs on the belief that if packs are selling out, there must be something good inside of them.

3.3 The Effect of Loot Boxes on Young Players:

A common theme among studies researching problem gambling, as well as problem gambling specifically related to video games and loot boxes, is that male participants tend to display higher

⁵⁹ A. King, G. Wong-Padoongpatt, A. Barrita, D.T. Phung, T. Tong, 'Risk Factors of Problem Gaming and Gambling in US Emerging Adult Non-Students: The Role of Loot Boxes, Microtransactions, and Risk-Taking'. *Issues in Mental Health Nursing*, vol. 41 (12), August 2020, pp. 1063-1075.

⁶⁰ T. Armstrong, M. Rockloff, M. Browne, A. Blaszczynski, 'Beliefs About Gambling Mediate the Effect of Cognitive Style on Gambling Problems.'. *Journal of Gambling Studies*, vol. 36 (3), September 2020, pp. 871-886.

⁶¹ *ibid.*, p. 873.

⁶² *ibid.*, p. 873.

⁶³ *EA Sport's FIFA 21*, Video Game, Electronic Arts, Vancouver, 2020.

tendencies towards problem gambling,⁶⁴ and as a result, tend to spend more money engaging in gambling like activities.⁶⁵ Considering the age of FUT's target audience, a large section of the FUT player base have the potential to develop large spending habits, regardless of the possible risk or financial damage it may cause them. Young players, in this case referring to players under the age of 25, are more vulnerable than others to developing problem gambling issues from games like FUT due to their reduced cognitive development. In a study conducted by David Zendle and Heather Wardle, it was found that players aged 16-24 who purchased loot boxes such as FIFA packs were significantly more likely to develop gambling problems than those who did not.⁶⁶ Statistics like this are compounded in games like FUT where due to lack of regulations surrounding loot boxes like FIFA packs, players are exposed to constant advertising and pressure to buy more FIFA packs. Due to the lack of acknowledgement of the similarities to gambling in loot boxes, there is no requirement for FUT to display messages warning of the dangers of loot box spending. This puts players at greater risk of developing problem gambling issues without realising it is happening. Young players are also shown to be more likely to think less about odds and probability in gambling situations, relying more on concepts of luck and fate determining whether they succeed or not,⁶⁷ this type of thinking relates to the concept of experiential thinking previously discussed. Research has shown that when this type of cognitive distortion is indulged in young people, it can lead to the persistence of similar erroneous thinking patterns associated with problem gambling.⁶⁸

Young players who play FUT are put in situations that encourage this style of thinking and put them at greater risk of developing persistent problem gambling issues. An example of this type of situation comes through the reward packs players receive for playing competitive game modes like 'Division Rivals'. In Division Rivals, players compete against each other online in order to gain points that are tallied to divide players into different ranks, starting at 'Division 5' and progressing to 'Division 1'.⁶⁹ The more matches a player wins, the higher they rank and the better rewards they receive, such as FIFA coins and FIFA packs. Game modes like this create the fallacy that playing well will give you packs with better items and create the idea that the better you play, the luckier you'll be. In reality, the

⁶⁴ S.M. Ofori Dei, D.R. Christensen, O. Awosoga, B.K. Lee, A.C. Jackson, 'The Effects of Perceived Gambling Availability on Problem Gambling Severity.' *Journal of Gambling Studies*, vol. 36 (4), March 2020, pp. 1065-1091.

⁶⁵ A. Drummond, J.D. Sauer, C.J. Ferguson, L.C. Hall, 'The relationship between problem gambling, excessive gaming, psychological distress and spending on loot boxes in Aotearoa New Zealand, Australia, and the United States-A cross-national survey'. *PLoS ONE*, vol. 15 (3), March 2020, pp. 1-16.

⁶⁶ H. Wardle, D. Zendle, 'Loot Boxes, Gambling, and Problem Gambling Among Young People: Results from a Cross-Sectional Online Survey.' *CyberPsychology, Behavior & Social Networking*, vol. 24 (4), April 2021, pp. 267-274.

⁶⁷ F. Calado, J. Alexandre, M.D. Griffiths, 'Gambling Among Adolescents and Emerging Adults: A Cross-Cultural Study Between Portuguese and English Youth'. *International Journal of Mental Health and Addiction*, vol. 18 (3), June 2020, pp. 737-753.

⁶⁸ *ibid.*, p. 738.

⁶⁹ *EA Sport's FIFA 21*, Video Game, Electronic Arts, Vancouver, 2020.

packs that high ranking players receive have no more chance of containing high value items than a pack that could be purchased by a low ranking player. Similar thought processes are encouraged to players who do not receive these rewards. These players endure the pressure of believing that they are missing out on high value items for not being good enough, and thus buy the type of packs that high ranking players earn in order to try and match them with the idea that if they buy these packs, they will get to be as good as the top players. Such situations similarly display characteristics of the social pressure concept previously discussed. It has been shown that young people who strive to be part of an 'in' group will try and gain wealth through gambling activities as they perceive this as a pathway to being socially accepted.⁷⁰ In the case of loot boxes, the 'wealth' gained comes in the form of exclusive items unlocked by a player.

