

Come for the game, stay for the cash grab:
The ethics of loot boxes, microtransactions, and freemium games
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A. Introduction

One of the biggest current controversies surrounding video games involves loot boxes. A loot box is a virtual container in a game which, when opened, contains one or more in-game items selected randomly from a list of possibilities. On its face this may not seem so controversial: video games have been putting random items in treasure chests for decades. However, loot boxes are typically purchasable for real world currency; they are not obtained solely by defeating enemies in the game or accumulating in-game currency.

The prospect of obtaining in-game items for real money (generally referred to as “microtransactions”) has been controversial for years. In 2009, Blizzard Entertainment started selling in-game pets to *World of Warcraft* (Blizzard Entertainment, 2004) players for real money. These pets were purely cosmetic items; they provided players with no advantage in the game. Nonetheless, there was controversy over whether this would open the door to being able to buy in-game gear with real money. While that has not materialized in this game, many single-player games have offered such items for pre-ordering a special edition of a game, so there is some precedent for the fear.

Mobile games often use a financial model in which the game itself is free but players pay real money for in-game items; frequently this takes the form of a currency which can be used to speed up various time-consuming actions in the game. Referred to as “freemium” games, players often grumble about them but do seem to recognize that some kind of payment is necessary for the labor that goes into designing a game. However, the practice of including microtransactions in a game that players have already spent \$50 or \$60 on has generated much more controversy.

This has come to a head recently with *Middle-earth: Shadow of War* (Monolith Productions, 2017) and *Star Wars: Battlefront II* (EA DICE, 2017), both of which announced that they would contain microtransactions (although the latter removed them prior to release due to the overwhelmingly negative backlash.) A number of jurisdictions have indicated legal interest in whether loot boxes constitute a form of gambling and thus should be subject to similar regulation; both Belgium and the Netherlands have decided this is the case, and other European Union countries seem likely to follow. Regardless of the ultimate legal decision, this leads to a number of interesting ethical questions.

In this paper I will be investigating the ethics of freemium games, microtransactions, and loot boxes. I will specifically be looking at cases where the designer allows real money transactions; issues such as illicit gold farming and account selling will be beyond the scope of this paper. Three distinctions will be relevant to this discussion. First, there is a difference between a fixed-reward microtransaction and a random one, such as a loot box. Second, there is a difference between cosmetic items and those which affect gameplay. Third, there is a difference between

offering items which cannot be obtained through in-game effort versus items which can be obtained through in-game effort but could be purchased for real currency instead; the latter is essentially a sort of short cut to avoid the in-game effort. Ultimately, all three of these distinctions will be necessary to distinguish ethical microtransactions from unethical ones.

B. Terminology

Before diving into the ethics of the situation, a few pieces of terminology would be useful. When I use the term “microtransaction,” I am referring to any instance of being able to pay real money for an in-game item or perk. There are a wide range of transactions which fall under this umbrella. A player could be purchasing an in-game item, whether a cosmetic one such as a pet or a functional one such as a set of armor; similarly, many games have in-game currencies which are available for real world money, so a player could buy gold, gems, or whatever the currency is in this particular game. She could be purchasing a temporary boost of some kind, such as an increase to the experience she earns while playing over the next week. Or she could be purchasing a kind of quality-of-life enhancement such as removing annoying pop-up ads from a free game. All of these count as microtransactions.

Loot boxes are, as the name suggests, boxes that contain loot of some sort. In general these are random (or partially random) assortments of items, some of which are more desirable than others due to being rarer or more powerful. These items can be cosmetic or functional. Sometimes loot boxes are earned by in-game actions, such as defeating a particular challenge or spending a certain amount of time playing. Frequently, however, loot boxes are sold for real money; this may be instead of or in addition to being able to acquire them in game. I will be concentrating on loot boxes sold for real money, a specific kind of microtransaction which have garnered a lot of attention lately due to the random nature of their rewards.

Lastly, freemium games are games which have been monetized in a particular way, namely, they are free to download and play, but they attempt to get the player to spend real money to obtain some kind of in-game item or advantage. In other words, they are games which rely upon microtransactions for their business model. These can be relatively harmless, such as a games which have a free demo version and allow the purchase of the full game. Alternately, they can be games which seem to exist only to try to extract as much money as possible from the player. The range is wide.

