The "Gambling Turn" in Digital Game Development

Mark Johnson and Tom Brock

Abstract

This paper examines how 'gambling' has adopted a central economic and cultural position in the development of modern digital games. We first trace how developers have historically monetized 'games' and 'play', from slot machines to PC, console and mobile platforms, before transitioning into studying the recent controversy over 'loot boxes' as emblematic of the ongoing gamblification of digital play. We argue that: i) the steeply rising costs of games development and marketing, ii) an overcrowded marketplace, and iii) significant shifts in the corporate culture of much of the games industry, are creating financial and cultural conditions that serve to legitimize gambling as a form of digital game production and consumption. This is evidenced in developers' capacity to innovate around legal challenges and player demand for further customisation and rewards. What emerges then, is a question about the future direction of game development and the impact of a logic of money, rather than play, which now underwrites it.

Introduction

"I grew up playing games my whole life", were the fond words of Chris Lee, the Hawai'i member in the House of Representatives, in a recent interview. This was followed, however, by a declaration that he has watched "firsthand" the apparent transformation of the games industry from one "that seeks to create new things" into one that has now "begun to exploit people, especially children, to maximise profit" (Good, 2018). This was in reference to the recent release of Electronic Arts' multiplatform game *Star Wars: Battlefront 2* (2017), a game that quickly became notorious for its monetization methods and their potential impacts on both its players as individuals, and the wider ecosystem of digital play within the game (Kain, 2017; Tassi, 2017). This is what led Lee to declare that the game was nothing more than "a Star Wars-themed casino designed to lure kids into spending money" (Phillips, 2017), a damning condemnation that subsequently led to proposed Hawai'i legislation on the issue (Orland, 2018a). The US state has not been the only one to take action, spurred on the same unusually extreme use of the loot box system in *Battlefront 2*. Belgium (Hood, 2017), the Netherlands (Yin-Poole, 2018), China (Grayson, 2016), and a number of other countries have started to regulate loot boxes and initiate legal proceedings against publishers (Orland, 2018b). Players, meanwhile, appear torn - the financial success of these systems (Juniper, 2018) shows many players are willing to engage with them, and yet many other players and player advocates (Alexandra, 2017; Fulton, 2017) are pushing back against them. With all of these developments, the future of loot boxes as a digital game monetization method appears ever-more uncertain; digital games are once more at the centre of moralistic condemnation (Kocurek, 2012), but this time for allowing young people to

encounter games of chance (Drummond and Sauer, 2018), not concerns over violence, so-called satanism, or antisocial behaviour. Importantly, these developments have become all but ubiquitous, with very few attempts made to problematize the game industry's new methods of monetization through gambling mechanics.

In this paper we look to lay the foundations for understanding this *gambling turn* in digital game development: which is to say, gambling's newfound position at the heart of game design. We begin by problematizing a central question in the political economy of games design: how can play be monetized? How can economic value be generated by those who provide spaces of play, manufacture items of play, or regulate processes of play? By examining these questions, we come to see the challenges faced when trying to make money out of play, and lay the groundwork for understanding some of the pressures that have led the games industry towards gamblified monetization practices. We will then proceed to examine what we consider to be the central element of this profound ongoing shift, which is the implementation of "loot boxes" - digital containers purchased for real-world money that contain unknown sets of digital goods - into digital game design. Our analysis will show that: 1) monetization models are crucial to understanding the history of games *per se*; 2) that the 'turn' towards gambling is an attempt to drive 'customer lock-in' through the deployment highly of effective psychological and design techniques; and 3) that a lack of self-critical awareness by major game publishers and trade associations risks generating a new moral panic. We are presently living in a vital moment for considering these phenomena, and their present and potential future effects on game production and consumption should not be underestimated.

The Monetization of Play

One of the greatest challenges for designers of play has always been *monetization*. How should one secure income in exchange for providing play to consumers? A first obvious and popular solution is to focus on the production of a distinctive play product, which is then marketed: examples include many board games and the specialized equipment for many sports. This might be on an industrial scale in the modern era, or an individual scale: fans have crafted chess boards for centuries, but it is only recently that they are produced in tremendous numbers. Another solution is renting the space in which play must take place: this is especially appropriate for many sports that require a large and expensive pitch, and is also the model that laser-tag or paintballing companies utilize. Alternatively, the use of a space can be free *per se* whilst there can be collections of money through other means. This model includes the "rake" that casinos take as small portions of every pot played in a live poker game, or offering the play experience for free whilst encouraging the purchase of food, drinks, small comforts, and the like. Play can also be monetized through the use of a 'currency' that is 'required' to play, a model used in Japanese *pachinko* machines, where one inputs money, but only wins ball bearings, which can

then only be used to play some more, or exchanged elsewhere for goods at a significant mark-up. The above monetization practices are diverse and are not exhaustive, but have been applied to play long before the emergence of digital games. However, digital games bring with them new, more lucrative, opportunities for monetization, which raises questions about whether there has been a change in how designers view play, and the logic by which they monetize their games.

