

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

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**Abstract:** In this paper I investigate the ethics of freemium games, microtransactions, and loot boxes. Three distinctions are relevant. 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; this is particularly pronounced in multiplayer games, where a player might have an advantage over another through the expenditure of real money. Third, there is a difference between items which are obtainable both for real money and for in-game effort and items which are only obtainable for real money. Ultimately, all three of these distinctions will prove necessary to show that fixed cosmetic rewards are ethically permissible, random rewards of all types are ethically problematic, and fixed functional rewards can be acceptable, but only under certain conditions.

### A. Introduction

One of the biggest current controversies surrounding video games involves loot boxes, which are virtual containers which, when opened, contain one or more in-game items selected randomly from a list of possibilities. On its face this may not seem objectionable: video games have been putting random items in treasure chests for decades. However, loot boxes are often purchasable for real world currency rather than by defeating enemies in the game or accumulating in-game currency.

The prospect of obtaining in-game items for real money (microtransactions) has been controversial for years. In 2009, *World of Warcraft* (Blizzard Entertainment, 2004) began offering in-game pets to 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 lead to buying 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. Players often grumble about these “freemium” games, but most 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 came to a head in 2017 with *Middle-earth: Shadow of War* (Monolith Productions, 2017) and *Star Wars: Battlefront II* (EA DICE, 2017), both of which were announced as containing microtransactions.<sup>1</sup> A number of jurisdictions have indicated legal interest in whether loot boxes

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<sup>1</sup> Interestingly, *Star Wars: Battlefront II* removed microtransactions prior to release due to the backlash; *Middle-earth: Shadow of War* removed them about 10 months after release.

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.<sup>2</sup> 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.<sup>3</sup> Concerns about these forms of monetization are grounded in larger ethical questions involving fairness, deception, and exploitation. Particularly in multiplayer games, the ability to purchase items raises questions about whether this is an unfair way of gaining advantages in the game; I will argue that this is not necessarily the case, given other commonly accepted methods of progressing quickly in a game. However, game designers cannot be deceptive, such as by hiding the need for microtransactions until a player is already invested in the game. In such cases players cannot make informed judgments about whether to play the game, which can easily lead to exploiting players by trading on the sunk cost fallacy. Once a player has started spending real money on a game there is a large temptation to continue; this is particularly problematic for random methods of purchasing rewards, such as loot boxes, but is not unique to them.

Ultimately, the ethical status of a microtransaction depends on several factors. I argue that loot boxes and other random methods of obtaining items are unethical. In part this is due to concerns about casually including gambling in video games and in part it is due to the potentially predatory nature of these microtransactions. Fixed-cost cosmetic items are generally acceptable (with a few caveats) due to their relatively low impact on gameplay. Fixed-cost functional items are ethical if the purchase simply serves as a shortcut to obtaining items that are also available through gameplay; items which are only available for purchase, however, are subject to more constraints. In a freemium game they may be permissible, assuming the designer is not being deceptive. However, they are generally unethical in non-freemium games, since a player has already purchased the game; adding microtransactions is exploitative. Similar constraints apply to changes to the game experience, such as time-gating. In particular, the fairly common design practice of introducing frustrating elements into a game solely to drive the purchase of microtransactions is unethical.

## 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. One common type of microtransaction would be for 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. Instead of a virtual item, a player could be purchasing a temporary boost of some kind, such as an increase to the experience

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<sup>2</sup> Specifically, Belgium has declared that all loot boxes purchased with real money are gambling and thus illegal in video games (Belgian Gaming Commission, 2018); the Netherlands has banned loot boxes with transferable contents as constituting a form of gambling. (Netherlands Gambling Authority, 2018)

<sup>3</sup> 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.

she earns while playing over the next week, or a 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; I will be concentrating on these.

Lastly, freemium games are games which have been monetized in a particular way: they are free to download and play but 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 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 or 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, say, but she does not know what is inside. This sort of gambling is what troubles many people about loot boxes,<sup>4</sup> particularly since there is a concern that the reward mechanism is addictive and 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 – items that affect appearance but not gameplay. *League of Legends* (Riot Games, 2009), for instance, allows players to purchase different appearances (“skins”) for their characters; these do not change the character’s abilities in any way but may be more aesthetically appealing.<sup>5</sup> Other purchases are more functional in nature; for several years *Game of War: Fire Age* (Machine Zone, 2013) allowed a player to spend real money on a shield that protected his city from attackers for a period of time.<sup>6</sup>