C. Distinctions

In addition to this terminology, three sets of distinctions are relevant for this discussion. First, a microtransaction can be random in nature (such as loot boxes) or it can have a fixed-reward. In the latter, a player knows exactly what she is purchasing and how much it will cost her. In the former, a player knows how much she is paying for the loot box, but she does not know what is inside; as such, it is far more difficult to calculate whether the expenditure is worth it. This sort of gambling is what troubles many people about loot boxes, particularly since there is a concern that the reward mechanism is addictive, so a player may end up spending money far past the point of reason in pursuit of an item.

Second, the nature of what is being purchased is relevant. Some microtransactions are for purely cosmetic items. *World of Warcraft*, for instance, allows players to purchase certain pets or mounts for real money; these are largely cosmetic in nature.¹ Others are functional in nature; *Game of War: Fire Age* (Machine Zone, 2013) allows a player to spend real money on a shield that protects his city from attackers for a period of time. Since functional items affect gameplay in a way that cosmetic items do not, they are the source of more concern to most gamers. Simply put, people rarely see it as unfair if a player can spend real money to buy a particularly attractive mount, but they do see it as unfair if players obtain an in-game advantage by spending money.

Lastly, there is a difference that stems from the in-game availability of what is being purchased for real money. Frequently microtransactions exist to speed up the acquisition of an item which could be obtained in the game if a player wanted to spend the time and effort. For instance, the designers of *Middle-earth: Shadow of War* claimed that real money transactions simply offer a short-cut but that all of the items could be obtained without spending any real money if the players were patient. (Schreier, 2017) Sometimes, however, items are offered for real money that cannot be obtained in any other way; a familiar example to many gamers might be the purchase of a collector's edition of a game which contains exclusive in-game items. In this case, the items are only available for real money.

D. Ethical concerns

With these distinctions out of the way, we can now consider the ethical ramifications of real money purchases in games. These purchases can take place in different ways. Sometimes players will directly purchase an item with real money. Other times the player will instead purchase a special currency which is then used to purchase certain items. Thus instead of buying an item for gold (the in-game earned currency) a player may need to spend gems (which are only obtainable by paying real money for them.) This distinction is not ethically important for us; from this point forward, I will simply speak of items bought with real money and include items purchased via the indirect method as well.

Using the distinctions I made in the previous section, we can separate items into categories. The first two distinctions will prove to be the most relevant ones, meaning that there are four types of item: fixed cosmetic rewards, random cosmetic rewards, fixed functional rewards, and random functional rewards. As it turns out, the question of whether an item is available by expending in-game effort or only real money will mainly be relevant in the case of fixed functional rewards, so I will leave that distinction aside until we reach that section.

In terms of ethical theory, I am approaching this from a deontological standpoint. This means that I take people to have intrinsic worth. They cannot simply be used as a means to an end – their own desires and ends must be respected as well. In terms of this discussion, that largely means that any scheme that treats players simply as a means of generating money will be

¹ I say “largely” cosmetic because it is an advantage to have an in-game mount, but most players already have one; as such, purchasing a mount for real money does not bestow any particular in-game benefit – it just looks different. Similarly, while Blizzard introduced a pet battle system, pets were available for purchase before that time (when they were purely cosmetic), and players will rarely buy a pet due to its pet battling ability since the strongest pets tend to be available only in-game. Again, the pet is purchased because of its aesthetic value, not its functional value.

unethical. While game designers no doubt wish to make money on their game, this should not be their only motivation – designers need to keep in mind what players might want and why they play games.

a. Fixed cosmetic rewards

When considering the categories of purchasable items, fixed cosmetic rewards are the least concerning, ethically speaking.² Essentially, these are items that probably would not exist without the microtransaction; they are not necessary for the game, and the designers might not otherwise spend the time to create the items. The fee thus helps justify the time and money spent by artists and other designers on these items. A player can play *League of Legends* (Riot Games, 2009) just as well in the default appearance (or “skin”) of a character as he can in a fancy one. Similarly, Blizzard frequently offers charity pets for sale, where players can purchase an in-game pet and Blizzard donates the revenue to charity; it is common to see this occur after natural disasters. (Blizzard Entertainment, 2017) This is not unethical because the company is completely upfront about what the money is for and, once again, it is not an item that will give the player any advantage. In all of these cases the designers created items with no intention that they will alter the game experience – they are simply supposed to be fun extras for players. Players who choose not to purchase these items are at no disadvantage to those who do.

This is not to say that no ethical issues can arise from the sale of fixed cosmetic rewards. A designer will still need to consider how the items are marketed, and it could be possible to market them to child players, say, in a predatory way. There could also be ethical issues that arise from the pricing of those items, though if designers tried to charge too much they might find that players were simply unwilling to purchase the items. But these sorts of ethical issue are more generally related to sales and marketing techniques in general rather than being specifically tied to video games.

