Article

Australia's Regulations on Loot Boxes and Recommendations

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Abstract: This paper examines Australia's recent regulatory framework for loot boxes in video games, which came into effect on 22 September 2024. The new rules classify games containing loot boxes or other chance-based in-game purchases as Category M, restricting access to children under 15. The study explores the logic behind loot boxes, their psychological and financial impact on players, and compares Australia's approach to regulations in other jurisdictions such as Belgium, the UK, and China. The analysis highlights the addictive nature of loot boxes, their resemblance to gambling, and the potential risks they pose, particularly to minors. The paper concludes with recommendations for improving Australia's regulatory framework, including stricter categorization, real-name verification systems, and enhanced transparency in loot box mechanics.

Keywords: loot boxes; gambling; video game regulation; Australia; in-game purchases

1. Introduction

The Australian Government's new rules on loot boxes in video games came into effect on Sunday 22 September 2024, meaning that from that date, all video games containing loot boxes or other in-game purchases with an element of chance will be classified as Category M (not recommended for children under the age of 15). The provision has been widely discussed since the draft was introduced in 2022 and has finally come into force after two years. This article will stand at the present point in time and discuss the logic of loot boxes and their impact on players, comparing it to other jurisdictions and addressing Australia's categorisation system regarding loot boxes.

2. Definition

According to the latest version of the Australian Commonwealth Government's *"Guidelines for the Classification of Computer Games 2023"* the definition of a paid loot box is "A virtual container, however described: that can be purchased or unlocked using real world currency or using in-game virtual currency, items or credits that can be purchased using real world currency; and that rewards players with an in-game digital item or items, where the exact reward the player is to receive is not disclosed to the player prior to purchase." In the definition section, the guideline avoids being bothered by wordplay. It is also noted that 'Paid Loot Boxes may be known by other names in the computer game industry including but not limited to prize crates and card packs.'

Such a definition seems broad and inclusive. However, it only mentions paid loot boxes, and the freely available loot boxes are not considered. In addition to this, there is no detailed distinction between those loot boxes that can be obtained by paying and those that can only be obtained by paying. There is also no mention of whether such loot boxes or items in them can be traded. Different definitions tend to serve different purposes and to make the definitions more accurate, it is inevitable that one must begin by examining the logic of the loot box.

3. Logic of the Loot Box

To make the definition of the loot box clearer and more realistic, we need to review the logic of the loot box, why it has become popular in various games and is popular with players, and why laws and regulations in various countries restrict it. One of the two popular ideas is 'pay to win', which means that loot boxes allow players to buy game items to get a better gaming experience in the game. The second is that loot boxes are addictive in a way that is like gambling.

The term 'pay to win' refers to a game monetisation mode in which players can enhance their competitiveness in online games by purchasing items or characters in the in-game store, thereby gaining a better gaming experience. This often creates an imbalance between paying and non-paying players, as those who invest money may progress faster, win more matches or dominate the gameplay. It is considered controversial because it can undermine the fairness and skill-based nature of the game. Because of this feature, pay to win often appears in non-competitive online games, especially those that emphasise social attributes or have a collection or growth element. Players of these games often place more importance on their status in their social circles or personal satisfaction than on confrontation and competition, and it seems like a shortcut to quickly improve their gaming power by spending money rather than honing their skills.

In terms of loot boxes, there is no doubt that buying them is also a form of pay to win. However, compared to direct purchases, buying through loot boxes adds a layer of rules of chance to the underlying logic of spending money to get stronger. The game items obtained by purchasing loot boxes are relatively uncertain within a certain range. On the one hand, players who are relatively unwilling to invest too much money in the game also have the opportunity to obtain similar game items as those called 'whales'; on the other hand, if the results of investing money in loot boxes are not satisfactory, players may be further invested (more than direct purchase) more money. Which effect this has depends on the game company's settings for probability and return rate. This is one of the reasons why some countries require game companies to indicate the probability in the loot box system. These regulations will be discussed in the regulations section below.

It is worth noting that the characteristics of the loot box in the entire pay to win system are often small but frequent payments. Players try to obtain the low probability jackpot through multiple small purchases. According to research by Dr Lelonek-Kuleta Bernadeta, Dr Bartczuk Rafał Piotr, Dr Wiechetek Michał, this type of player who makes frequent, low payments is more likely to exhibit symptoms of problems than other types of players, including but not limited to loss of control, impulsivity, lying, and escapism. 'it perpetuates in the gamer the conviction of the problematic character of playing, but the frequency of payments leads to the accumulation of negative consequences, including financial ones.' [1]. This is one of the reasons why loot boxes are so controversial. They are undoubtedly one of the most profitable models in the pay to win system, and their adverse effects on players are particularly obvious.