A key factor in loot boxes contributing to the development of problem gambling issues in players of all ages is the act of paying for the loot box. The experience of paying for a loot box of a FIFA pack by way of buying the in-game currency required to open them invokes similar psychological responses to traditional methods of gambling, with in-game currency essentially acting as the equivalent of casino chips.⁷¹ A study conducted out of the University of York found that there is a strong link between paying for loot boxes with real money, and harm being presented to players,⁷² a practice that is heavily encouraged within FUT.

3.4 Real World Consequences of Loot Boxes:

Problem gambling as a result of loot box use is not simply a hypothetical issue, with countless first-hand accounts of problem gambling issues being developed as a result of playing FUT being reported since the games inception. One such example as reported by Tom Canton, saw a recovering gambling addict begin playing FUT in order to connect with his friends online. Upon starting the game, he found himself hooked into the system of buying FIFA packs to get new players, with his expenditure increasing during limited time events, and increasing furthermore upon the ban of illegal *FIFA* coin sellers.⁷³ Another player discussed the ease in which they became addicted to opening FIFA packs to improve their team, running up spending in the hundreds without realising.⁷⁴ Although anecdotal, these first-hand accounts demonstrate the findings of the reports discussed thus far in action, and highlight the real danger that players unwittingly face when they enter games such as FUT.

⁷⁰ I. Savolainen, M. Kaakinen, A. Sirola, A. Oksanen, 'Addictive behaviors and psychological distress among adolescents and emerging adults: A mediating role of peer group identification'. *Addictive Behaviors Reports*, vol. 7, June 2018, pp. 75-81.

⁷¹ Zendle, Cairns, Barnett, McCall, *Computers in Human Behaviour*, p. 183.

⁷² *ibid.*, p. 190.

⁷³ T. Canton, 'Spending '£7k' on Packs. The Dark Truth Behind EA Sports' FIFA Ultimate Team Game Mode', in *101GreatGoals*. March 2021, viewed on 30 March 2021, <https://www.101greatgoals.com/top-stories/spending-7k-on-packs-the-dark-truth-behind-ea-sports-fifa-ultimate-team-game-mode/>

⁷⁴ *ibid.*

Furthermore, in the case of the first anecdote mentioned, games like FUT provide a heightened danger of relapse to known gambling addicts entering into the game without being made aware of the risk that a game like FUT presents.

As has been shown in various studies, such as the study conducted by Anthony King et al, the psychological responses, as well as the reliance on features such as variable reinforcement schedules, that traditional gambling and loot boxes use are incredibly similar.⁷⁵ However in the case of loot boxes, these mechanisms are more predatory. Since there are strict regulations on the type of mechanisms that can be used in traditional gambling, techniques such as variable reinforcement schedules must be random and cannot be shown to specifically target an individual player's habits. In video games however there is no such regulation, meaning that developers can target reward schedules to each specific player based on metrics such as their spending habits, or their preferred way of interacting with a game.⁷⁶ In a game like FUT, such a system can be used to see how frequently you log in to FUT, and how often you engage with FIFA packs while you are there, allowing the game to develop a profile on you and determine the best way to push you towards spending as much money as possible. Due to the similarities that exist between traditional gambling and games like FUT, players with pre-existing mental illnesses like gambling addiction are at high risk of being exploited by an activity that bares the same triggers as traditional gambling, but without the regulations in place that aim to protect people.

3.5 Developer Knowledge of the Research:

With the growing volume of research and reports finding notable links between loot box usage and problem gambling issues, it is striking how strongly leaders in the video game industry oppose those links and insist that their practices do not present significant harm to their player base. In 2018 Kerry Hopkins, a Vice President within EA, the company who publish and develop *FIFA*, was quoted as saying loot boxes are “quite ethical and fun” while comparing them to the likes of *Kinder Surprise Eggs*.⁷⁷ In the same meeting with British MPs to discuss the dangers of loot boxes, Hopkins insisted that there is no discernible evidence to suggest that the purchase of loot boxes leads to gambling and that as developers “we think it’s like many other products that people enjoy in a healthy way”.⁷⁸ Meetings like this with government officials prove that developers have been made aware of the research that implicates loot box use in having negative mental health effects on players that use them. Such meetings also highlight the attitude of developers to push forward with their current practices irrespective of the reports indicating the dangers of doing so.

⁷⁵ King, Wong-Padoongpatt, Barrita, Phung, Tong, *Issues in Mental Health Nursing* p. 1064.

⁷⁶ J. Close, J. Lloyd, ‘Lifting the Lid on Loot-Boxes: Chance-Based Purchases in Video Games and the Convergence of Gaming and Gambling’, p. 30.