Similarly, there are concerns about whether players truly have rights over their purchased virtual item, given the user agreements packaged with most games; if a company chose to simply delete a virtual item, they would probably have that legal right regardless of the fact that the player has purchased it.³ However, this issue seems only tangentially related to the real money aspect of the game; players would probably not be much happier to have an item deleted that they had purchased an item for in-game currency or earned through some in-game actions. This points to a set of ethical issues with respect to whether players have any rights in virtual worlds and the objects they contain, but the real money aspect of it is, again, secondary.

b. Random (cosmetic and functional) rewards

Random rewards (both cosmetic and functional) such as loot boxes are ethically problematic. This is particularly the case if the player does not know how likely the possible rewards are since essentially it is then impossible for the player to evaluate whether the purchase is worth it. One of the defenses of freemium games made by Oh and Ryu (2007) is that players can pay for only

² They have, in fact, been largely ignored by other authors at times, such as Kimppa, Heimo, and Harviainen (2015).

³ This is not universally agreed upon; see (King, 2017) for a possible legal defense of players’ rights over purchased virtual items.

what they wish to; this is in contrast to a subscription model in which players essentially pays for everything in the game, whether he wishes to use it or not. This argument only works, however, if the players know what they are purchasing, which is not the case with respect to random rewards. Furthermore, while freemium games may lower the cost of entry to a game and thus include players from lower socioeconomic statuses, random rewards are unlikely to help this; a wealthy player could afford to keep buying loot boxes to try to get a desired item, whereas a poorer player could not.

Moreover, there is the concern that this imports a kind of gambling into the game because it allows for the exchange of real money in return for the chance of a good reward. A number of jurisdictions, ranging from China to Belgium, have restricted or banned the inclusion of loot boxes available for real money in games on these grounds. While a full discussion of the ethics of gambling is beyond the scope of this paper, gambling is often viewed both legally and ethically as having a special status that ordinary game playing does not. As such, there is a concern about casually including gambling in a medium which does not ordinarily contain it.

The first concern can be addressed by including the probabilities of each item that could be included in a loot box so that the player can decide whether to purchase it. The second is more difficult. In general, children are restricted from gambling and thus a video game which implements something like loot boxes runs the risk of violating this restriction; there is no real way to tell who is playing a game once it has been purchased. Moreover, gambling carries with it the risk of addiction. Typically we allow adults to decide whether to take that risk – forbidding it would be a fairly serious violation of personal autonomy, especially since many people are able to enjoy gambling without becoming addicted. Children, however, are not known for their impulse control. If a game is going to include gambling, it needs to be clearly designated as such so that players can decide whether they wish to engage in this activity; it should also not be marketed to children.

One of the key ethical questions about random rewards is why the designer is including them. If it is being included as a method of monetization, that might be okay as long as the player's desires are respected as well; simply treating the player as a cash cow is not ethically permissible since it uses them as a means to an end. Loot boxes are going to be more difficult to justify than fixed rewards, however, because the player has less control over the worth of the purchase – a designer would need to make the case that the random nature of the reward is itself part of what is valuable to a player.

There is one case where this is actually plausible, which is for the genre of collectible card games. We have had physical collectible card games for a long time; the most famous might be *Magic: the Gathering*, but there are certainly many others. Developers have also started creating electronic collectible card games such as *Hearthstone: Heroes of Warcraft* (Blizzard Entertainment, 2014). In these cases, a fundamental mechanic of the game is that players have to collect the cards – they are not simply provided. There is an expectation that the game will include randomness and that players will have to spend money to acquire the cards; this is off-set in part by the ability to trade cards (in physical versions) or sometimes destroy cards to create a virtual currency of some kind (in online versions.)

While concerns about marketing to children remain, the ethical rationale for including real money purchases for random rewards in collectible card games is fairly simple: it is the nature of the genre. Unless we wish to ban this genre of game entirely – which seems extreme – these games will include random rewards of this kind. However, this is not an argument that can be extended to loot boxes because there is no loot box-requiring game; they are tacked on to other genres of game. As such, games could be (and have been for decades) created without loot boxes, making the road to justifying their inclusion much harder for developers.

c. Fixed functional rewards

Leaving aside the recent popularity of loot boxes, the majority of real money transactions in games have been for fixed functional rewards. In many cases, the player is paying for a specific virtual item or amount of in-game currency; sometimes a player is instead paying to alter the game experience in some way, such as speeding up a particular task or removing advertisements from a game. Moreover, this purchase could be a shortcut to obtain items with less in-game effort or it could be for items which are unobtainable except via a real money transaction. I will consider each of these cases, however, note that I will not be distinguishing between the cases where a player can purchase currency versus where she can purchase specific items. Since the in-game currency is generally used to buy items inside the game, currency essentially functions as a kind of very flexible item.