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<sup>4</sup> This view is widespread, having formed the basis of the bans in both Belgium and the Netherlands, as mentioned above. It also underpins the a recent recommendation to ban the sales of loot boxes to children in the United Kingdom. (United Kingdom, 2019)

<sup>5</sup> As one of my anonymous reviewers pointed out, the distinction between cosmetic and functional items may be somewhat less clear-cut in certain types of games. *World of Warcraft*, for instance, has many players who pursue a variety of different goals. An item such as a pet or an attractive tabard might not be functional with respect to combat but could greatly enhance role-playing, thus proving functional to one player and not another. This distinction is sharper with respect to games such as *League of Legends* that have very specific objectives and little room for alternate play that ignores these objectives. It may be that in sandbox-style games all items should be treated as (potentially) functional.

<sup>6</sup> This was ultimately changed in mid-2018 so that peace shields are no longer purchased with real money.

Lastly, there is a difference that stems from the in-game availability of what is being purchased. Frequently microtransactions exist to speed up the acquisition of an item which could be obtained through gameplay 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 offered a shortcut but that all of the items could be obtained without spending money if the players were patient. (Schreier, 2017) Sometimes, however, items are offered for purchase that cannot be obtained in any other way; a familiar example might be a collector's edition which contains exclusive in-game items.

#### D. Ethical Framework

In terms of ethical theory, I am approaching this from a deontological standpoint. The heart of this view is Kant's idea that I am not morally unique – if something is acceptable for me to do in a particular set of circumstances, then it is morally acceptable for others to do in those circumstances as well, and vice versa. This means that I cannot have one set of rules for myself and another for other people; instead, my actions need to be rationally universalizable. (Kant, 1996/1785)

Universalization is not a foreign concept to gamers, although it is more often expressed in terms of fairness. For instance, in *World of Warcraft*, there are 24 different class specializations that primarily focus on dealing damage. The game's developer continually adjusts how those specializations work in order to ensure they do roughly the same amount of damage overall. This is so gamers do not feel compelled to play a specific type of character simply because it is much more powerful than the others. If all of the specializations are viable, then gamers feel like they have more choice. This is universalization: these specializations are designed to do roughly the same amount of damage so that gamers will have a similar ability to perform regardless of which they choose.

The idea that we need to treat people fairly gives rise to another way of looking at our ethical obligations, namely, that we owe people certain kinds of treatment simply because they are people. In particular, it is wrong to use a person as a means to get what you want without thinking about what that person wants. More formally, people cannot simply be treated as a means to an end – they have intrinsic worth.<sup>7</sup> Thus while you can use your laptop however you want, you cannot treat a person that way.

Game designers' duties emerge from the various roles they play: they are people, members of a community, creators of a game, and distributors of a product. These roles entail different ethical obligations; for the purposes of this paper, I wish to focus on the economic aspects of video game design, which means focusing on designers as creators and distributors. One thing to note is that there is nothing inherently unethical in creating or selling a product with the intention of making a profit. It is reasonable to expect compensation for taking the risk of creating something. It is only unethical if the business (or game designer) fails to take their customers' needs and desires into account as well. For instance, a business could make a lot of money by creating an addictive substance and marketing it as non-addictive. But this is unethical because

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<sup>7</sup> This is equivalent to the universalization requirement: if I have goals that I want to achieve and I do not want to be used by other people, universalization demands that I extend that treatment to other people.

few people desire to unwittingly become addicts. From a game design perspective, it is ethical to design games with the goal of selling them and living on the profits. It is only unethical if the designer treats potential players purely as a means of generating revenue rather than considering what they might desire from the game experience.

Increasingly there is a push to see a game as a service rather than a product and developers as service providers. This stresses the parallels between games and other diversions or entertainments – you can pass the time by dining at a nice restaurant, visiting an amusement park, or playing a video game. This can be a useful perspective for emphasizing the continuing aspects of video games, which may give rise to ethical obligations. For instance, many multiplayer games are hosted on the developers' servers, which keeps players and designers interacting even after purchase.

Making parallels to services can be helpful in teasing out certain duties, but caution is warranted. There are important differences between games and restaurants or amusement parks. Put simply, video games are *games*. In many multiplayer games, for instance, there is a competitive aspect that does not exist in these other situations. While in some sense visitors to the park are competing for space in rides, say, that is a by-product of the park's design, not its main objective. This makes it rather different from a competitive first-person shooter where the point is to beat the other players. Certain values may emerge from the game-ness of video games which are not relevant in these other situations.