The very earliest digital games of the 1950s were curiosities, and at first no kind of significant monetization was sought from their *play*. Profit might have been generated through their very status as curiosities, as with menageries or museums, but their play - considered at the time to be something of amusement or interest - was not the central monetary drive. However, this changed with the advent of gaming arcades. These were spaces full of coin-operated game machines, large structures which had one (rarely more) game installed on it, often with a custom set of aesthetics and visuals adorning the machine and giving some hint about the game it contained. Monetization was secured through the machines only operating if an appropriate coin was inserted, which bought a length of play time. Payment did not secure ownership of the game, but rather something more akin to a rental - having paid the initial fee, one could play for as long as possible until one's skills, or fortune, were insufficient to continue. The arcade had thus paid for the machines themselves and for the space in which they could be played, and this was remunerated by getting players to pay every time they wished to play. Much like pinball machines and the like, skill correlated strongly here with the value for money - a more competent player might be able to play for the best part of an hour or even more, while a less competent player would have to continually "reload" the machine with money to continue play. Many arcade experiences were even built to take advantage of this payment system to the greatest extent possible - games would often would be relatively trivial until the "final stage" or "final level", at which point the challenge would skyrocket. Players, feeling as if they had "almost" won, would pour money in to remain in the game (Author 1, 2016) - this was therefore a somewhat deceptive system designed to maximize player retention and thus monetary gain,while the arcade game system as a whole entailed encouraging players to gamble with their money on unknown future game content, which might or might not be sufficiently challenging that they would have to pay again in order to continue play.

With the advent of digital games to be played at *home*, the initial monetization model was simple and obvious: sell the game's cassette or cartridge as a single self-contained product as one would a book, film, or music record. No more would players "rent" games as in an arcade, but they would own the games to use as they saw fit; no longer would players "rent" the complex hardware that a single game ran on, but instead a broader technological platform would be purchased on which a diverse range of games could be played. This also caused games to become generally less challenging and longer, with players no longer needing to constantly pay in order to support the game's creators, and with players given far more time to explore games in

the comfort of their own homes. Much like in arcades, without the internet neither games nor additional pay-walled content could be downloaded, and so the initial product had to be a complete product, and had to sell for an appropriately high price. That was traditionally $60 in the United States and £40 in the United Kingdom, which has become an industry norm unchanged in the intervening years despite inflation (Narcisse, 2014) - one issue of many leading us to the present crisis of game monetization. “Expansion packs” - the precursors to later “DLC” (downloadable content) and recent microtransactions - were significant improvements to the base game, but these were also generally purchased in stores, and tended to be few in number and again quite high in cost, at perhaps a third or even half of the price of the base game. With these home computers, arcades were no longer the cutting-edge of new games, games were cheaper in the long-run to buy and own at home than continually "rent” at an arcade, and arcades become more a space for socialization than playing the very latest, most sophisticated digital games (Williams, 2005); equally, the home-playing games market was far larger, with most games in most arcades focusing primarily on a teenage male audience often hostile to other demographics (Kocurek, 2015; Newman, 2017). However, economically speaking home computers and subsequently dedicated games consoles quickly emerged as a major consumer market in Global North countries, resulting in the rapid growth of game console hardware developers. In turn, this shift of gaming into the ‘domestic space’ was one part of making gaming an element of everyday life, rather than a *trip* to an arcade: as we will show, this prefigures what will consequently make gambling-style systems, played in the comfort of one’s own home, so potentially lucrative.

The past two decades, meanwhile, have seen the rise of *digital* storefronts and a coterminous decline of physical storefronts, with many major games retailers either closing entirely or being forced to reduce their number of outlets. On these virtual platforms one can purchase games and download them as quickly as one’s internet connection can handle, all without having to leave the house, and without having to pay the costs of manufacture, packaging and distribution of physical items that inevitably contributed to the cost of traditional game artifacts. Given these advantages for time, effort and money, digital storefronts have exploded in popularity, and are now the most popular form of game purchase (ESA, 2017; Superdata, 2018). At time of writing, Valve Corporation’s *Steam* digital storefront is an undisputed monopoly actor when it comes to digital storefronts for PC gaming. The platform averages approximately 11 million concurrent users (Steam, 2018) and generated 4.3 billion U.S dollars in sales revenue in 2017 (Statista, 2018). The digital storefront model is therefore an extension of the in-person single-purchase model, but generally faster, easier, and cheaper. This has also led to an explosion in expansion packs, now more commonly termed “Downloadable Content” or DLC - without the need to produce and ship the items, games no longer feature a small number of major content additions, and instead tend in the direction of a large number of small content additions, with the marginal cost of these products generally reduced via the digital medium. This means the level of profit for later content which builds on much of the effort committed to the original game is extremely

high, with far more being charged per hour of work than in the base game; on a broader scale this also contributes to the longevity of a game, with trickle-down effects in long-term game purchasing patterns. However, this shift to the digital has led to two new trends. The first is the idea of games as a *service*, distinct from the rental model of arcades but nevertheless showing commonalities, allowing for content to be drip-fed to players through microtransaction monetization methods. The second is the intensification of microtransaction methods through the deployment of gambling systems alongside them, which transform guaranteed microtransactions into chance-based microtransactions and thus encourage many more purchases from players in pursuit of their desired items.