i. Items as shortcuts

First let us consider the case where a real money transaction functions as a shortcut to obtaining an item. As (Kimppa et al., 2015) has noted (and every gamer worries about), allowing the purchase of functional items for real money raises concerns about the game turning into “pay to win,” where one’s progress in a game is not governed by skill or dedication but rather the amount of money that one spends in the game. Interestingly, Hamari et al. (2017) found that competition was fairly low on the list of motivations for why players spend money on in-game content, meaning that pay to win may not actually be a particularly large motive for players in general. This would fit with Evers, van de Ven, and Weeda (2015), who found that there is a stigma surrounding real money transactions in games – players who engage in them are viewed as less skilled. Furthermore, it is often perceived as a form of cheating, even if the designer permits it.

So why would designers include this in a game, if players don’t really seem to want it? The cynical answer would be that the designers simply want to make money, and there is likely some truth to that for many games. In a freemium game, this is the designer’s only method of being paid for a game, so it is understandable why a designer might want to push microtransactions on to the players of his game (even if the method of doing so is not always ethical.) But this is not the only motivation for real money transactions in games.

Consider *Diablo III* (Blizzard Entertainment, 2012), which was originally released with a real money auction house in addition to one that accepted in-game currency. This allowed players to buy and sell equipment for real money, raising the fear that it was a pay to win system. However, Blizzard’s stated motive for creating the real money auction house was “to provide a

convenient and secure system for trades.” (Hight, 2013) People already were willing to pay real money for items in *Diablo II* (Blizzard North, 2000); they simply did it through third-party sites. This, of course, was risky – it is hard to depend on the ethics of people who are already violating the Terms of Service by selling you items. This concern may be compounded by the fact that these items were not always acquired by legitimate means; frequently such items were created by duplication exploits or by running bot farms, i.e., lots of characters controlled by machines rather than people. The decision by Blizzard to open a real money auction house was one way of attempting to handle this problem; if they could not prevent real money sales, they could at least make certain that players were not getting scammed.

Ultimately, this was probably a mistake. Instituting the real money auction house ended up having bad consequences for the game. The entire formula of the *Diablo* games is to kill monsters in order to get better gear so that you can kill more powerful versions of those monsters; a large part of the thrill is the idea that you could get some really fantastic piece of gear this way. However, it was significantly less thrilling to receive that gear by purchasing it off the auction house. Moreover, it seemed to diminish players’ enjoyment even if they received the gear through the intended means; after all, there was almost certainly something better available if they just wanted to spend the money.

Eventually Blizzard removed both the real money and the in-game gold auction houses; they also went further in preventing these activities by making gear useable only by the character who found it. In this way, they also took away the ability for third-party sites to sell gear to players, thus accomplishing their original goal of helping to prevent their players from being scammed. However, while the real money auction house system caused problems for their game, the designers were not unethical by creating it; their desire to provide players with the service in a secure fashion was a laudable goal.

So one reason that a designer could include real money transactions in a game is simply due to the idea that some players want to trade money for items and the designer would rather that occur in a sanctioned fashion than a risky one. In other cases, designers have been more explicit about wanting to provide a shortcut for players. The designers of *Middle Earth: Shadow of War* announced that players would be able to buy loot boxes containing items that are available in the game but which are time-consuming to obtain; this was marketed as a way for a player simply to save time if she wanted to. In this case, the designers have created two different methods to get gear: by investing time or (real) money. Theoretically, then, players can simply choose how they wish to play (or even play a mix of the two methods.)

The idea that time and money can be traded off is the motivation behind much of the design for real money transactions in games. Much of the work, from an economic standpoint, involves finding the sweet spot where players see it as worth it to spend real money to save time. If the reward is too easy to obtain, they will simply spend in-game effort; likewise if it is too unreasonably priced, the player will either spend the time or will simply stop playing. (Guo, Hao, Mukhopadhyay, & Sun, 2015)

While I discussed problems with loot boxes in the previous section, the idea of using real money as a shortcut is controversial even leaving concerns about randomness aside. As one journalist

put it, “It’ll be impossible to play *Shadow of War* without getting that nagging feeling that the game is full of padding that you should be paying to avoid.” (Schreier, 2017) I suspect this is because gamers are accustomed to spending a lot of time playing a game in order to receive items but are not to spending real money on them. The former seems like the normal and proper way for a game to work; the latter seems like cheating to them, since it allows people to circumvent the “normal” method.