With this caveat in mind, we can now consider the ethical ramifications of microtransactions. 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 availability will mainly be relevant in the case of fixed functional rewards, so I will leave that distinction aside for now.

#### E. The problem with random rewards

Random rewards (both cosmetic and functional) such as loot boxes are ethically problematic, particularly if the player does not know how likely the possible rewards are. In this case it is essentially 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 what they wish to; this is in contrast to a subscription model in which players pay for everything in the game, whether they use it or not. Their 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; wealthier players can afford to keep buying loot boxes to try to get a desired item, whereas poorer players cannot.

There is also concern that this mechanism introduces 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 purchasable loot boxes on these grounds. The ethics of gambling is a complicated topic,

generally split between those who advocate for tolerance of the behavior and those who believe it is sufficiently harmful to an individual to be impermissible. (McGowan, 1997) If gambling itself is unethical, then introducing a gambling mechanism into a game is unethical. If not, then any argument against loot boxes would need to take a different perspective. Settling the question of whether gambling is ethical is beyond the scope of this paper, but it is also unnecessary for our purposes. Gambling is generally viewed as having a special status that ordinary game playing does not; the concern about loot boxes can thus be reframed into a worry about casually including gambling in a medium which does not ordinarily contain it.

The issue of evaluating whether loot boxes are financially worth paying for can be addressed by disclosing the probabilities of each possible item in a loot box so that players can make an informed choice.<sup>8</sup> The gambling issue 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.<sup>9</sup> 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 they are being included as a method of monetization, that might be acceptable 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. Random rewards are going to be more difficult to justify than fixed ones, however, because the player has less control over the worth of the purchase – a designer would need to argue that the random nature of the reward is itself part of what is valuable to a player.

One plausible case is the genre of collectible card games. We have had physical collectible card games such as *Magic: the Gathering* for a long time; developers have also started creating electronic collectible card games as well. 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.

While concerns about marketing to children remain, the ethical rationale for including real money purchases for random rewards in collectible card games is 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

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<sup>8</sup> Black and Ramsay (2003) argue similarly that commercial gambling providers must provide sufficient information to give their customers the capacity to make informed decisions.

<sup>9</sup> This is particularly pressing since Zendle and Cairns (2018) found that loot boxes are connected to problem gambling.

game. As such, games could be (and have been for decades) created without loot boxes, making it much harder to justify their inclusion.

#### F. Why even worry about fixed rewards?

Leaving aside the recent popularity of loot boxes, the majority of real money transactions in games have been for fixed functional rewards. One might wonder why we have to worry about the ethics of them at all. After all, video games are a form of entertainment; no one needs them to survive. As such, they are optional activities. If there are aspects of the game that you don't enjoy or approve of, such as paying real money for in-game items, you can always simply avoid playing the game.

From a pragmatic standpoint this is reasonable, but it is not convincing theoretically. The fact that an activity is optional and a person could choose not to engage with it does not thereby excuse all behavior within that activity. A person may stay with a physically abusive partner, but that does not render the abuse ethical; similarly, while fraternities are unnecessary for college life, that does not excuse harmful hazing activities. It is true that the people in these cases have some freedom to leave – but they are entitled to ethical treatment regardless. Pragmatically, walking away may be wise. Ethically, it is not required.

Admittedly, video games are rather different than either of these examples – there could be social pressures that compel people to stay with abusive partners or participate in theoretically optional activities that their peers are engaged in. However, even if we limit our scrutiny to entertainment, the argument does not succeed. Entertainment may be more frivolous than other matters, but it retains moral burdens. For instance, the United States desegregated not only schools and work places but also movie theaters. Similarly, the Americans with Disabilities Act of 1990 explicitly applies accessibility requirements to entertainment venues and places of recreation. From a Kantian perspective, universalization does not apply only to deeply serious matters; people have a right to fully participate in society, even in areas of entertainment, and we have an ethical burden to ensure this is possible.

Even granting this burden, one might still wonder about focusing on microtransactions. When you go to a restaurant, you may buy some things a la carte, and when you go to an amusement park there are additional fees for food or souvenirs.<sup>10</sup> So what is the problem with having people make in-game purchases, either in addition to or instead of paying an upfront price for the game? Why scrutinize the ethics of purchases in video games when they seem unproblematic elsewhere?