⁷⁷ ‘EA games: Loot boxes aren’t gambling, they’re just like a Kinder Egg’, in *BBC*. June 2019, viewed on 11 May 2021, <https://www.bbc.com/news/newsbeat-48701962>

⁷⁸ *ibid*.

This strong level of opposition from an industry leader both in the use of loot boxes but also in game development as a whole, demonstrates the importance of loot boxes to developers that incorporate them. The primary driver behind the opposition to acknowledging the similarities between loot boxes and gambling, and by extension the negative effects players endure, is finances. As has been touched upon previously, loot boxes in the gaming industry have generated massive levels of income for developers, with EA alone making \$1.49 billion in 2020 alone across its sports games including *FIFA*.⁷⁹ Given the financial benefit gained by loot boxes in games like *FIFA*, developers are keen not only to maintain the status quo, which sees them operate without governmental oversight or regulation, but to further push players to participate in game modes like FUT, where a large portion of the developer's revenue comes from. As reported by CBC in April 2021, a leaked internal document from EA regarding FUT was publicly revealed, highlighting both the importance of FUT to the developers, but also demonstrating the high level of attention given to maximising the amount of time and money players spend. In this document, it is said that 'FUT is the cornerstone' of *FIFA*,⁸⁰ clearly demonstrating the internal importance of the game mode. Further points in the document detail the importance of driving players into FUT, as well as highlighting some of the ways this will be achieved. These include teasers and messaging about FUT in parts of *FIFA* that do not offer in-game purchase options, and providing more enticing free items when a player starts FUT to 'help them hit the ground running'.⁸¹

This document acts to confirm the fact developers like EA who rely heavily on loot box transactions for their income use tactics in the likes of *FIFA* that have been shown to cause negative effects to their players, contrasting claims to the contrary.

3.6 Summary:

Through the analysis of studies demonstrating links between loot box engagement and problem gambling in video game players, it is clear that there is definite cause for concern with regard to the mental health effects that loot boxes such as *FIFA* packs are having on players. This chapter has shown the ways that the problem gambling issues discussed are manifested and, in many ways, exploited by developers that encourage loot box use in their games.

As well as this, I have demonstrated that game developers are very aware of the research linking their practices to problem gambling issues in players, but continue without change due to the financial benefit provided by the purchase of loot boxes. I have noted that this is particularly concerning given the way that games like *FIFA* are marketed primarily to a younger player base, who in this chapter have been shown to be especially vulnerable to the negative mental health issues associated with loot boxes. Furthermore, I have demonstrated here how the likes of FUT exploit the cognitive distortions

⁷⁹ E. Johnson, K. Ivany, 'Video game giant EA steering players into loot-box option in popular soccer game, insider says', in *CBC*. April 2021, viewed on 11 May 2021, <https://www.cbc.ca/news/gopublic/fifa21-loot-boxes-electronic-arts-1.5996912>

⁸⁰ *ibid.*

⁸¹ *ibid.*

found in children in order to keep them playing longer and spending more, irrespective of the potential persistent problems these players may suffer in the future.

A clear and present danger exists to all players who engage in loot box activity. Developers of games like FUT that highly encourage this activity are aware of this fact and knowingly continue an exploitative practice that endangers their audience due to the financial benefit reaped. With controversy surrounding loot boxes and their effects on players growing constantly, it is unavoidable that stricter controls on how loot boxes are implemented will be demanded, and based on what has been shown here, such controls are increasingly necessary.

4. Finding a Solution to The Loot Box Conundrum

Over the course of this dissertation, I have established the dangers currently being faced by players who interact with loot boxes and highlighted the need for urgent change to the way loot boxes are implemented. However, I have also shown the importance that loot boxes have for developers, with many developers such as EA now relying on the income provided by them. With such strong financial pressure, it is understandable why game developers are resistant to measures that could reduce their ability to make money from their titles. Given the dangers that players face, a solution to the loot box conundrum is required as soon as possible. However, such a solution has to both protect players from greater risk of developing problem gambling issues, while also being agreeable to the game studios who will be affected by any such proposals.

Many solutions have been proposed to this growing problem from within the games industry, as well as from scholars and governments. In this chapter I will discuss the measures that currently exist to combat the negative effects of loot boxes on players and I will examine their effectiveness as well as the flaws in the solutions they propose. Furthermore I will analyse the solutions proposed by scholars in the field attempting to address the problem. Following this, I will propose potential solutions to the loot box problem based on findings provided thus far in this dissertation. These proposals will implement elements of previously proposed solutions that are deemed beneficial. This will serve to meet the aim of this chapter which is to provide potential solutions to the loot box conundrum that improve the safety of players while also addressing the concerns of developers about such measures.