I am not convinced it is quite this simple, however. For the moment, I will set aside multiplayer games (which bring a different set of issues into play) and focus on single-player games. Many games allow the player to set the difficulty level of the game. This can be implemented such that players have to choose at the beginning of the game and it remains static throughout the game, or it can be changeable throughout the course of a game; if a player hits a particularly difficult fight, say, he might turn down the difficulty to get through that fight so he can continue in the game. It might well be possible for him to succeed in the fight without doing this; however, he may not want to spend the time it would take to implement an effective strategy, particularly if it would require different choices earlier in the game and thus would require replaying a large section of the game. Being able to alter the difficulty level makes the game accessible to people who could not otherwise experience the game, with little in the way of drawbacks – it is perhaps more work for the designer, but it has no negative consequences for people who do not wish to use the system.

Similarly, many players will use online guides to determine how to build their character or what gear they should be looking for. They may also use walkthroughs to get through particularly difficult or annoying missions in a game. In these cases a player could presumably spend the time to figure out the details herself, but many players do not want to do that sort of analysis and prefer to benefit from others’ work. Once again, these provide a way for players to succeed in the game who might not otherwise do so (or who might progress less in the game if they got stuck at a particular point.) These are usually community efforts and while the quality of advice may vary, there is nothing to render them unethical to create or to use.

In all of these instances players do not wish to spend time to accomplish an in-game task and instead accomplish it in some other way. Given that we are focusing on the purchase of functional items which are available in the game, allowing real money transactions for those items simply provides another method of substituting something for time. In games where the designer has created this option, it has no real difference than providing another difficulty option.

With that said, I would note that this requires the practice to be clear from the beginning of the game. Players can tell whether a game has difficulty options by either choosing one at the beginning of the game or by looking at the game’s options to see if there is a setting for difficulty. Similarly, to include real money transactions in a game, designers need to make it clear that they are an option and give some sense of their scope and price. If they do not, players risk succumbing to the sunk-cost fallacy, in which they reason that they should probably spend more money in the game because they have already invested so much in it – they feel it would be a waste if they did not continue paying. This is predatory; players should feel free to stop playing a game if they do not like how it is designed or see it as too expensive.

Multiplayer games are trickier than single-player games because there are greater worries about fairness. The idea that there is something unfair about trading real-world advantages (such as wealth) for in-game advantages is prevalent among gamers. (Grundy, 2008) Concerns about fairness did not really arise in single-player games because the only person advantaged or disadvantaged by a choice is the player himself – if he chooses to purchase items for real money, then 100% of the players of that game have done so; if he chooses to forgo those purchases, then 0% of the players have done so. Either way, everyone is on an even playing field. In a multiplayer game, you may have some people who are able to spend real money and some who are not.

This is, of course, also true of time – a person working multiple jobs or who has family commitments may not be able to spend the same amount of time playing as a student on summer break. Multiplayer games are intrinsically apt to be uneven. While a game designer can attempt to keep balance within the game, the real world will always affect how players do in a game, whether through time pressures from work or being unable to play certain games due to motion sickness. There are factors that simply are not within the designer’s control. Offering shortcuts through the game for money can be seen as a way of attempting to even the playing field for those with less time.

Ethically speaking, therefore, there is nothing intrinsically wrong with allowing fixed real money transactions for functional goods that are otherwise obtainable in a game. However, this does not mean that there are no restrictions on such sales. First, designers should be aware that allowing these purchases may well fundamentally change the nature of the game, as Blizzard learned after implementing the real money auction house in *Diablo III*. As such, designers should decide from the beginning whether they are including microtransactions of this sort, since that will affect the game (and possibly players’ decisions on whether to play the game.)

One of the reasons why players react so negatively to the idea of real money transactions in video games, I believe, is that they alter the accepted (implicit) rules for playing: one’s success in the game should depend solely on what occurs in the game. I have argued that this is never entirely true, but this is certainly the perception of many gamers. Including real money transactions feels like cheating because it violates these rules. However, if a game is created with real money transactions designed in from the start and clearly communicates that to players, essentially it is simply a game that operates under somewhat different rules. It is ethically problematic to change the rules of a game in the middle of the game (although we sometimes do so if the rules appear to be unintentionally unfair), but it is not ethically problematic to agree beforehand to play a different game.