There are a number of reasons that these transactions have attracted attention. First, the idea of paying for virtual items is relatively new compared to paying for food; restaurants have existed for millennia, whereas video games and virtual worlds have not. Similarly, we have long had laws governing physical property, but cases involving virtual property are relatively recent.<sup>11</sup> The fact that something is new doesn't make it unethical – but it does invite examination of a sort we generally omit for customary activities.

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<sup>10</sup> My thanks to one of my anonymous reviewers for these cases.

<sup>11</sup> Litska Strikwerda (2012) discusses early legal cases involving virtual property.

Second, the fact that we are discussing games is ethically relevant. In general games have objectives and rules that govern how it is permissible to reach those objectives. Anything that appears to violate those rules is likely to be questioned. This is particularly the case with things that would change how the game is played; as Kai Kimppa noted, it would seem wrong if a player could simply buy a fourth strike in baseball.<sup>12</sup> Of course, money also affects success in baseball since some teams are able to buy better equipment to train on. But rarely is money's influence as direct as microtransactions are. Moreover, video games are increasingly designed with microtransactions in mind, which has not been the case for other games; as Miguel Sicart (2009) notes, designers are responsible for what they create and what behaviors their creations encourage.

In other words, people expect to pay for food at a restaurant. They may even expect to go to a restaurant and serve themselves, if it is advertised as a buffet. But they would probably be taken aback to be charged for the plates and silverware. Some cuisines are designed such that these things are, in fact, unnecessary. But for many cuisines it would be very difficult to eat without them. The question is whether (or when) microtransactions are like charging for food or charging for plates.

#### G. Which fixed rewards are ethically problematic?

There are a number of different kinds of fixed rewards, both cosmetic and functional in nature. In many cases the player is paying for a specific virtual item; the purchased item could also be available through in-game effort or be exclusively available as a microtransaction. Alternately, a player might pay to modify the game experience in some way, such as speeding up a particular task. I will consider each of these cases, however, I will not be distinguishing between purchasing currency and purchasing specific items. Since in-game currency is generally used to buy items within the game, currency essentially functions as a kind of very flexible item.

##### a. Cosmetic rewards

Fixed cosmetic rewards are the least ethically-concerning type of purchasable item. These items probably would not exist without microtransactions; they are not necessary for the game, and the designers might not otherwise spend time to create them. The fee thus helps justify this effort. A player can play *League of Legends* just as well in the default appearance of a character as he can in a fancy one; the real money purchase is just a fun extra for players. Players who choose not to purchase these items are at no disadvantage.

Ethical issues can still arise from the sale of fixed cosmetic rewards. For instance, designers need to consider how they are marketed, and it could be possible to market them to child players, say, in a predatory way. There could also be ethical concerns about the pricing of items, though designers that try to charge too much may simply find that players are unwilling to purchase them. But these sorts of ethical issue are more generally related to sales and marketing techniques in general rather than being specifically tied to microtransactions.

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<sup>12</sup> My thanks to Kai for this example during discussion at ETHICOMP 2018.



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 purchased virtual item, they might have that legal right.<sup>13</sup> 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 than 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. Functional items as shortcuts

So what about non-cosmetic rewards? First let us consider the case where a real money transaction functions as a shortcut to obtaining an item. As Kimppa, Heimo, and Harviainen (2015) have noted, 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 by the amount of money spent. Interestingly, Hamari et al. (2017) examined motivations for spending money on in-game content and found that competition was fairly low on the list, meaning that pay to win may not actually be a particularly large motive for players in general. Similarly, Evers, van de Ven, and Weeda (2015) found that there is a stigma surrounding real money transactions in games. Players who engage in them are viewed as less skilled; it is often perceived as a form of cheating, even if the designer permits it.

So why would designers include these purchases in a game, if many players view them negatively? The cynical answer would be that the designers simply want to make money, which is likely true for some 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 include microtransactions in her game (even if the method of doing so is not always ethical.) But there are other motivations for real money transactions in games.

Consider *Diablo III* (Blizzard Entertainment, 2012), which was originally released with an auction house that allowed players to buy and sell equipment for real money. Blizzard’s stated motive for creating the real money auction house was “to provide a convenient and secure system for trades.” (Hight, 2013) Players were already exchanging money for items in previous games; 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. The decision by Blizzard to open a real money auction house was an attempt to make certain that players were not getting scammed during these sales.

Ultimately this had bad consequences for the game. The 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 creatures. It proved significantly less thrilling to receive that gear by purchasing it from the auction house, and even gear obtained by killing monsters wasn’t very exciting since there was almost certainly something better available if players wanted to spend the money.