4.1 Industry Approach Towards Loot Box Regulation:

While developers of games like FUT have been resistant to addressing concerns surrounding loot boxes, they have bowed to pressure in certain situations and applied a range of measures to games in order to address the dangers of loot boxes. As well as measures implemented by developers themselves, governments worldwide have begun to involve themselves in the practice of selling loot boxes in recent years. The video game industry has historically been vehemently opposed to the interference of government in the creative process of game making, as shown by the formation of the ESRB in the USA. The ESRB, or Entertainment Software Rating Board, is responsible for monitoring and rating content in video games. The ESRB was formed in 1994 by the video game industry as a form of self-governance in order to avoid the US government being responsible for deciding what games are appropriate or not to be consumed by audiences.⁸² A similar organisation set up in 2003 named PEGI, or Pan European Game Information, provides the same service of self-regulation in 38

⁸² Noclip - Video Game Documentaries, 'How Does the ESRB Rate Video Games?', in *YouTube*. November 2019, viewed on 9 May 2021, <https://www.youtube.com/watch?v=TaB-Tp4G6WI>

nations across Europe.⁸³ The game industry went as far as to set up its own independent content regulators in order to avoid governmental meddling or interference, highlighting the determination of the industry to avoid government interventions and solve any issues within the industry themselves. This level of resistance is what led to the introduction of measures aimed at mitigating risks to players associated with loot boxes, while also attempting to deter world governments from involving themselves in the situation.

One of the more publicised measures brought in by developers in their games was the introduction of probability ratings attached to different types of loot boxes. This is a system in which players can see the probability of getting certain types of items in each loot box they open.⁸⁴ In the case of FUT, this presents itself by allowing players to see the percentage likelihood of opening a pack with players of a certain threshold. For example, a FUT pack could have a 20 percent chance of containing an item rated '79' or above, and a 3 percent chance of containing an item rated '84' or above.⁸⁵ For context, item ratings in FUT are scored on a 100 point system, with poor quality items being rated as low as '47' and high quality, rare items such as a standard Cristiano Ronaldo item being rated at '92' in FIFA 21.⁸⁶ The introduction of loot box probabilities was one of the video game industry's attempt to self-regulate and address the concerns of the public, however this system has proven to be much less effective than would have been hoped. As noted by James Close and Joanne Lloyd, the use of odds and probabilities are not transparent and in many cases are not comprehensible to players of any age.⁸⁷ The implementation of probabilities for loot boxes has furthermore been ineffective due to the fact that in many cases, the odds of getting certain items is variable, as certain items may be considered high quality as a loot box prize but is actually rated quite lowly in-game or in the in-game marketplace.⁸⁸ Such an occurrence is common in FUT where players receive an item potentially rated highly, however has a poor reputation and market value in-game. This is accentuated by the fact that the use of odds in a game like FIFA to indicate a player has a certain chance of obtaining an item above a certain rating, doesn't inform the player on how likely they are to get items that they want, such as a Cristiano Ronaldo, therefore making the system confusing at best and redundant at worst. Another effort made by the video game industry to assuage the concerns of players was the introduction of special labels attached to games. As part of their responsibility to self-regulate the industry, the ESRB and PEGI introduced the 'random items' and 'in-game purchases' labels which indicates that a game contains micro transaction mechanics.⁸⁹ This attempt has merit conceptually as

⁸³ 'The PEGI Organisation', in *PEGI*. Viewed on 19 May 2021, <https://pegi.info/page/pegi-organisation>

⁸⁴ J. Close, J. Lloyd, 'Lifting the Lid on Loot-Boxes: Chance-Based Purchases in Video Games and the Convergence of Gaming and Gambling', p. 33.

⁸⁵ *EA Sport's FIFA 21*, Video Game, Electronic Arts, Vancouver, 2020.

⁸⁶ *ibid.*

⁸⁷ J. Close, J. Lloyd, 'Lifting the Lid on Loot-Boxes: Chance-Based Purchases in Video Games and the Convergence of Gaming and Gambling', p. 33.

⁸⁸ *ibid.*, p. 33.

⁸⁹ *ibid.*, p. 34.

it informs players before buying a game that the ability to obtain ‘random items’ exists within a game, allowing them to make a more informed choice. However, this solution has been criticised for a number of reasons. Notably the label system does not implement age restrictions, with many games that receive the ‘random items’ label still being accessible to children and young players, the area of the player base most at risk of suffering adverse effects to loot box use.⁹⁰ Furthermore, the use of the term ‘random items’ is vague and somewhat misleading. While ‘random items’ is a good term to refer to the many forms of micro transactions that exist, not just loot boxes, that term alone does not give the player any information about how these random items are obtained, what they might cost, or their importance to the experience of the game. As Leon Xiao correctly points out, this label term does not carry the same inherited meaning as ‘gambling’ or ‘violence’ on labels, terms where consumers have more inherent awareness of the meaning.⁹¹ As well as this, research suggests that consumers and players find ratings and labels on games in their current form to be confusing, leading to labels being ignored or misunderstood.⁹²