The second issue that designers should bear in mind when adding these transactions is that the game may have very different ways of determining player status than usual. What I have called “functional” items are simply items that affect gameplay. The most obvious are things like a powerful weapon that allows a player to defeat difficult foes. However, in multiplayer games an item can also affect gameplay less directly by serving as status symbols. Since frequently the best items can only be obtained through difficult encounters, they demonstrate a player’s prowess at the game. One of the reasons that players view real money purchases negatively is that they think such players are less skilled; the player has simply bought an item rather than

obtaining it through her own work. (Evers et al., 2015) If the items can be obtained either by paying real money or through in-game actions, the items will no longer signal whether a player has spent effort on obtaining them; they may thus no longer function as status symbols in the same way.

This is an interesting issue because both Lehdonvirta (2009) and Hamari et al. (2017) have found that one motivation players have for purchasing in-game items is for social reasons such as status. This seems to imply that such items can only bestow status on players if other players do not know that the items were purchased. Thus a player who illicitly purchases something may have people treat them with a high status; however, if purchasing items becomes common (such as if the designer implements the capability), then players will be aware that the items are imperfect indicators and they may no longer function as status symbols.⁴ Purchasing status in games only works if people have no reason to suspect you have done so.

Of course, items have never been a perfect indicator of merit, since players can sometimes obtain run-throughs from highly skilled (or geared) characters in order to acquire items which their own skill is not sufficient to get. Nevertheless, designers should be aware that this will have an effect on how players view each other and should carefully consider how they want to respond to this. For instance, they may decide that only low or mid-level items should be purchasable; high-level items would have to be obtained by in-game effort. This would leave some items as status symbols.

The last point designers should consider is that allowing the substitution of money for time may doubly disadvantage some players. Players from lower socio-economic brackets may be working multiple jobs at low rates of pay; as such, they are lacking both money and time. They will thus be worse off than people who can use one of these factors to advance, and much worse off than people who can use both of these factors to advance. Designers need to think about the ramifications of including real money transactions in games from this perspective.

This is not to say that real money transactions in games will always disadvantage those of lower socioeconomic status. Both Davidovici-Nora (2013) and Oh and Ryu (2007) note that freemium games may actually make games more accessible for gamers who could not afford the upfront cost of a traditional game. Moreover, since players only have to pay for the content they are using, this gives them more control over what they are purchasing. With that said, the freemium business model relies upon in-game purchases, which suggests that most of their offerings will need to be unobtainable through reasonable in-game effort in order to tempt players into spending money. I will discuss this further in the next two sections, but for now I simply wish to note that while in theory freemium games may benefit players with less money due to having no upfront cost, in practice they are frequently predatory.

ii. Real money-only items

So far I have only discussed using real money as a kind of shortcut to obtaining a functional item; all of the items would be obtainable for in-game effort as well as via a real money

⁴ This would also be a problem if an item were only available for real money, since it would be obvious that a player had obtained it through purchase rather than effort.

transaction. However, there are also cases where games offer items which are only obtainable for real money. Sometimes this can occur through the usual method of microtransactions in games. However, it can also occur when a game gives players who pre-order a game or buy a collector's edition of a game special items; this is common in many games that do not otherwise include real money transactions. Frequently these items are cosmetic, such as a pet or a special banner, but sometimes they can include functional items such as unique armor; *Dragon Age: Inquisition* (BioWare, 2014), for instance, did this.

I would note that, in general, I will be only considering items which are available for real money and superior to other items. A designer could offer items for sale which were less valuable than (or equal to) items which could be acquired through gameplay. It is difficult to see their motivation to do this, however. The items would not be desirable for themselves because they are mediocre; moreover, it is not clear why the designer would bother creating entirely different weapons if they are identical in function to in-game items. As such, this strikes me as a fairly unlikely scenario. However, in this case the items would essentially qualify as a shortcut rather than being intrinsically desirable, since presumably a player would prefer to replace them with better items (which could only be obtained through the game.) This case would thus collapse into the argument concerning items as shortcuts. From this point on, I will be considering items which give players an advantage over people who do not spend real money on items.

In a single-player game, designers once again do not have to worry about whether these items are overpowered since if the player decides that he does not like how the items change gameplay, he can choose not to use them; there is only a single player in the game. This does not mean that single player games are immune from ethical concerns about such content, however it more often emerges in the guise of DLC (particularly so-called "Day One DLC," which means downloadable content that is available for purchase on the same day the game itself is released.) *Star Wars: Battlefront II* fell afoul of this because many players felt that a game should not charge both for the base game and also to unlock specific characters. This is debatable, since characters have been added in DLC for a long time. However, while wishing to sidestep the debate over day one DLC as much as possible, suffice to say that the main concern for designers here is going to be what content is included in a DLC as opposed to the base game and how it is priced; questions of fairness within the game are essentially irrelevant.