In the first case, the past five years have seen the shift from games as a *product* to games as a *service*. This has antecedents earlier within the digital games industry: arcade games were in essence a service model of digital play, whilst the majority of MMO games have survived for years, and in some cases decades, on the back of demanding a regular subscription from their players. However, this has now expanded beyond MMOs to a large number of non-MMO games, and the best example of games as a service is evidenced within so-called 'freemium' game titles. Freemium is a business model whereby basic game services are provided for free of charge, via the Internet, whilst more advanced features must be paid for. This model has become particularly prominent within the mobile gaming market with games like *Candy Crush Saga, Clash of Clans, Pokemon Go*, and *Super Mario Run* generating audiences of upwards of 100m players and revenue that runs into the billions. The success of this model relies on driving customer lock-in through the purchase of coins, keys, passes, and other items that can remove barriers to in-game progression, and must be continually acquired in order to access everything the game has to offer (hence the transformation of a game into an ongoing service). In 2017, SuperCell, the developer of *Clash of Clans*, *Clash Royale*, and a number of other freemium titles, posted $810m in profit. Similarly, King's *Candy Crush Saga* has been downloaded over 2.7 billion times, and generates hundreds of millions of dollars each quarter through microtransactions. The popularity of the freemium model is also no longer just limited to basic mobile game titles. In the last couple of years, PC and console game developers have started to re-release their premium titles for free in order to capture the same market. For example, the success of Epic Games' *Fortnite* has been attributed to its freemium model, which offers polished gameplay but with zero upfront cost (Gilbert, 2018). This move towards the freemium model - and the gameplay systems, integrated with real-world money, that underpin it - raises critical questions about the future of games development and, in particular, how it is funded. However, first we wish to ask: what has led to this innovation in financing? Naturally all industries innovate and seek to turn a profit, but we believe there are three central trends which have led to this model: these are important to consider, given that freemium dynamics are arguably more exploitative and less player-friendly than any which has come before. How did we get here, why has this new model emerged, and how have we now come to gamblification of digital game monetization?

Pressures on the Games Industry

We propose the existence of three particular pressures on the contemporary games industry which have led to the widespread adoption of the free-to-play model, and its even more recent intensification through the gambling-like elements we will shortly consider. These have led to the gamblification of the microtransaction model due to its ability to secure a far greater number of purchases from players, who continue to buy loot boxes in continual pursuit of the digital goods they were once guaranteed upon making a purchase.

The first is inflation and growth. Research has begun to identify a sharp upwards trend in development costs, citing a range of market factors (Koster, 2005, 2008, 2017). In 1996, it cost around $1.7m to make a "triple A" (major blockbuster) game, like *Crash Bandicoot*. In 2001, it was closer to $3.5m to make the popular MMO *Dark Age of Camelot*. In 2006, it cost nearly $10m to make *Gears of War,* which is a fraction of the $50m it cost to make *Call of Duty: Elite* in 2011 or the $140m it cost to make *Destiny* in 2014. Today, it is estimated that one of the biggest titles of the year, Rockstar Studio's *Red Dead Redemption 2*, will cost more than a quarter of a billion dollars to make. Meanwhile, the 'off-the-shelf' cost of games to the consumer remains very cheap. Since 1996, the cost of a brand new game has not risen from around $60 (which had a purchasing power of $100 back then) and is likely *falling*, due to discounts, trade-ins and thirty-party platforms deals (such as 'Steam sales'). Koster (2018) argues that this discrepancy is caused by an unsustainable growth in the size and content of games; the magnitude of which has increased 10x every 10 years alongside burgeoning staff costs, from voice acting to artwork and music composition. Thus, in 1996, *Crash Bandicoot* was around 450MB in size, had a 320x240 native resolution and included basic animation, soundtrack and sound effects. In 2014, *Destiny* was around 40GB, had a full HD resolution (1920x1080) and included a persistent online multiplayer world, real-time dynamic lighting, voice acting by celebrities Peter Dinklage and Bill Nighy and an eight-movement symphonic suit of music featuring Paul McCartney. As a result, there has been an exponential growth (consolidation) in studio teams and staff costs to meet a range of emerging consumer demands (e.g., graphical fidelity, multiplayer functionality, etc). For example, the development team behind *Crash* was relatively small (10) and cheaper to manage in comparison to the multinational operations (400) needed to support the development of *Destiny.* These factors all add pressure to find new ways to monetize digital games produced, and to *continue* making money after an initial release for the longest possible period. Freemium models are highly effective at hooking players and then expanding the length of play and the money required to continue play, with unpredictable or gambling-esque versions of these microtransactions being arguably even more effective than their direct-purchase cousins.

Secondly, the games industry is currently experiencing market oversaturation, arguably in the most intense form since the video game crash of 1983 (Koster, 2018). The number of available games has skyrocketed in an exponential fashion while the game-playing demographic increases only linearly. One of the main causes of this trend is the newfound ease with which games can be developed and marketed by individuals or small organisations outside of the largest games companies. Although initially leading to a number of critically-acclaimed breakthrough titles, this has now led to a situation where many digital platforms are flooded with low-quality games (Handrahan, 2018). Companies, meanwhile, are going bust or being subsumed into others unusually often (Taylor, 2018) after becoming unable to maintain their staff, and many major studios are being closed (Valentine, 2018). Consequently, all games companies and game developers except the very largest actors are feeling a growing pressure to make their games stand out in this marketplace against a backdrop of a flood of games which, although generally mediocre or poor in quality, nevertheless take up space, draw attention, and make findings professionally-produced titles all the more challenging. As we have previously seen, the free-to-play model is effective at bringing players in and attracting attention, and then as we shall see, new monetization models such as loot boxes are highly effective at gaining income after players have been recruited through the allure of free play. This two part model, as we will show, is allowing developers to secure both visibility, and profit, within this challenging and contemporary market.