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<sup>13</sup> This depends on jurisdiction and is not universally agreed upon; see King (2017) for a possible legal defense of players’ rights over purchased virtual items.

Eventually Blizzard removed the auction house and addressed the problem by making gear useable only by the character who found it; this took away the ability for third-party sites to sell gear to players. While the real money 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 because some players want to trade money for items and the designer would prefer this to occur in a sanctioned fashion.

In other cases, designers have been explicit about wanting microtransactions 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 to save time if she wanted to. In this case, the designers created two different methods to get gear: by investing time or (real) money. Theoretically, then, players could simply choose how they wished to play.<sup>14</sup>

Even leaving aside concerns about random rewards, the idea of using real money as a shortcut is controversial. As one journalist stated, “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) This may be because many gamers are accustomed to spending a lot of time playing a game in order to receive items but are not used 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, since it allows people to circumvent the “normal” method.

It is not quite this simple, however. For the moment, I will set aside multiplayer games (which raise different issues) and focus on single-player games. Many games allow the player to adjust the difficulty level of the game. This can be implemented such that players choose it when starting a new game and it remains fixed, or it can be changeable throughout the course of a game; if a player hits a particularly difficult fight, say, he might temporarily turn down the difficulty to get through it. The player might be able to succeed in the fight without doing this, but he may not wish to spend the time it would take to implement an effective strategy. Being able to alter the difficulty level makes the game more accessible to the player, with little in the way of drawbacks – it may be more work for the designer but does not affect people who do not wish to use the system.

Similarly, many players use online guides to determine how to build their character or walkthroughs to get through particularly difficult missions in a game. In all of these instances players do not wish to spend the time needed to do something and instead accomplish it in another way. Allowing players to purchase functional items which are also available through gameplay simply provides another method of substituting something for time; it has no real difference than providing another difficulty option.

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<sup>14</sup> 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 design work involves finding the sweet spot where players see it as worth it to spend real money to save time. (Guo, Hao, Mukhopadhyay, & Sun, 2015)

With that said, designers who wish to include real money transactions in a game need to make it clear in advance and give some sense of their scope and price. Otherwise, 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; essentially 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 arise in single-player games because the only person advantaged or disadvantaged by a choice is the player herself. In a multiplayer game, you may have some people who are able to spend real money and some who are not, leading to an uneven playing field.

This is, of course, also true of time – a person working multiple jobs 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 players' success, and some factors are not within the designer's control. Offering shortcuts through the game for money can be seen as a way of attempting to even things up for those with less time.

One reason why many players react negatively to microtransactions may be that they alter a commonly accepted (implicit) rule 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 the case, but the perception remains; including real money transactions thus feels like cheating because it violates this rule. However, if a game is created with real money transactions included from the start and clearly communicates that fact to players, it is just a game that operates under different rules.<sup>15</sup> 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 are unintentionally unfair), but it is not ethically problematic to agree beforehand to play a different game.

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 statement comes with caveats. First, designers should be aware that allowing these purchases may change the game experience in unintended ways, as Blizzard learned in *Diablo III*. Furthermore, designers should decide early on whether they are including microtransactions of this sort, since that will affect the game (and possibly players' decisions on whether to play the game.)

Lastly, designers should consider is that allowing the substitution of money for time may doubly disadvantage some players. Players from lower socio-economic brackets may work multiple jobs at low rates of pay; as such, they lack both money and time. They will thus be worse off

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<sup>15</sup> This is akin to the fact that buffets are restaurants that operate under a self-service rule – as long as a diner knows what to expect, there is no reason to object that you have to serve yourself.

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.<sup>16</sup>

c. Real money-only functional items

So far I have only discussed using real money as a shortcut to gain a functional item; all of the items would be obtainable for in-game effort as well as via a real money transaction. There are also cases where games offer items which can only be purchased for real money. Sometimes this occurs via in-game microtransactions, however, it can also occur when a game gives special items to players who pre-order a game or buy a collector's edition; 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 the unique armor in *Dragon Age: Inquisition* (BioWare, 2014).

As a note, I am only considering items which are available for real money and superior to available in-game items. Items which are less valuable than those obtainable via gameplay would at best function as a shortcut, since presumably players would wish to replace them with better items (obtainable only through gameplay.) Alternately, the items could potentially have cosmetic value. The former case collapses into the argument concerning items as shortcuts; the latter case collapses into the consideration of cosmetic items. From this point on I will focus on items which give players an advantage over people who do not spend real money on items.