However, the appeal and controversy of pay to win seems to only represent those loot boxes that require the purchase of real currency. It does not fully explain the popularity and controversy of games that obtain loot boxes through in-game virtual currency or simply through gameplay. A theory of games of chance like gambling makes up for this nicely.

The loot box system is often compared to real-life gambling behaviour, because the logic of loot boxes, which offer a relatively uncertain reward through consumption, is similar to gambling.

Research shows that the thrill of gambling does not come entirely from monetary gains, but from increased levels of physiological arousal. And the multiple low-value payments made by players when purchasing loot boxes can also lead to increased levels of physiological arousal [2]. This pursuit of stimulation explains why there are times when loot boxes can still attract players to make repeated purchases, even if the loot boxes do

not come from real currency or the rewards in the loot boxes cannot be cashed in. For those obsessed with the loot boxes that can be obtained just by playing, this theory has become the main reason.

However, even though this gambling-like excitement is popular with gamers, and even though it seems that you can get a similar experience for less than you would in real-world gambling, not everyone is happy about it.

Many studies have shown a link between loot boxes and problem gambling. Aaron Drummond and James D. Sauer conducted a statistical analysis of 22 video games using Griffith's criteria for gambling, which consists of five indicators. They found that nearly half of these games met all five criteria, while more games met most of the criteria. They concluded that loot boxes bear a strong resemblance to gambling and could potentially serve as a breeding ground for gambling-related issues. In another study conducted by Aaron et al. with a wide range of participants from Australia, New Zealand, and the United States, the results showed that people with problem gambling spent an average of USD 13 more per month on loot boxes than those without such problems [3]. The findings of Marc van Meduna et al. are even more striking, with 46 per cent of loot box users and 65 per cent of daily loot box users being able to be categorised as problem gamblers [4]. Overall, even if there is still a line between loot boxes and gambling, and even if some loot boxes are free to obtain or cannot be cashed in, they still run the risk of leading players to become interested in or even dependent on gambling. This controversial relationship is reminiscent of the link between cigarettes and cocaine.

4. Loot Boxes and Gambling

Just because so much research has linked loot boxes to display gambling, it's time to discuss the controversial idea, are loot boxes a form of virtual gambling?

The prevailing view is that loot boxes are still not gambling, even though they share many similar characteristics. This is evidenced by the fact that the Australian government has adopted different levels of classification for games that contain elements of both. Games containing paid loot boxes are categorised as M rated, meaning they are not recommended for children under the age of 15, while video games containing simulated gambling are categorised as R18+, which is restricted to adults aged 18 and over. The former is recommended, while the latter is mandatory.

Among the many reasons why loot boxes are different from gambling, one is particularly important: 'The purchaser of a loot box does not lose anything by purchasing it.' Indeed, purchasing a loot box always pays off, even if it is only a trivial, minimal reward. Here, we will call this the 'minimum reward'. The existence of a minimum reward makes each purchase of a loot box closer to a trading act than to gambling. However, there are still some questions here. How big is the difference between the minimum reward and the reward the player expects to get? How big is the difference between the minimum reward and the value of the item the player would have bought in the game with the price they spent (whether it is real money or virtual currency)? If the price of each draw is AUD 10 and there is a possibility of obtaining in-game items worth between AUD 5 and 20, how far away from gambling is this kind of loot box? If the price of each draw is AUD 10 and there is a possibility of obtaining in-game items worth between 0.1 and 100 AUD, is this kind of loot box closer to gambling than the previous one? Considering the nature of loot boxes, which are purchased in small quantities many times, this gap may become even larger after many purchases. In this case, what players will get in the loot box system is entirely determined by the game company, even if it will be subject to a certain degree of market regulation. I believe this is also why China has reformed their regulation, which requires game merchants to indicate in the loot box system the probability of each item being drawn from the prize pool. This allows players to have a clearer and more accurate expectation.