Thirdly, we must note a wider cultural change in the production of games - which is to say, who is producing them, why are they producing them, and who profits from their production. The past several decades have seen the emergence of a number of major digital game production and publishing studios, often with resources comparable to major companies in the film or music industry. These include *Electronic Arts* or *EA*, *Activision-Blizzard*, *Tencent***,** and *Sony Interactive.* A growing number of the world's largest and most potentially profitable "triple-A" game releases are in some way entangled with at least one of these companies or their close competitors. The emergence of these games industry juggernauts has led to a profound shift in who leads the games industry, and for what purposes. Although we would hesitate to use a term like "corporate greed", the evidence suggests such an emotionally-loaded phrase is not far from the truth. Major games actors are increasingly led by executives with a preference for long-standing business acumen over games development knowledge (Activision, 2005) and out of touch with the community and culture (Iftekhar, 2017; Nakamura & Furukawa, 2018). We are thus witnessing a shift from the production of a cultural item which needs to make money to be sustainable, to the production of a monetized product designed to appeal to a particular cultural market. Equally, some companies even acknowledge that gambling-esque monetization methods are not required to meet their bottom lines (Carter, 2017), demonstrating that loot boxes, for these most powerful companies, are instead a matter of generating huge profits. Our point here is not to romanticize earlier eras of game production - revenue was of course always a motive for

actors wanting to be self-sustaining through their game production, and the question of profiting from artistic production is an always fraught one (Smith & McKinlay, 2009; Baker & Hesmondhalgh, 2013) - but these major corporate actors behave in distinct ways, where game quality and profit are no longer of equal importance, but the latter has clearly risen to a position of priority well above the former. This has profound implications for how digital games are monetized, and how "invasive" or "exploitative" those monetization methods might have become. As we will see, the freemium model and the gambling-esque purchases increasingly bundled with it are an extraordinarily effective monetization method, yet one which in almost all cases severely degrades the play quality of the game. The central element of this, and the most modern and contentious form of game monetization on which we now focus, is the "loot box".

Loot Boxes

The primary contemporary manifestation of the gambling turn is the concept of the "loot box". Many digital games since the earliest days of the medium have offered the player digital containers that contain an unknown set of items: upon completing a challenging level, for example, the player might find a treasure chest containing something of value, but the precise nature of that thing might vary each time the game is played. These served to generate a low level of consistent interest for a player, acquiring new and unknown items that would likely, but not definitely, aid them in their in-game endeavours (Author 1, 2018). A "loot box" is a similar kind of treasure chest containing unknown items, except this is *directly paid for*, by the player, using *real-world money* (or in some cases a digital currency bought with real-world money, which serves only to add an extra layer of abstraction). The price for an individual loot box is often low, and they are often marketed in "deals": one might buy a single loot box for one dollar, for example, or one hundred loot boxes for ninety dollars, thereby securing a "saving" of ten percent. Upon opening them there are two possible rewards from loot boxes: cosmetic, and non-cosmetic. Cosmetic items a player receives from a loot box will change some aspect of how the player's character appears within the virtual game world; it might change a piece of clothing, add a tattoo, change how a weapon looks, and so forth. Such elements of one's digital appearance are vital to social status in many digital spaces and have "value" for many players interested in these kinds of signalling. Non-cosmetic items, meanwhile, change what the player's character is able to *do* within that world: their character might become tougher, faster, stronger, or gain access to items or abilities that were previously unavailable. It was loot boxes, particularly of this latter sort, that were at the core the *Battlefront 2* controversy, with players encouraged to purchase tremendous numbers to get ahead in absolute terms, but also to keep up their friends, as well as whoever one might meet during a period of play. Loot boxes have consequently became central to thinking about gambling mechanics within digital games.

The rise of the loot box has not been without controversy, however, and has led to a range of policy responses from a significant number of countries, with more starting to begin the process of investigation and potential legislation at time of writing. Three central concerns seem to have arisen. In the first case, loot boxes have become controversial due to the potential risk of offering real-money gambling or gambling-esque experiences to young people below legal gambling age (Lum, 2018). Most states are extremely strict on regulating gambling only to adults, and the fact that loot boxes seem to get "around" relevant legislation by being presented directly to children and young people in digital games is of some concern. In the second case, there is growing concern about the overall legality of loot boxes, both to be potentially offering gambling to young people, but also more generally: these are systems embedded in other pieces of software which do not conform to gambling laws in any jurisdiction at time of writing (Hafer, 2018). It is unclear the extent to which loot boxes align with the often complex and labyrinthine legal systems surrounding gambling - which vary from country to country, and in some countries between states and provinces - and the extent to which game developers are even aware of this possible issue. Although not yet defined as gambling in many states, a redefinition of this sort would have profound legal implications. In the third case, the emergence of loot boxes raises challenging questions around the taxation of gambling (Wood, 2017; Rijks, 2018). States that allow gambling activity tax gambling in a wide variety of ways, but loot boxes are not yet being taxed in any distinctive way; the money acquired flows straight to game developers. Implementing some form of taxation system for loot box purchases, especially now many of the world's legislative bodies have quite suddenly become aware of the phenomenon, is likely to be a major development in the coming years. As such, policy concern with the gamblification of digital game design is threefold: a fear of undergage gambling, a concern over the legality of loot boxes**,** and a question about whether such practices can be taxed like most other gambling revenues are in most states. Where some major developments in digital games - such as motion capture, for example - have emerged and become extremely popular with almost no policy interest, loot boxes and gamblification methods more broadly have immediately been seized upon as a site of potential interest, and potential concern.