In single-player games, designers once again do not have to worry whether these items are overpowered since a player can choose not to use them if he does not like how they change gameplay. 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 downloadable content (DLC). These concerns center on what content is included in a DLC as opposed to the base game and how the DLC is priced; questions of fairness within the game are essentially irrelevant.

In a multiplayer game we do have fairness concerns, which may be why bonuses for buying these games often include cosmetic items rather than functional ones. Since these items are not available via gameplay, we cannot make the argument from the last section that this is just a shortcut or alternate path to obtaining these items. It likely isn't ethical to add these in partway through the game, as before, but is it acceptable to have these items as long as everyone knew beforehand? Are 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 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

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<sup>16</sup> Real money transactions in games need not 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. However, I would note that while in theory freemium games may benefit players in this way, in practice they are frequently predatory.

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, the ethical acceptability depends on the justification for having these items and on the type of game. It is easier to justify this for a freemium game since 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. One possibility would be to make a game with a lower entry cost than a traditional game but where players need to spend money later to obtain certain items; as long as the game does not cross the line into treating players simply as money generators this is an ethical design strategy.

It is more difficult to include this kind of transaction in a non-freemium game while respecting players' ends. The argument of lowering or removing the cost of entry will not work if the game is traditionally priced, and since the game has already been paid for, adding microtransactions feels like price gouging. Now, one might object that there are plenty of other instances where we pay extra for certain experiences. For instance, a museum might have an entrance fee but still charge for an special exhibit; similarly, a movie theater will charge you for a ticket to see a movie but also charge extra for popcorn. What would the video game example be any different?

There are two factors that matter here. First, in the museum case, it is generally very clear what experience your fee covers – for the base entrance fee you can visit some galleries, but others; the exhibit ticket will let you in to see the exhibit. It is less clear how a microtransaction such as purchasing a sword will affect your game experience. Moreover, the connection between the museum's fee and the exhibit is fairly transparent: usually it is a travelling or special exhibit, so the museum undoubtedly had associated expenses which the fee helps offset. Without the fee the exhibit might well be impossible, so the fee benefits the museum patron. Since video games have existed for a long time without microtransactions, it is less clear that the game items being sold would be impossible without them and thus the fee does not seem to benefit the player.

Second, the movie theater case involves two very discrete entities: movies and popcorn. It is easy to see the boundaries between them and you can enjoy one without the other. It is less clear whether this is the case for microtransactions. In some instances, parts of the game may be effectively impossible without paying for this item, in which case the concern stems from deception. It is perfectly acceptable to have parts of a game accessible only for an additional fee – this is what happens with expansions. But in the case of expansions, it is generally clear what is part of the base game and what is part of the expansion. If access to parts of the game is restricted unless a player engages in microtransactions and that fact is not clearly advertised, then the designers have covertly introduced an expansion. This is deceptive.

If the item does not restrict access in this fashion, then its appeal is likely that it makes the game easier in some fashion. This is more akin to time-gating, which I discuss below, since a person could put in the effort to complete tasks in the game without the item; paying for the item simply makes the game easier. The concern for multiplayer games (which we do not have for movie theaters and museums) is one of fairness. In a competitive game, an item which is theoretically

optional may be pragmatically required in order to compete. If a movie-goer chooses not to buy popcorn she is not hindered in her ability to view the film. If a gamer chooses not to purchase a weapon, say, through a microtransaction and that weapon gives a significant advantage to anyone who purchases it, then she may well be hindered in her ability to compete in the game.

The desire to be competitive thus exerts a kind of coercive pressure on the gamer to purchase these items; if the designers do not clearly advertise in advance the need to purchase items in order to succeed, they have engaged in deception. This can be avoided by advertising the fact, although there remains a serious risk of exploitation if designers keep adding more powerful items for purchase, forcing players to continue spending money. While this would financially benefit the designers, it results in treating players simply as a means to generate money rather than respecting their ends. To act ethically a designer would need to 1) advertise the need for real money purchases in order to compete and 2) avoid a cycle of adding new items which must be purchased to remain competitive. If those two conditions are met, then including these microtransactions is ethical.

#### d. Changes to the game experience

Instead of purchasing an item, a player may purchase changes to the game experience itself. This category is fairly varied, which makes it difficult to draw broad conclusions, but I will discuss a few common types. In freemium games players are often forced to watch ads at various points; many games allow players to remove those ads for a one-time fee. This is unproblematic, assuming that the costs are easy to determine and reasonable. Including ads is a reasonable strategy for monetizing a free game. Providing an option for ad removal allows the players to decide how they wish to pay for the game.