Beyond these measures, the industry itself has not been proactive in delivering a solution to the loot box situation. A measure that has been taken by some developers has been to exclude loot boxes entirely. Other games have removed loot boxes retroactively, or replaced them with versions of loot boxes that contain only cosmetic items and cannot be purchased with real money, as was the case with *Star Wars Battlefront II*. However, often in these cases, such moves are a result of intense public pressure.⁹³ While the choice to not include loot boxes is popular among players, and removes the risk associated with them, there has yet to be a viable alternative presented. As has been discussed, loot boxes generate significant amounts of money, and as such have become crucial to the survival of many developers. Removing them outright without an alternative to the profits made would result in many developers becoming financially untenable. One way to potentially solve this could be to raise prices of games. However, such moves are often met with the ire of players. Furthermore, many smaller developers are not in a position to raise prices in what is an extremely competitive market, meaning they must offer access to their games for free and rely on in-game purchases afterwards to be successful. This paired with the success larger developers like EA continue to have with these mechanics mean simply not having loot boxes anymore is not possible.

⁹⁰ L. Xiao, ‘ESRB’s and PEGI’s Self-Regulatory ‘Includes Random Items’ Labels Fail to Ensure Consumer Protection’. *International Journal of Mental Health and Addiction*, 2020, August 2020, pp. 1-4.

⁹¹ *ibid.*, p. 2.

⁹² D. Felini, ‘Beyond Today’s Video Game Rating Systems: A Critical Approach to PEGI and ESRB, and Proposed Improvements’. *Games and Culture*, vol. 10 (1), 2015, pp. 106-122.

⁹³ M. Gault, ‘Star Wars Battlefront II Officially Ditches Loot Boxes’, in *Vice*. March 2018, viewed on 19 May 2021, <https://www.vice.com/en/article/3kj85n/star-wars-battlefront-ii-officially-ditches-paid-loot-boxes>

4.2 Government Intervention:

The lack of substantial action on the part of the video game industry has led to governments involving themselves in the situation. Regulators in countries such as the Netherlands and Belgium have instituted high profile legislation in order to regulate the use of loot boxes and micro transactions within their jurisdictions. In the case of the Netherlands, the Netherlands Gaming Authority (NGA) instituted a ban on loot boxes after a review of 10 games that featured them.⁹⁴ Crucially however this ban only extended to games where players could sell items received in loot boxes for real-world currency. This meant that games such as FUT were originally exempt from the Dutch ban as it did not meet the criteria of what constitutes gambling according to the new law.⁹⁵ Similar proceedings were brought forward in Belgium, with the government there banning all loot boxes that require a monetary transaction to obtain, a ruling that included paid loot boxes such as those seen in FUT, regardless of whether players could ‘cash out’ or not.⁹⁶ Measures taken up by the Dutch and Belgian governments display benefits to players, however there are notable shortcomings with these solutions. In the Dutch case, not including games such as FUT is a miscalculation which leaves players fully exposed to loot box systems which have shown thus far in this paper to present clear danger to players. The Belgian solution has proven somewhat more effective with many developers adjusting their games to meet the new criteria. An exception to this is EA who refused to modify their games, resulting in the Belgian government taking legal action.⁹⁷ The general reaction from players in Belgium after the ban on loot boxes was positive with many happy to see them gone.⁹⁸ While in both cases the legislation in Belgium and the Netherlands has provided benefits to players, it does create the possibility that developers will now create new systems to replace loot boxes that could be as harmful as what can currently be seen. By forcing loot boxes out of games without providing an alternative for developers that also protects players, it creates the need for developers to recoup their losses in different ways. As well as this, there have been inconsistencies in the ways in which these laws have been applied to different games, with games such as *Team Fortress 2* escaping the new regulations in Belgium even though they share similar mechanics to FUT.⁹⁹

While the actions taken in Belgium and the Netherlands are the most high-profile of recent years, other countries have taken actions of their own. In China and Japan, broad regulation to ban loot boxes outright has been implemented in an effort to curb the effects of such systems on players in these regions.¹⁰⁰ Although measures in China have specifically been commended for the benefits

⁹⁴ A. Brewer, ‘The Hunt For Loot: Proposed Solutions to More Effectively Regulate Addictive Gambling Mechanics in Video Games’. *Journal of Law & Policy*, vol. 29 (1), 2020, pp. 158-201.

⁹⁵ *ibid.*, p. 166.

⁹⁶ Prati, *Vanderbilt Journal of Entertainment and Technology Law*, p. 246.

⁹⁷ *ibid.*, p. 247.

⁹⁸ ‘Gaming loot boxes: What happened when Belgium banned them?’, in *BBC*. September 2019, viewed on 19 May 2021, <https://www.bbc.com/news/newsbeat-49674333>

⁹⁹ J. Close, J. Lloyd, ‘Lifting the Lid on Loot-Boxes: Chance-Based Purchases in Video Games and the Convergence of Gaming and Gambling’, p. 32.