However, this fear of childhood and teenage gambling is not what digital game *players* have taken issue with. Instead, the primary source of player backlash stems from a proposition that loot boxes - and microtransactions as a whole - represent the development of games that subsist on a "pay-to-win" system. Digital games are traditionally seen as deeply meritocratic spaces (Schulzke, 2013; Paul, 2018). Those with the greatest talent or ability to practice their skills will rise to the top, whilst those lacking in ability or dedication will not. In turn, the apparent "distance" between the physical world and digital worlds strengthens this idea, with games coming to represent idealized spaces of pure competition. Despite a growing body of work (Gray, 2016; Tang & Fox, 2016; Kim, 2017; Witkowski, 2018, etc) demonstrating the inaccuracy of this perspective, and highlighting how deeply riven with inequalities and the marginalization

of underrepresented communities gaming is, gaming still *feels* like a space apart from the rest of society, where the elite rise to the top and others do not. Loot boxes consequently upset this idealized yet widely-accepted scenario in three ways. Firstly, they represent a highly visible intrusion of the real-world into the digital play-world, with one's monetary resources coming to shape gameplay. Secondly, and more egregiously, in games that have earned the epithet of *pay-to-win*, the real-world intrudes in the most offensive way: by vitiating a supposed space of pure skill, and thereby fundamentally altering a game's entire ecosystem of skill, practice, success, and the social recognition contingent on these factors. Thirdly, and perhaps worst of all, not just do they distribute fortune according to real-world financial resources, but they do so via a system of *chance* - in both cases the game world is no longer supposedly a pure meritocracy, but rather one with unpredictability, and real-world connections. The first two issues apply to microtransactions as a whole, but only in loot boxes do we see all three of these problematic elements.

As such, until this point gambling has been only a rare monetization method for providing play experiences, but the income gambling can generate has provided some of the most expensive forms of play: such as those requiring space, security, dealers, and the like. Now it has instead become a psychological matter, a discovery by the games industry of game mechanics extremely effective at acquiring money from players in an era of challenging digital game market conditions. To return to the three pressures identified earlier in this paper, we see that *coupling* loot boxes with free-to-play games brings players in and then keeps them playing and paying for longer, helping to offset the rising costs of game development to a potentially greater extent than a single up-front premium purchase; it monetizes the play of gamers who are enticed by the lure of free-to-play games, whose apparently low price makes them stand out in the current market; and it offers the opportunity to maximize profits - albeit at the cost of game quality and game play - in an era of an increasingly corporate culture of digital game development. The successful implementation of gambling mechanics into digital games is thus central to the contemporary games industry.

Rapid Innovation

Alongside the implementation of loot boxes themselves, we also note a broader trend here: the *rapidity of innovation* within digital game monetization, and the attendant speed with which old models fade from view, only to often reemerge in an elaborated form. Older models within the digital game era, such as the coin-operated arcade machine, which only ever appealed to a small range of players, have been reimagined through mobile games design and accessible gameplay to captivate a vast range of audiences. Retail purchases, once the bulk of game-related transactions, have been diversified through digital distribution platforms, allowing smaller studios to produce and sell games on a larger scale. Subscription models, once key to the financial sustainability of

the earliest MMOs, have been remixed with freemium models of play monetization (microtransactions and loot boxes), to create hugely successful cross-platform gaming titles. Each of these survived for many years, and in some cases decades, before replacement. By contrast, a large number of different loot box models have emerged in a short space of time, with game developers changing the particular models by which loot boxes are purchased, presented or opened. In many cases these have been in response to changing legal conditions, while in other cases they have been iterations on what is already a highly successful monetization strategy, finding new ways to encourage payments, distribute items, and frame the apparent desirability of these purchases.

Indeed, within the space of the last eighteen months, controversies surrounding loot boxes in games like *Star Wars: Battlefront II* have expanded to include concerns over 'Battle Pass' models deployed in games like *Fortnite*, *PlayerUnknown's Battlegrounds*, and *Rocket League*. A 'Battle Pass' monetizes play by providing players with additional content for a game through a 'tiered' progression system, rewarding players, who purchase the pass, with in-game items by playing the game and completing specific challenges. The battle pass model is not new - it was originally used to monetize *DOTA2*, a free-to-play competitive multiplayer game developed by *Valve*. Yet, in the last year, it has become a popular alternative (or in addition) to loot boxes, removing some 'chance' in games by offering players a set of clear goals and a mixture of small and large achievable objectives. Players who own the battle pass have access to a specialized set of challenges that allow them to unlock more, high-quality items, quicker. Players who do not own the battle pass (and are playing the game for free) may still unlock items but at a heavily reduced rate and do not have access to the tiered objectives and achievements. The issue here is that the model monetizes the social hierarchy that is present within the games tier progression system; it effectively creates two-tiers of the 'haves' and 'have-nots'. Unlike loot boxes, which leave the pursuit of items to probability, battle passes tap into the feeling of 'keeping up with Joneses' or, what Veblen (2009 [1899]) calls 'conspicuous consumption', most directly - a form of social anxiety that is generated by comparative social status. Similar to loot boxes, however, is the idea that this anxiety can be further monetized by offering items which are time-limited in availability, or cannot be gained at another point in time. Thus, in Epic Games' popular title *Fortnite*, the game plays over 'Seasons' - defined periods of time, e.g., July 12 - September 25th - within which certain items, skins, weapons, etc. are time-restricted: only unlockable if those with the battle pass complete the necessary objectives. Once the season is over, and a new one begins, certain items, skins, weapons, etc. are no longer available to be unlocked, but may be used by players who have previously unlocked them. This drives customer lock-in, as the player is encouraged to purchase of each season's battle pass, as well as additional in-game currency (if players want a particular skin but have not managed to unlock it by completing particular objectives) *if* they are to present the particular 'self' - one with a selection of rare skins, cosmetics, and weapons that is evidence of established player within *Fortnite* community.