In a multiplayer game we do have fairness concerns, which is probably one reason that bonuses for buying a game often include cosmetic items rather than functional ones. Since these items are not available simply through gameplay, we cannot make the argument from the last section that this is just a shortcut or alternate path to obtaining these items; this is, in fact, the only path. It seems fairly clear that it will not be ethical to add these in partway through the game, as before, but would it be acceptable to have these items as long as everyone knew beforehand? Aren't we just changing the rules of the game again?

Consider a game that does not normally include real money purchases but has a collector's edition or pre-order with unique items. The argument that we are simply changing the rules of the game will likely not work because the purchase isn't actually taking place in the game. Moreover, we have not, in fact, changed the rules to allow for real money purchases – the unique

items are a kind of ad hoc addition to the usual items in the game. While there is nothing wrong with giving an in-game incentive for purchase, the item should stay cosmetic in nature.

For games that allow real money purchases on a broader scale, it depends on the justification for having these items and on the type of game. It may be possible to justify this for a freemium game based on the idea that it is necessary to monetize the game somehow; it is unreasonable to expect people to expend effort to create a game and not compensate them for it in any way. However, this strategy also has to respect the players' desires and ends as well as the designers', otherwise it can easily become predatory. To ethically implement a freemium game of this sort, the designers would need to be respecting players' ends by making a game with a lower entry cost than a traditional game, but where players would need to spend money later to obtain certain items. This is not inherently unethical – it would just need very careful implementation not to cross the line into treating players simply as money generators.

For a non-freemium game justifying this kind of transaction is much harder, because it is difficult to see how this could possibly be respecting players' ends. The argument of lowering or removing the cost of entry will not work if the game is more traditionally priced. Furthermore, most people play games because they want to play the game – having items which are not obtainable by playing the game seems fairly antithetical to this; it may be fun to defeat a tough creature and get an awesome sword, but it is not a lot of fun to hand over a credit card number and get an awesome sword. While not all portions of a game need to be fun, it is difficult to see what having this sort of purchase available does for the player. It is easy to see what it does for the designer – it is a way to entice people to spend real money on a product. However, if the game has already been paid for, this feels more like price gouging and seems to be treating the player simply as a means to generate more money; it does not seem to take their ends into account at all.⁵

iii. Changes to the game experience

Instead of purchasing an item, a player might instead spend real money to purchase various changes to the game experience itself. For instance, in freemium games players are often forced to watch ads at various points; a game might allow players to remove those ads for a fee. Similarly, there could be improvements to the user interface, such as the addition of a replay camera which Oh and Ryu (2007) discuss. One of the most familiar (and notorious) types of micropayment to fall under this category would be paying to remove a time-gate, such as rushing the construction of a building. This category is fairly varied, which makes it difficult to draw broad conclusions, but I will make a few general points.

A one-time fee to remove ads or improve the user interface seem largely unproblematic, assuming that the costs are easy to determine and reasonable. Since I do not view advertising as inherently unethical, unlike Kimppa et al. (2015), including ads is a reasonable strategy for monetizing a free game; allowing an option for ad removal essentially allows the players to

⁵ Interestingly, Blizzard's move to allow the trading of tokens for both gold and real money now means that a number of things that previously were only available by out-of-game effort (such as pets) are now obtainable for in-game effort because you could earn gold in the game and trade it for the real world money to buy them. This actually moves back towards having everything attainable for in-game effort, though in a somewhat indirect fashion.

decide how they wish to compensate the designer for the game. Similarly, having a stripped-down version of the user interface available for free and allowing players to purchase upgrades is not inherently unethical, assuming the game is functional without those upgrades. (If the game is not functional without the upgrades this would qualify as deception since the game would appear to be available for free but actually require an additional purchase to make function.)

Time-gating is far more problematic. A common tactic in freemium games is to design them such that certain actions (training troops, constructing buildings, etc.) take a period of time to complete; you can pay a small monetary fee to speed this up or make it happen instantly, but the actions would eventually occur even without paying the fee. Frequently, the period of time increases as you play the game more; an action that took 15 seconds to complete might later take 15 minutes or an action that took an hour might now take a day. As Kimppa et al. (2015) put it, this is sometimes not pay to win so much as “pay to pass boring.”

One of the more egregious examples of this model is *Game of War: Fire Age*. In this game, players build cities, train troops, and attack the cities of other players. Theoretically, one could play this game without paying, however, in practice other players who pay to train troops instantly will likely destroy someone who is trying to train their troops over time. In this case, the player who spends real money will have a huge advantage over a player who does not.