¹⁰⁰ *ibid.*, p. 32.

brought to players, they have also been criticised for the prominent loopholes that allow developers to circumvent elements of the regulation if they are creative.¹⁰¹

Other countries such as the USA and the United Kingdom have brought discussions about loot boxes into the limelight, with the UK holding hearings on whether loot boxes should constitute as gambling. In the USA, discussion have not progressed as far due to the considerably higher level of lobbying by the video game industry on politicians to prolong the discussion and prevent regulatory action. In saying this, efforts in a number of states to pass legislation regarding the regulation of loot boxes have been attempted, leading to further discussion taking place on the possibility of government intervention in the sale of loot boxes in the USA.¹⁰²

4.3 Potential Solutions by Scholars in the Field:

In light of years of inactivity on behalf of the video game industry itself, as well as dissatisfaction with the effectiveness and quality of government led interventions, many scholars who have researched the issues surrounding loot boxes have proposed their own solutions. These solutions range from adjustments to existing laws, to brand new laws, to solutions outside of the legal framework.

David Zendle has suggested the likes of the ESRB and PEGI update their regulations to include more accurate content descriptors for games containing loot boxes, while also proposing that governments restrict games containing loot boxes to those of legal gambling age.¹⁰³ This type of common sense approach is one that is reflected by many in the field, such as Rebecca McDonough, who expands on the idea by proposing the ESRB include distinctive warning labels in a unique colour like red to inform consumers that a game contains micro transaction systems.¹⁰⁴ This type of approach is one that works in principle, however has the potential to fall short of its desired impact. One of the most prominent issues with restricting the game based on gambling ages is that young players are still capable of accessing age-restricted games. Young players access age-restricted items through the use of fake accounts, using accounts of players who meet the legal age, or simply through parents and guardians having different definitions for what is appropriate for children. As the ESRB president Pat Vance notes, different parents have different opinions on what content is suitable for their children,¹⁰⁵ meaning that adding an age restriction to a game, in many cases does not necessarily restrict the audience it reaches as intended. As well as this, such a system ignores vulnerable players who are of legal age to partake in gambling but who are vulnerable to its effects. Warning labels as proposed by Zendle and McDonough could partially prevent this, however their effectiveness cannot be

¹⁰¹ Prati, *Vanderbilt Journal of Entertainment and Technology Law*, p. 244.

¹⁰² Brewer, *Journal of Law & Policy*, pp. 177-185.

¹⁰³ Zendle, Cairns, Barnett, McCall, *Computers in Human Behaviour*, p. 190.

¹⁰⁴ R. McDonough, 'Loot Boxes: It's a Trap'. *Northern Kentucky Law Review*, vol. 46 (1), 2019, pp. 62-86.

¹⁰⁵ Noclip - Video Game Documentaries, 'How Does the ESRB Rate Video Games?', in *YouTube*. November 2019, viewed on 9 May 2021, <https://www.youtube.com/watch?v=TaB-Tp4G6WI>

guaranteed. Crucially they would also rely on the likes of the ESRB to take a firm stance on defining loot boxes as gambling, something they have been against doing for as long as controversy surrounding loot boxes has existed.¹⁰⁶ The idea of implementing regulatory action against loot boxes is one that is shared by many in the field including the likes of Andrew Brewer and Alexandra Prati. A common theme among these suggestions is that governments and regulatory bodies need a strict and complex set of legislation and rules in order to prevent loot boxes from reaching vulnerable players, in some instances suggesting they be removed altogether.¹⁰⁷ As mentioned previously however, such suggestions appear to be unrealistic given the logistical and financial realities of the situation surrounding loot boxes.

Other recommendations that have been proposed to combat the dangers of loot boxes include allowing players to set spending limits on games,¹⁰⁸ as well as removing the possibility of players receiving duplicate items from loot boxes which for all intents and purposes, have no value to the player.¹⁰⁹ Measures such as these have a higher probability of success as developers have less reason to be opposed to them. By introducing the idea of spending limits, developers are not being asked to change their own practices, but merely giving agency to the player as to how much they want to engage with them. The benefit of this for the player is that it allows them to prevent themselves from spending their way into debt. Similarly, by removing duplicate items from players rewards, players are guaranteed to get a new item in each box or pack, meaning they may spend less time and money attempting to get something they have not seen before.¹¹⁰ In their paper, King and Delfabbro go on to recommend further measures to create a responsible system of loot box use through the likes of two factor purchase requirements and loot box probabilities not being based on player behaviour.¹¹¹ Measures like this, as well as suggestions put forward by other members of the academic community offer potentially beneficial solutions to continued use of loot boxes. However, while these solutions may reduce some of the issues with loot boxes, no alternatives to the loot box have been proposed. In both the academic community as well as the video game industry and governments, the focus has been on either how to make loot boxes better for players, or how to get rid of them entirely. Little consideration has been given to the idea of providing alternatives to loot boxes that provide the financial benefits sought by developers, but keep players from suffering mental harm and distress.