Much like loot boxes, battle passes strongly resemble a form of gambling. The player front-loads a payment and then, upon playing the game, might sometimes be given a reward (having purchased the pass). Players continue to pay for unknown outcomes, and because battle passes generally promise items that are either limited or extremely valuable, players are inclined to keep playing in pursuit of the desired items - much like the opportunity to keep buying loot boxes until the wanted item(s) are acquired. In this regard, a battle pass exhibits a strong structural similarity with heavily front-loading a slot machine with funds before beginning play, and then subsequently spinning the wheels without thinking about one's initial monetary investment in the pursuit of particular wins. In this regard both loot boxes and the battle passes that some companies are beginning to deploy in response to their unpopularity are strongly modelled upon forms of monetized play far more common in casinos than digital games, and show both how quickly developers are innovating in these gambling-like systems, and the wide number of potential digital game monetization forms drawing on gambling that are possible. As such, new monetization models are always being imagined, tested, profited from, and then iterated upon by the original creator or others. The first game to utilize a certain model has an undeniable advantage, presenting a way to profit players have not yet figured out, nor had the time to potentially find objectionable; but latecomers are not excluded, able as they are to refine and perfect previous models without any of the trial-and-error of the monetization innovator.

Discussion

We have presented a history of the games industry specifically from the point of view of *monetization*, followed by an acknowledgement of the pressures the contemporary games industry is facing - cultural, technological, and social in origin - and an analysis of the new gambling-esque monetization models, most strikingly and visibly loot boxes, this situation has led to. Since the dawn of digital games as a medium, monetization has always been key to how and what games are produced and sold, as it always has been for pre-modern forms of play, and continues to be for non-digital forms of play, such as casinos, race betting, or competitive sports. Although we often conceptualize play as being frivolous and trivial, something that escapes the realities of everyday life, play experiences, equipment and platforms are almost never free, and thus finances are entangled in all but the most spontaneous and equipment-free of children's play. There have been many models for the monetization of play, both within and beyond digital games, but most recently the monetization of non-gambling games have suddenly, and sweepingly, become gamblified. As such, the data presented in this paper points toward three significant and interwoven developments in the last five years: profound changes the games industry is currently undergoing, the potential rise of a new moral panic about digital games, and the rapid emergence of fundamentally new player experiences that cut across existing and long-established, yet somewhat unconvincing, boundaries between gameplay and the rest of

one's life experiences. Each of these is important to consider for understanding both the wide, and the specific, effects that this gamblification of game monetization is happening.

Firstly, we note the shifts to the games industry outlined in this paper. With the emergence of digital distribution methods, the ability to pay small amounts for small amounts of gaming content, instead of a single significant up-front purchase, became a reality. Over time this approached its logical limit, with content being broken down into smaller and smaller chunks, each of which is monetized. As the volume of content to be purchased has grown, a high-cost single-purchase model has become less and less attractive to the industry who recognize the potential for higher overall profits, while it also seems to offer "choice" to players who might want to pick and choose the game content they engage with, without paying for the rest. A subsequent "race to the bottom" led to a large number of games becoming entirely free to acquire and to play, with developers looking to profit from microtransactions within these games. Although such transactions need not contain a gambling element, gambling-based microtransactions quickly emerged as one of their dominant forms. A gambling microtransaction has the ability to keep players paying for longer in pursuit of one piece of content, and offer players paying only a small amount of money the *chance* of something extremely valuable. This is also closely linked to "games as a service", a monetization and content distribution model that understands games as something one continually drip-feeds money into, rather than making a single payment up-front and deriving all of one's long-term play value from the outcome of that payment. Understanding these changes in the games industry, and consequently the games created, will only become more important as time goes on.

