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Abstract

The research paper covers the legality, psychological, and monetary aspects of Loot boxes. My research question is what are the major challenges with purchased loot boxes in video games.

The participants are me and my method of research was statistics and statements from multiple sources that were put together to come up with multiple conclusions on the points previously stated. My conclusions were that Loot boxes need my regulations, need the psychological side of them to be reigned in (by those regulations previously to reduce predatory behavior) and the profitability/financial side of Loot boxes needs some extremely deep research, much more than I am able to cover in this paper.

Research question: What are the major challenges with purchased loot boxes in video games?

Introduction

What are the challenges with paid loot boxes in video games? To the naked eye, it just looks like small transactions to get something the player wants but what if it is more than simply the act of exchanging money for a virtual item? The challenges that go along with loot boxes have only recently begun to rear its head. Now, the game development community, politicians, and psychologists are starting to wonder about the mental, financial, and legal issues that loot boxes can cause or have already caused. Game Developers see the challenges of loot boxes as a necessity as it is a way for game developers to build up more income without having to develop an entirely new game. Politicians are unsure how to approach lootboxes as they are very similar to gambling except it's online and the governments of the world have tended to stay away from online gambling, as it is a subject that doesn't sit very high on their priority list. Psychologists will say that it is a huge issue that the psychological issues caused by Loot boxes are becoming a larger and more unregulated issue and it needs to be researched whether it is similar or the same as gambling. An interdisciplinary approach will allow me to view the common ground between these three disciplines. This research relates to my major as a game developer and I need to see why my field sees them as a necessity.

Loot boxes are one of the key terms you will see throughout this research paper and it is defined by Wen Li as “Loot boxes are virtual items in many video games that let players “gamble” on an item of chance.” To make sure this is kept up with I will make sure to add more terms that I see as key.

Game Development

The creators of the loot box and every aspect of them comes from the game developers, every idea of how they work and how they act within each individual game is up to this field and they take a significant amount of criticism for the implementation of said loot boxes and there effects on games and the people playing them. Game development companies are always looking for ways to increase revenue and ways to make more money. The biggest company guilty of using loot boxes as a way to build up revenue would have to be EA who while not the first company to implement loot boxes (the first game to introduce them was MapleStory in 2003) were the first to implement them consistently starting in 2009 with a game series called FIFA which as the name suggests is a Soccer/football game. The way they worked and still do is you would buy a loot box that simulated opening a pack of sports cards in real life and whichever player that you get in the pack you would now be able to use on your team. So how has it been turning out for EA? Has it been effective in increasing profits? Jeroen S. Lemmens in a journal article reported that “These player packs (i.e., loot boxes) have proven to be an increasingly lucrative monetization mechanic for EA, with microtransactions now quadrupling yearly

revenues from FIFA game sales. The revenue from FUT alone was appraised at \$1.6 billion in 2021.” So as you can see, it has been a massive success over the years, and considering that they also have this system in their a lot of other games, it can be assumed it makes them a lot of money.

Now that some context has been given for the effectiveness of the loot box system and how it has been implemented, what's the catch? Well therein lies the issue, there pretty much isn't any reason why a game company shouldn't implement them. The profit potential is large and the overall cost of running it isn't. Now a comparison could be to a casino and while it fits the bill initially one thing that has to be remembered is that what they are giving away has not cost them any money. A casino has to pay out its winnings to someone who wins a prize but a game company will only have to give the player a card that is (and I hate to say this as a game developer and player) a bunch of pixels which cost almost nothing to create other than labor costs. So what's the challenge that comes with loot boxes for game developers? Implementation and keeping them legal. While yes the profit potential is large the implementation can be difficult as you have to have those loot boxes have enough incentive to buy and the legality of loot boxes also has been coming into question. With Belgium banning them outright in 2018. So legality, implementation, and profitability of Loot boxes are the challenges in their discipline, not the morality.

Psychology

The Psychological side of Loot boxes has become a major talking point over the last few years, with questions ranging from its similarities to gambling to its effects on the brain and

what it could cause. Studies about Loot boxes' effects on individuals' psychological state have been going on for a while and from the research done and the conclusions gathered it's safe to say that the Psychology discipline thinks loot boxes are the equivalent of gambling. As stated by Sophie G. Coelho, "Results suggest that these associations are robust to known psychological risk factors for gambling, reducing plausibility of the notion that the association between loot box purchasing and gambling exists only due to shared psychological vulnerabilities. Loot box purchasing represents an important marker of risk for gambling and problem gambling among people who play video games." Psychologists have done tests and gotten similar results more often than not the shows that Loot boxes and gambling are almost one and the same and the stance on gambling around the country is not bright with it being known to cause major psychological and financial issues with usually little gain.

Psychological distress is a huge worry amongst the Psychology community and Loot boxes, according to a statement in a scientific journal by Aaron Drummond "Our results show that purchasers of loot boxes are at approximately 1.87 times higher risk of severe psychological distress on a standardised clinical screening tool than people who do not purchase loot boxes." Psychological distress can cause people to do some horrible things and should not be taken lightly. Now this would be a sealed deal and I would say that the psychologists all agree with each other, however, in a quote from a journal article by Peter. J Etchells, they say "The results showed extremely strong evidence for a positive correlation between LS and problem gambling; however, there was no evidence to suggest relationships between such spending and mental wellbeing or psychological distress." This quote shows that psychologists are still trying to figure out where Loot Boxes fall when it comes to psychological distress. This all tells me that

psychology thinks that it has similar effects as gambling on the brain, but doesn't know if it truly is the same as gambling. The question of the morality of Loot boxes also reigns big in this discipline.