¹⁰⁶ Hamilton, *University of Illinois Law Review*, pp. 727-ii.

¹⁰⁷ Brewer, *Journal of Law & Policy*, pp. 197.

¹⁰⁸ J. Close, J. Lloyd, 'Lifting the Lid on Loot-Boxes: Chance-Based Purchases in Video Games and the Convergence of Gaming and Gambling', p. 37.

¹⁰⁹ D.L. King, P.H. Delfabbro, 'Video Game Monetization (e.g., 'Loot Boxes'): a Blueprint for Practical Social Responsibility Measures'. *International Journal of Mental Health and Addiction*, vol. 17 (1), February 2019, pp. 166-179.

¹¹⁰ *ibid.*, p. 172.

¹¹¹ *ibid.*, p. 171.

4.4 An Alternative Proposal:

A common flaw in proposals put forward to this point is that they either help players by restricting developers' ability to monetise their games, or they attempt to protect developers' rights while protecting players, but ultimately do not prevent the loot box systems that are associated with player's issues. As has been discussed in the previous chapter, the act of paying real-world money in return for a box or pack of randomised items is fundamental in players developing problem gambling issues. Building on the work and proposals put forward by world governments and scholars thus far, a possible solution that could benefit both the players and the developers is a subscription-based model. By replacing the process of paying for individual loot boxes which is linked to problem gambling issues in players,¹¹² with a model where players can pay a flat fixed rate each month to access special rewards in-game, players face less danger to their mental health playing games while the financial impact to developers is mitigated. In practice, a subscription-based model would allow all players to enjoy a game without the risk of developing problem gambling issues. However, it also provides the opportunity to monetise their products in-game by offering special rewards to players who want to pay to access that content.

Using FUT as an example, one of the key features of this system is that players would no longer have to pay for loot boxes. Even in a game where the game loop of opening packs to add items to your team is crucial such as it is in FUT, this system can be implemented. FIFA packs, and the idea of boxes containing random items as a whole would not disappear, however players would earn them as opposed to paying to open individual packs. Making players earn loot boxes through standard play as proposed by King and Delfabbro, means that all items in the game would be accessible through gameplay alone.¹¹³ Although this is technically achievable within games like FUT already, obtaining higher value items would have to be made more attainable since the option of purchasing a loot box and hoping for the best would no longer be present. Developers would account for the loss of income from loot box sales through the option for players to subscribe to a 'premium' version of the game. This premium subscription could give players access to exclusive rewards such as special cosmetic items or access to a limited number of bonus packs per month, for example a player could receive 5 extra FIFA packs a month for subscribing. Crucially, any subscription model should not provide a distinct advantage to one player over another in order to prevent an element of classism from forming where wealthier players can 'pay to win' or use money to gain an unfair game advantage.¹¹⁴ Using a subscription system in this way means that all players can enjoy a game without being directed to spend money on a game system that will harm them. As well as this, it would allow players who want to be more involved in the game to get that experience in a way that prevents personal harm, and supports the financial needs of the developer. A system of this nature could be applied to any game that employs loot boxes as a game mechanic. Elements of previously suggested solutions such as standardised odd probabilities for success in opening packs could also be implemented in this system as a measure to further improve transparency for players. As well as this, should developers adopt

¹¹² Zendle, Cairns, Barnett, McCall, *Computers in Human Behaviour*, p. 190.

¹¹³ King, Delfabbro, *International Journal of Mental Health and Addiction*, pp. 170.

¹¹⁴ Azin, *Boston College Law Review*, p. 1583.

such a system, it allows for regulatory bodies like the ESRB and PEGI to more efficiently regulate games without the controversy of having to take a stand on paid loot boxes. In saying this, suggestions by scholars for methods of regulating the use of loot boxes in their current form should be considered even with a proposed subscription model. Regulation would protect players from games that do not adopt a non harmful approach to their game design, while also encouraging other developers to adopt the new system.

While this proposed model could prove to be the way forward for players and the video game industry, there are criticisms that could be levied towards it. Chief among these is the question of whether or not players would support a subscription model. The evidence of players willingness to adopt subscription models in the game world may lie in the growing number of video game streaming platforms that have arisen in the last number of years. Services such as XBOX Game Pass, PlayStation Now, and even EA Play, where players pay a monthly subscription to access a library of games, have grown in number and have become significantly more prominent in recent years. In April 2021, it was reported that XBOX Game Pass had an active subscriber base of over 23 million players.¹¹⁵ PlayStation Now had a notably lower but not insignificant subscriber base of 2.2 million players in May 2020, double the number of subscribers from the previous year.¹¹⁶ This level of engagement shows that subscription models appeal to players, and as such, indicates that players who have a particular affinity to a certain game like *FIFA* may be open to the idea of engaging in a subscription model.