Secondly, as we discuss in greater detail elsewhere (Author 2 & Author 1, Forthcoming), we might presently be witnessing the birth of (yet) another moral panic centred on the apparent dangers of digital play. Digital games have been no stranger to moral panics throughout their history, with concerns being raised about the length of time players spend playing, the potentially negative social impacts of play, and the supposed risk of introducing or encouraging violent behaviour, to name but a few. Non-digital games have also not been immune, most famously due to the controversy surrounding tabletop role-playing game *Dungeons & Dragons*, which was supposedly entwined with demonic activity, violence and murder, and so-called anti-christian values**.** Each of these in its turn has been partially or wholly disproven or disregarded, but these nevertheless remain prevalent in a public consciousness now tackling the apparent spectre of "gaming addiction", and as we explore in this paper, the growth of gambling-like mechanics within digital game experiences. It is not difficult to see how the mobilisation of heated concepts like "children", "gambling" and "digital games", when put together in a single phenomenon like loot boxes, will be likely to lead to some extreme responses. This means that researchers, and everyone else involved in these ecosystems and discussions, would do well to exercise restraint before proclaiming on the negative value of games as a whole, or at least contemporary games

with loot boxes, as a result of their particular nature. There is far more at play here than *children being exposed to gambling*, but rather a large and complex political economic ecosystem that needs to be understood and assessed, beyond considering potential impacts on certain groups within a vacuum of other research. The issue here is the games industry, its simultaneous shift to these new models and the impacts those shifts are having on the industry, on players, companies, policymakers, and many other parts of the wider gaming ecosystem.

Finally, our paper contextualizes concerns over the 'blurring' of gambling and digital game experiences. As research focuses on exploring the similarity between loot boxes and gambling (Griffiths, 2018), and begins to draw causal links to problem gambling (Drummond and Sauer, 2018), we also recommend surveying the political economy that underwrites these monetization practices. This enables games research to offer a picture of the *longue durée* (Braudel, 1982) - the long term historical and structural view - of how capitalism is shaping (digital game) play experiences. As evidenced in this paper, each method of monetization has structured the way in which players consume and experience digital games; from coin-operated pinball machines, to off-the-shelf purchases, to games-as-service and free-to-play. What these advancements reveal is that developers are turning to monetization practices that drive customer lock-in to manage the challenges presented by a maturing digital game market.

Bibliography

Activision, (2005). Activision further strengthens senior management team. *Activision,* available at: https://investor.activision.com/news-releases/news-release-details/activision-further-strengthens-senior-management-team?releaseid=166373

Alexandra, H.(2017). Loot Boxes are Designed to Exploit Us. *Kotaku,* available at: https://kotaku.com/loot-boxes-are-designed-to-exploit-us-1819457592.

Author 1. (2016).

Author 1. (2018).

Author 2 & Author 1 (Forthcoming). A Critique of "Gaming Addiction": Against the Weaponization and Medicalization of "Unproductive" Time.

Baker, S., & Hesmondhalgh, D. (2013). *Creative labour: Media work in three cultural industries*. Routledge.

Carter, C. (2017). EA expects 'no material impact' on financial earnings after turning off Star Wars Battlefront II's microtransactions. *Destructoid*, available at https://www.destructoid.com/ea-expects-no-material-impact-on-financial-earnings-after-turning-off-star-wars-battlefront-ii-s-microtransactions-473855.phtml

Drummond, A & Sauer, J. (2018) Video game loot boxes are psychologically akin to gambling. *Nature Human Behaviour*, 2:530-532.

ESA 2017, (2017). Essential facts about the computer and video games industry, available at: http://www.theesa.com/wp-content/uploads/2017/09/EF2017_Design_FinalDigital.pdf

Fulton, W. (2017). Do Players Really Like Loot Boxes, or Are Game Publishers Forcing Them on Us? *Digital Trends*, available at: https://www.reddit.com/r/gaming/comments/7cl1zd/congrats_ea_on_the_most_downvoted_comment_in/

Gilbert, B. (2018). There's a simple, obvious reason Fortnite is the biggest game in the world right now. Business Insider, available at http://uk.businessinsider.com/fortnite-price-free-to-play-2018-5

Good, O. S. (2018). Hawaii lawmakers introduce loot crate regulation bills. *Polygon*, available at https://www.polygon.com/2018/2/13/17007830/hawaii-loot-crate-laws-ea-star-wars-battlefront-2

Gray, K. L. (2016). 'They're Just Too Urban': Black Gamers Streaming on Twitch. *Digital sociologies*, *355*, 68.

Grayson, N. (2016). China Will Force Games with Loot Boxes to Disclose Odds, *Kotaku*, available at: https://kotaku.com/china-passes-law-forcing-games-with-loot-boxes-to-discl-1789828850

Griffiths, M. D. (2018). Is the buying of loot boxes in video games a form of gambling or gaming?. *Gaming Law Review*, *22*(1), 52-54.

Hafer, T. J. (2018). The legal status of loot boxes around the world, and what's next in the debate. PCGamer, available at https://www.pcgamer.com/the-legal-status-of-loot-boxes-around-the-world-and-whats-next/

Handrahan, M. (2018). Valve continues its fight against "fake games" on steam, available at: https://www.gamesindustry.biz/articles/2018-06-18-valve-continues-its-fight-against-fake-games-on-steam

Hood, V. 2017. Star Wars Battlefront 2 loot boxes investigated by the Belgian Gambling Commission, *Eurogamer,* available at: https://www.eurogamer.net/articles/2017-11-16-star-wars-battlefront-2-loot-boxes-investigated-by-belgian-gaming-commission

Iftekhar, N. (2017). Pay to Play: The Video Game Industry's Endless Greed. Daily Star, available at https://www.thedailystar.net/shout/cover-story/pay-play-1488388

Juniper Research, (2018). Loot Boxes and Skins Gambling to Generate a $50 Billion Industry by 2022, available at: https://www.juniperresearch.com/press/press-releases/loot-boxes-and-skins-gambling

Kain, E. (2017). EA Shares Plummet After Star Wars: Battlefront II Loot Box Fiasco, *Forbes,* available at: https://www.forbes.com/sites/erikkain/2017/11/28/ea-shares-plummet-after-star-wars-battlefront-ii-loot-box-fiasco/#2e2c2cd56f37

Kim, S. J. (2017). *Gender inequality in eSports participation: examining League of Legends* (Doctoral dissertation).