Not all changes to the game experience are harmless. One of the most familiar types of microtransaction in this category is paying to remove a time-gate. A common design tactic in freemium games is to make certain actions 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 dramatically as you play the game more.

Zagal, Björk, and Lewis (2013) call this “pay to skip”, although Kimppa et al. (2015) put it more evocatively 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 players who pay to train troops instantly will destroy those who do not. In this case, spending real money gives players a huge advantage.

This same issue occurs for selling items that will grant the player various advantages for a period of time, such as increased experience or safety from other players’ attacks. For instance, *Game of War* sold shields which protected your cities from other players while you were offline. In other words, it was designed to get you to pay money when you wanted to play the game and also pay money when you wanted 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.

In a competitive multiplayer game, real money transactions like this are very difficult to implement in an ethical fashion because they render what players do in the game largely 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 greatly matters what a player does in the game. Yet if winning the game is largely a matter of spending money, then attempting to achieve success primarily within the game is actually a losing strategy. In essence, allowing these purchases has not changed the rules of the game – it has *changed the game itself* from one involving building cities and training troops to one about quickly spending real money in large enough quantities.

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 and Keronen (2017) note that a key aspect in designing microtransactions is making the game fun enough that players keep playing but frustrating enough that they make real world purchases 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 acceptable. However, the typical sort of steadily increasing delay is not ethical.

In part, this is due to its deceptive nature; early on in the game, it is possible to play without paying – this is what lures people in. Over time, it becomes less possible to avoid microtransactions if you want to continue playing because the game introduces these time gates. This is akin to advertising an all-you-can eat buffet but only giving diners a single tiny plate and, after their first trip, installing a moat with a drawbridge around the buffet. Theoretically, diners might be satisfied with the single tiny plate. Or they might be able to jump over the moat with enough planning. Pragmatically, most people will probably pay an additional fee to cross the bridge on a second trip, since they have already begun their meal.

As for boost items, 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 both while playing and in order to stop playing is not treating the player as an end-in-herself; she is simply a source of revenue. Paying for the food I have consumed is reasonable. Paying an additional fee to stop being served food is not.

Other kinds of boosts are less straightforward. For instance, players in *World of Warcraft* can pay for a one-time boost that raises their character's level – instead of having to play a character in order for them to reach level 110 (which is needed to play the latest expansion), you can pay a fee and have it happen automatically. On the surface, this may seem unfair, however, it was likely implemented in part to allow players to experience the new content immediately; it provides a 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.

Games offer a variety of other boosts as microtransactions such as purchasing a bonus to gaining experience for a certain period of time. In general, the ethics of this will come down to how

central these boosts are to the game. If they 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.

## H. 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 fairness to other players. For multiplayer games, the safest form of real money transactions are 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 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.

Items that are only available via real money transaction may be ethical to include in 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, they are harder to justify in non-freemium games, since then designers seem simply to be treating players as means of generating money. If they gate gameplay, they are a deceptive way of attempting to get a player to purchase an expansion. If they simply give players a competitive advantage, they may be ethically permissible, but the need for purchases must be disclosed in advance; designers also cannot continually add new microtransactions which are necessary to remain competitive. Similar requirements exist for changes to the game experience, such as bypassing 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.

## References

- American with Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 328 (1991).  
 Belgian Gaming Commission. (2018). *Research Report on Loot Boxes*. Retrieved from [https://www.gamingcommission.be/opencms/export/sites/default/jhksweb\\_nl/documents/onderzoeksrapport-loot-boxen-Engels-publicatie.pdf](https://www.gamingcommission.be/opencms/export/sites/default/jhksweb_nl/documents/onderzoeksrapport-loot-boxen-Engels-publicatie.pdf)  
 BioWare. (2014) *Dragon Age: Inquisition*. Electronic Arts.