Another important question that a model like this raises is, would developers get on board? Developer use of techniques such as season passes where players pay a fixed sum and get access to exclusive post release content, shows that they are willing to engage in systems like the one proposed here. The biggest barrier to developers engaging with a subscription model is the level of income they stand to make from it. It is likely the income made from this type of model would be less than they currently make from loot boxes, however there are potential ways to mitigate this. One such way would be the use of alternative micro transaction options in-game that don't use loot box techniques. In the case of FUT these micro transactions could take the form of allowing players to purchase specific items for a set cost. The potential downside of this solution however could be disparity between players based on their wealth as discussed previously. This could be counteracted by only making items that do not affect the gameplay and result of a game purchasable as micro transactions, as has been proposed by scholars in the past.¹¹⁷ In this way, developers could make up the difference in income from loot box purchases, while also protecting players and receiving public acclaim for removing a gameplay mechanic that has proven controversial in the last number of years.

¹¹⁵ B. Reeves, 'Xbox Game Pass Hits 23 Million Subscribers', in *ScreenRant*. April 2021, viewed on 19 May 2021, <https://screenrant.com/xbox-game-pass-subscriber-count-tops-23-million/>

¹¹⁶ T. Lyles, 'PlayStation Now hits 2.2 million subscribers', in *The Verge*. May 2020, viewed on 19 May 2021, <https://www.theverge.com/2020/5/19/21263492/sony-playstation-subscribers-active-users-ps4-subscription>

¹¹⁷ King, Delfabbro, *International Journal of Mental Health and Addiction*, pp. 171.

4.5 Summary:

In this chapter, I have analysed both current measures aimed at reducing the dangers of loot boxes, as well as measures proposed by experts in the field to protect the mental health of players. While many of the solutions put forward have strong potential to help solve the issues associated with loot boxes, they fail to consider the desires of the developers. Developers are required to make as much money as possible from their projects in order to satisfy their own interested parties, as well as account for the rising cost of development of games. In order for any measure to prove successful, developers need to support it, otherwise they will find ways to circumvent it. This is why I have proposed a potential solution in the form of a subscription-based model that takes the core steps required to protect players from problem gambling issues, while also taking into account the financial needs of developers. In doing so, I have created a system that is appealing to both parties, and reduces the need to use and promote harmful game mechanics. The success of such a solution ultimately depends on the commitment of developers and players alike to engage with it, however it is a first step in the right direction. A system such as the one proposed here takes a step towards creating a way for players to enjoy games without having to risk their mental health, while also giving developers the resources they require to keep producing games that players enjoy, at the quality that they expect.

Conclusion

This dissertation sought to understand the ways that game developers implement loot boxes in their games, and why they implement mechanics that create dangerous habits. Through analysis of the *FIFA* series since the inception of FUT, I highlighted the mechanics that are fundamental in making FUT's loot boxes engaging, but also addictive. Based on examination of studies undertaken by prominent scholars in the field such as David Zendle, this dissertation established a clear association with loot box use, and problem gambling tendencies in players, particularly young players. Furthermore, I demonstrated evidence that the developers of *FIFA* have been aware of this association for many years. This is compounded by the fact that they have failed to take meaningful action towards mitigating the risk faced by players due to the impact such action would have on the game's financial performance. The ultimate aim of this dissertation was to provide a solution to the problem posed by loot boxes to the video game industry that gives protection to players while providing incentives to developers to leave loot boxes behind. By considering measures already taken by the industry and world governments, as well as through analysis of possible solutions by scholars such as Daniel King and Paul Delfabbro, I have proposed a new solution to the loot box problem in the form of a subscription-based model. Such a model would allow developers to maintain income lost by no longer using loot boxes, while also removing the risk loot boxes pose to players. This model was devised based on research into the effects of loot boxes on player's mental health, as well as through research into the financial importance of loot boxes to the video game industry, with the aim of satisfying the needs of both parties. Such a model has basis in the current state of the industry to be a possible success, and in proposing this model, the goal of this dissertation has been achieved.

While in this dissertation I have proposed a possible alternative to loot boxes that benefits both players and developers, it is merely a first step. What is evident however is that loot boxes do have the potential to cause harm to the players who interact with them, either voluntarily or out of necessity based on how a game is designed. As pressure mounts on the industry to regulate loot boxes itself, as well as world governments to intervene, it is clear that loot boxes as we know them today will change in the near future. While this change is inevitable, the form it takes is still to be determined. Continued research into loot boxes further highlights the risks associated with them, especially to younger players, meaning the question faced by governments, the video game industry, and scholars should no longer be 'do loot boxes cause harm to players' because we now know they do. Instead, the question that these parties should look to answer is 'how do we prevent this harm in the future?'. The industry, in cooperation with world governments and scholars in the field, must turn their attention to creating a sustainable model that allows developers to make the money they need to account for rising development costs, but does so without putting the health of their players at risk. Be it through a subscription model as proposed in this dissertation or otherwise, the response to the challenge posed by loot boxes will shape the video game industry for years to come.

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