This same issue can occur for selling items that will grant the player various boosts or advantages for a period of time, such as increased experience or safety from other players' attacks. For instance, *Game of War* also sells shields which protect your cities from other players while you are offline. In other words, it is designed to get you to pay money when you want to play the game and also pay money when you want to put the game aside for a period of time. (Hill & Croghan, 2015) This is perhaps the most quintessential example of a pay to win game, although perhaps it is more accurate to deem it a pay to survive game.

In a competitive multiplayer game, real money transactions like this are very difficult to implement in an ethical fashion because they largely render what players do in the game irrelevant; winning just becomes a matter of who spends the most money. While I have argued that real world factors do play a role in how games are experienced, in most games it still matters what a player does in the game, in other words, progressing in a game involves in-game actions of some kind. Yet if winning the game is largely a matter of spending money, then attempting to achieve success within the game is, in fact, a losing strategy.

Even in the case where there is no competitive advantage to spending real money, it will be hard to defend most games which implement time-gating. (Hamari & Keronen, 2017) discusses the fact that one of the key aspects in designing microtransactions is making the game fun enough that players want to keep playing but frustrating enough that they will want to make the real world purchase in order to succeed. In this case, the designers' main goal seems to be to keep players playing in order to extract money from them; this is not respecting them as persons. Perhaps if a game involved very minimal time-gating that the truly impatient could bypass for a small fee it would be okay. However, the typical sort of steadily increasing delay is not ethical.

From an ethical point of view, boost items are complicated. Clearly the sort of shield that I discussed above is unethical since it is essentially required in order to stop playing a game. Any game that attempts to extract money from you in order to stop playing is fairly clearly not treating the player as an end-in-herself.

Sometimes games will have a one-time boost for purchase. For instance, players in *World of Warcraft* can pay real money in order to boost their character's level – instead of having to play a character in order for them to reach level 110, you can pay a fee and have it happen automatically. On the surface, this may seem unfair, however, I suspect it was implemented in part to allow players to experience the new content without having to spend a lot of time on the old content; if all of your friends are level 110 and have bought the newest expansion, you may not want to spend weeks trying to catch up to them so that you, too, can see the new content. You want to play with them now. Once again, this is a kind of monetary shortcut. Furthermore, since everyone who buys the expansion gets one free boost, it does not seem to have the same kind of unbalancing worry that other real money purchases do. This is an example of a real money boost that is ethically permissible.

Other times games will sell boosts such as gaining extra experience for a certain period of time. In general, the ethics of this will come down to how central they are to the game. If they are nice but have little impact on the gameplay overall, then essentially we can view them as akin to cosmetic items, which were ethically acceptable. However, if they are required to do well in the game, then they are more akin to the problematic time-gating discussed above.

E. Conclusion

Overall, the ethics of paying real money for in-game items in video games is a complicated matter. Single-player games are much simpler than multiplayer games, since in those cases the designer does not have to worry about game balance or fairness to other players. For multiplayer games, the safest form of real money transactions are when games offer fixed-cost cosmetic items. Since these are not required to progress in a game, players are essentially just paying for the time and effort to create the item.

Random methods such as loot boxes are inherently problematic if the odds are not known to players, since there is no way to evaluate whether spending money on them is worth it. Even if the odds are known, they are very similar to gambling and run similar risks, including a worry about addiction. Since there aren't any games that really require loot boxes per se – setting aside collectible card games – they are ethically suspect and should be avoided.

Fixed-cost functional items can be ethical if they function essentially as shortcuts to attaining items available in the game; in this case, the designer is offering an alternate path through the game to people who have more money and less time. However, adding these should still be done carefully – doing so risks altering the nature of the game hugely, should not be done after a game is released, and could doubly disadvantage players who lack both time and money. Furthermore, player hierarchies may be changed since social cues based on what items one possesses will no longer signal that the player has achieved them through in-game effort.

If the items are only available via real money transaction then designers need to be very careful about including them. It might be possible to do this ethically for a freemium game, since commercial games do need to be monetized somehow and the end of making games available at a lower (or nonexistent) entry cost is not inherently a bad end. However, doing this in non-freemium games is going to be difficult to defend, since designers seem simply to be treating players as means of generating money. This is also a problem for changes to the game experience, such as removing time-gates. Alterations that are available for a one-time fee, such as removing ads, may not be problematic. If a designer puts in frustrations simply to extract money from the players to remove those frustrations, however, then the designer has acted unethically.

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