- Black, R., & Ramsay, H. (2003). The ethics of gambling: Guidelines for players and commercial providers. *International Gambling Studies*, 3(2), 199-215.
- Blizzard Entertainment. (2004) *World of Warcraft*. Blizzard Entertainment.
- Blizzard Entertainment. (2012) *Diablo III*. Blizzard Entertainment.
- Davidovici-Nora, M. (2013). Innovation in business models in the video game industry: Free-To-Play or the gaming experience as a service. *The Computer Games Journal*, 2(3), 22-51. doi:10.1007/bf03392349
- EA DICE. (2017) *Star Wars: Battlefront II*. Electronic Arts.
- Evers, E. R. K., van de Ven, N., & Weeda, D. (2015). The Hidden Cost of Microtransactions: Buying In-Game Advantages in Online Games Decreases a Player's Status. *International Journal of Internet Science*, 10(1), 20-36.
- Grundy, D. (2008). The Presence of Stigma Among Users of the MMORPG RMT: A Hypothetical Case Approach. *Games and Culture*, 3(2), 225-247.
- Guo, H., Hao, L., Mukhopadhyay, T., & Sun, D. (2015). *Selling Virtual Currency in Digital Games: Implications on Gameplay and Social Welfare*. Paper presented at the Theory in Economics of Information Systems (TEIS) 2015, Banff, Canada.
- Hamari, J., Alha, K., Järvelä, S., Kivikangas, J. M., Koivisto, J., & Paavilainen, J. (2017). Why do players buy in-game content? An empirical study on concrete purchase motivations. *Computers in Human Behavior*, 68, 538-546. doi:10.1016/j.chb.2016.11.045
- Hamari, J., & Keronen, L. (2017). Why do people buy virtual goods: A meta-analysis. *Computers in Human Behavior*, 71, 59-69. doi:10.1016/j.chb.2017.01.042
- Hight, J. (2013). Diablo III Auction House Update. Retrieved from <https://us.diablo3.com/en/blog/10974978/diablo%c2%ae-iii-auction-house-update-9-17-2013> Accessed 10 May 2018.
- Hill, M., & Croghan, J. (2015). 5 Reasons I Lost \$9,000 On An iPhone Game. *Cracked*. Retrieved from <http://www.cracked.com/personal-experiences-1762-5-reasons-i-lost-249000-iphone-game.html>
- Kant, I. (1996/1785). Groundwork of The metaphysics of morals (M. J. Gregor, Trans.). In M. J. Gregor (Ed.), *Practical Philosophy*. Cambridge: Cambridge University Press.
- Kimppa, K. K., Heimo, O. I., & Harviainen, J. T. (2015). First Dose is Always Freemium. *SIGCAS Computers & Society*, 45(3), 132-137.
- King, C. (2017). Forcing Players to Walk the Plank: Why End User License Agreements Improperly Control Players' Rights Regarding Microtransactions in Video Games. *William & Mary Law Review*, 58(4), 1365-1401.
- Machine Zone. (2013) *Game of War: Fire Age*. Machine Zone.
- McGowan, R. (1997). The Ethics of Gambling Research: An Agenda for Mature Analysis. *Journal of Gambling Studies*, 13(4), 279-289.
- Monolith Productions. (2017) *Middle-earth: Shadow of War*. Warner Bros. Interactive Entertainment.
- Netherlands Gambling Authority. (2018). *Study into loot boxes: A treasure or a burden?* Retrieved from <https://kansspelautoriteit.nl/english/loot-boxes/>
- Oh, G., & Ryu, T. (2007). *Game Design on Item-selling Based Payment Model in Korean Online Games*. Paper presented at the DiGRA 2007 Conference.
- Riot Games. (2009) *League of Legends*. Riot Games.

- Schreier, J. (2017). *Middle-earth: Shadow of War* Lets You Pay Real Money For Better Gear. *Kotaku*. Retrieved from <https://kotaku.com/middle-earth-shadow-of-war-lets-you-pay-real-money-for-1797593727>
- Sicart, M. (2009). *The Ethics of Computer Games*. Cambridge, USA: MIT Press.
- Strikwerda, L. (2012). Theft of virtual items in online multiplayer computer games: an ontological and moral analysis. *Ethics and Information Technology*, *14*, 89-97. doi:10.1007/s10676-011-9285-3
- United Kingdom. (2019). *Immersive and addictive technologies*. (15th Report). Retrieved from <https://www.parliament.uk/business/committees/committees-a-z/commons-select/digital-culture-media-and-sport-committee/news/immersive-technology-report-17-19/>.
- Zagal, J. P., Björk, S., & Lewis, C. (2013). *Dark patterns in the design of games*. Paper presented at the Foundations of Digital Games Conference (FDG 2013), Chania, Greece.
- Zendle, D., & Cairns, P. (2018). Video game loot boxes are linked to problem gambling: Results of a large-scale survey. *PLoS One*, *13*(11), e0206767. doi:10.1371/journal.pone.0206767