Political Theory

The political side of Loot Boxes is one that is not often discussed but has had some major developments in the past. One of the largest and first being their ban in Belgium, discussed by Leon Y. Xiao as such, "The Belgian 'ban' on loot boxes has not been effectively enforced. Although the initial imposition of this measure promoted public discussion and debate about loot box regulation (both domestically and internationally) and likely provided better consumer protection in relation to specific games operated by well-known companies, an unenforced 'ban' has many negative consequences...". So one of the first major political acts involving Loot Boxes was the banning of Loot Boxes. It did not work and political action in general hasn't worked or has been minimal at best. But since the actions taken towards Loot Boxes have generally been about either regulating or banning loot boxes, I am gonna chalk the political side of Loot boxes as it views Loot Boxes as similar to gambling but doesn't think it should handle it as gambling as it views it as too different from each other.

Common Ground

There are three findings of common ground that have been found by this research. For one I would say that all of the disciplines have in common when it comes to their challenges and thoughts on Loot Boxes and it is that they see its ability to make a lot of money. A statistical report from Statista states that Loot boxes made over 15 billion dollars in revenue in 2020 and is predicted to become a 20 billion dollar source of revenue by 2025. Another finding is that the political and psychological side of Loot Boxes agree that it is almost identical to gambling, as shown in a statement from Gabriel A. Brooks: “This study provides empirical evidence of associations between loot boxes (i.e., risky use, expenditure) and problem gambling, as well as problem internet gaming.” The last major finding is that psychologists and politicians view Loot Boxes as the same as gambling when it comes to the law as well. In an article from Screenrants Nicholas Straub, states “Japan was the first country to take regulatory action against loot boxes. In 2012, Japan's Consumer Affairs Agency declared complete gacha to be illegal. In their ruling, via *Venturebeat*, the agency said that complete gacha violated laws against “*unjustifiable premiums and misleading representation*.” Complete gacha, a monetization mechanic, is basically a loot box variant in which individuals pay to get some random reward. The contrast, and what makes it especially predatory, is that in order to progress in the game a set of rewards must be obtained”, the article goes on to describe more cases of political action taken towards Loot boxes due to its predatory goals. These are the three major findings of common ground between these disciplines when it comes to the challenges of Loot boxes. Though a lot of disagreements can be found within this common ground there can be some resolution within these disagreements and should be resolvable though there are a few issues that may not be resolved.

Disagreements

One major disagreement comes from the political and game development disciplines and that is the regulation of Loot boxes and political actions taken towards them. Politicians want to enact laws and regulations on Loot boxes, whereas Game developers do not want that as it would cause them to lose out on profits, a statement from PCGames Vic Hood states “IGDA go on to call these restrictions “assaults” on the “self-expression and business rights” of game developers. The discussion at GDC aims to teach developers “about potential implications of recent government changes,” alongside how they can “protect themselves and support their peers.” So as seen with the research before on government bans and backlash from game companies, it can be seen that they do in fact see this as a problem. How I would solve this is simple, make the implementation of Loot boxes require a license to implement and have the regulations be relatively in line with casinos. While it doesn’t solve the predatory issue of Loot boxes it would require much more effort to implement and would hopefully stop companies from going too far.

Ch.12

In this portion of the research paper, we will get a better comprehension of the problem this research question has led us to. Let me lead off with a hypothetical situation that can show what the major challenges with Loot boxes are. Now this is just hypothetical, but let's say that someone wants to get an item in a game and the only way is to open Loot boxes. They attempt to get the item but keep getting unlucky, now they think they are in too deep to not keep spending as now Sunk Cost Fallacy will kick in (Sunk cost fallacy is the act of thinking that you have

already given up so much so at this point you must get the item or you wasted your money.) and they continue to spend either until they get it or they spend all of their money. Now if they run out of money and still want the online item then what's going to happen? They will likely try to get their hands on money no matter what. Whether that's stealing or doing some kind of illegal act, it could end up getting them in huge trouble. Now this is of course hypothetical and, admittedly over the top, but it could, and I'd wager a guess that it has happened at some point. This of course is what my research has led me to believe, though not tested yet, that Loot boxes and gambling are one and the same and could cause some of the same actions as one another. That means I believe gambling can cause actions such as the hypothetical above, and this statement from blank gives me reason to “Severe problem gambling often results in a number of serious negative consequences. Among the most troublesome and least understood is gambling-related crime.” So with the knowledge that gambling and Loot boxes are similar, what's to say it can't cause the same actions as each other?

Chapter 13

This paragraph will talk about my insights on how future studies on Loot boxes could be done given what I have learned while researching them as well as what additional disciplines can be used to research it in the future and my theory on this research question. My theory is this. Loot boxes should be classified by all parties as some sort of gambling that is certain, this is due to the similarities in actions of the two subjects and its effects on people. I'd say we could add the financial disciplines in future research as there is likely more than simple

revenue as to why companies keep adding Loot boxes and it most likely has to do with money. I'd say more studies need to be done on the legality and financial side of Loot boxes as there is already plenty of psychological research done. So that's my insight, it's not long or really deep but my conclusions on the matter are much more.

Conclusion

In conclusion too my main points which are the Legality of Loot boxes, the psychological effects of loot boxes, and the money-making potential of Loot boxes. It is obvious to me that one, Loot boxes need to be regulated as if left unchecked it will be extremely predatory. Gambling and Loot boxes are one and the same, with their psychological and profit effects being nearly identical to one another. So my conclusion is that the world governments need to handle this like gambling because through my research I have found them to be one and the same.

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