Kocurek, C. (2012). The Agony and the Exidy: A History of Video Game Violence and the Legacy of Death Race, *Game Studies,* 12(1), available at: http://gamestudies.org/1201/articles/carly_kocurek

Kocurek, C. (2015). *Coin-Operated Americans: Rebooting Boyhood at the Video Game Arcade*, University of Minnesota Press.

Koster, R. (2018) The cost of games, available at: https://www.raphkoster.com/2018/01/17/the-cost-of-games/

Lum, P. (2018). Video game loot boxes addictive and a form of 'simulated gambling', Senate inquiry told. The Guardian, available at https://www.theguardian.com/games/2018/aug/17/video-game-loot-boxes-addictive-and-a-form-of-simulated-gambling-senate-inquiry-told

Nakamura, Y. & Furukawa, Y. (2018). Super Mario Creator Warns Gaming Industry: Don't Be Too Greedy. Bloomberg Online, available at https://www.bloomberg.com/news/articles/2018-08-22/super-mario-creator-warns-gaming-industry-don-t-be-too-greedy

Narcisse, E. (2014) Why New Video Games Still Cost $60. Kotaku, available at https://kotaku.com/why-new-video-games-still-cost-60-1545590499

Newman, M. (2017). *Atari Age: The Emergence of Video Games in America*, MIT Press.

Orland, K. (2018a). No video game loot boxes for buyers under 21, say proposed Hawaii bills. *Ars Technica*, available at https://arstechnica.com/gaming/2018/02/no-video-game-loot-boxes-for-buyers-under-21-says-proposed-hawaii-bills/

Orland, K. (2018b). 15 countries and one US state team up to fight gambling in video games, *Ars Technica,* available at: https://arstechnica.com/gaming/2018/09/multinational-regulators-join-together-to-fight-gambling-in-video-games/

Paul, C. A. (2018). *The toxic meritocracy of video games: Why gaming culture is the worst*. U of Minnesota Press.

Phillips, T. (2017). This game is a Star Wars-themed online casino designed to lure kids into spending money. *Eurogamer*, available at https://www.eurogamer.net/articles/2017-11-22-star-wars-battlefront-2-loot-crates-belgian-gaming-commission-hawaii-chris-lee

Rijks, M. (2018). Loot boxes from a Dutch perspective. TaylorWessing, available at https://www.taylorwessing.com/download/article-loot-boxes-from-dutch-perspective.html

Schulzke, M. (2013). Using Video Games to Think About Distributive Justice. *Journal of Interactive Technology and Pedagogy*, 2, 1-19.

Smith, C., & McKinlay, A. (2009). Creative labour: content, contract and control. Creative labour: Working in the creative industries, 29-50.

Statista, (2018). Steam game sales revenue generated 2014-2017, available at: https://www.statista.com/statistics/547025/steam-game-sales-revenue/

Steam. (2018) Steam Stats, available at: https://store.steampowered.com/stats/

Superdata. (2018) Worldwide digital games market: August 2018, available at: https://www.superdataresearch.com/us-digital-games-market/

Tassi, P. (2017). Star Wars Battlefront 2's Loot Boxes Seem Like They're Going To Be A Serious Problem, *Forbes*, available at: https://www.forbes.com/sites/insertcoin/2017/10/08/star-wars-battlefront-2s-loot-boxes-seem-like-theyre-going-to-be-a-serious-problem/#64c611a36323

Tang, W. Y., & Fox, J. (2016). Men's harassment behavior in online video games: Personality traits and game factors. *Aggressive behavior*, *42*(6), 513-521.

Taylor, H. (2018). Tencent dominates $22billion games deals market over last 12 months, available at: https://www.gamesindustry.biz/articles/2018-04-19-tencent-dominates-usd22-billion-games-deals-market-over-last-12-months

Valentine, R. (2018). Mass layoffs reported at Telltale games, available at: https://www.gamesindustry.biz/articles/2018-09-21-developers-report-mass-layoffs-at-telltale-games

Veblen, T. 2009 [1899]. *The Theory of the Leisure Class,* Oxford University Press.

Williams, D. (2005, June). A brief social history of game play. In *DiGRA Conference*.

Witkowski, E. (2018). Doing/Undoing Gender with the Girl Gamer in High-Performance Play. In *Feminism in Play* (pp. 185-203). Palgrave Macmillan, Cham.

Wood, C. (2017). Loot Boxes and Microtransactions May Be Bad, But Government Involvement Would Be Worse. PlayStation Lifestyle, available at https://www.playstationlifestyle.net/2017/11/28/loot-boxes-microtransactions-may-bad-government-involvement-worse/

Yin-Poole, W. 2018. The Netherlands Declares Some Loot Boxes are Gambling: Tells Publishers to Modify Them, *Eurogamer,* available at: https://www.eurogamer.net/articles/2018-04-19-the-netherlands-declares-some-loot-boxes-are-gambling