Another reason to distinguish loot box systems from gambling is that the items obtained from loot boxes are not always exchangeable for real-world currency. This point is worth discussing. Very few loot boxes yield in-game items that can be directly converted into real money and withdrawn. However, in modern video games, especially online games, player-to-player trading has become commonplace. Some games provide built-in trading systems where players can exchange in-game items, including virtual currencies and virtual goods, meaning they can trade items within the game and settle payments outside the game. Some games go even further, such as the globally popular *PUBG: BAT-TLEGROUNDS*, *DOTA 2*, and *Counter-Strike 2*. These games do not offer in-game trading systems but allow market transactions through their connected Steam platform. Items obtained from loot boxes in these games do not have "official prices"; instead, their value is determined by market dynamics based on rarity and visual appeal. However, Steam still charges a 'processing fee'. In other games, even without in-game trading or third-party markets, players may still engage in private account sales. This is particularly common in collectible card-based mobile games, where players often create multiple new accounts to repeatedly open beginner loot boxes offered as gifts by game developers. They continue this process until they acquire desired items on a particular account, which they then use to proceed with the game. A well-equipped starter account can sell for a considerable price depending on its contents. But in such cases, to what extent can the responsibility be attributed to the game operators? These beginner loot boxes do not require players to spend any virtual or real currency to obtain them, and the developers do not endorse account trading of any kind. Moreover, such transactions take place entirely outside the platforms provided by the game developers.

Another key reason why I believe loot box systems differ from gambling lies in the differing intentions of game companies and casinos. For game companies, the primary goal of using loot boxes is to encourage players to make small, frequent purchases, keeping them engaged and spending within the game. The design of loot boxes makes players prone to addiction and less aware of their spending habits. In games where loot boxes cannot be purchased with real-world currency, the main purpose is to increase user reliance and attract more players, enabling the companies to profit through other means, such as in-game purchases, intellectual property licensing fees, and advertising revenue. This differs from gambling, where the primary objective is to extract money from gamblers or profit through commissions. If given the choice, game companies would undoubtedly prefer players to remain consistently engaged in the game rather than deplete their disposable funds all at once.

Having understood the internal logic of loot boxes and how they differ from gambling, it is useful to talk in more detail about the specific categorisation of loot boxes, which will facilitate a more detailed discussion of how Australia should define what its own laws regulate.

5. Classification of Loot Boxes

The simplest and most straightforward way to classify loot boxes is based on their contents. Some loot boxes contain items that directly impact the player's gaming experience, such as power-enhancing tools or characters. A representative example of this type is the card packs in *Genshin Impact*, where players repeatedly draw to obtain more powerful characters and weapons. The defining feature of this type of loot box is that players who choose not to purchase them often face a significantly worse gaming experience, potentially even getting stuck at certain stages. In *Genshin Impact* and similar games, there are characters referred to as "essential cards" (or "must-have characters"), which, if players fail to obtain from loot boxes, could result in setbacks for an entire version or even multiple major updates. Other loot boxes, however, do not affect a player's actual capabilities and merely provide cosmetic upgrades, such as visually appealing skins. Players who do not purchase these loot boxes can still experience the same gameplay as others, although

their characters may not look as attractive. These types of loot boxes are more common in competitive games like *Tom Clancy's Rainbow Six Siege* and *Counter-Strike 2* and sometimes involve skin betting. If a loot box highly affects a player's gaming experience, to the point where it must be purchased, does it deserve stronger regulation?

Loot boxes can also be categorized based on their standard acquisition methods: those that must be purchased with real money (including virtual tokens that can only be obtained with real money), those that can be purchased with either real money or virtual currency earned through gameplay, and those that can only be obtained through in-game virtual currency or purely through gameplay. The first category is characterized by requiring real money, with *Mahjong Soul* as a representative example. While players may receive a limited number of free draw opportunities during events, the primary method of acquisition is through purchases made with real money, and the tokens used for purchases have no reliable free acquisition method. The second category, which is the most common, allows players to obtain loot boxes without spending money, albeit at a slower pace than paying players. An example is *Arknights*, where players can earn a certain amount of in-game currency through gameplay to purchase loot boxes or recharge to buy them more efficiently. The third and least common category includes loot boxes that cannot be obtained through monetary transactions, such as Alpha Packs in *Tom Clancy's Rainbow Six Siege*, which are only available through random post-match drops or via Renown Points, an in-game currency earned exclusively through gameplay. A notable special case is the loot boxes in *Counter-Strike 2*, which are randomly dropped at the end of matches, fitting the third category in terms of acquisition. However, unlocking these boxes requires keys that must be purchased with real money, effectively placing them in the first category, as locked loot boxes lack the essential functionality of a loot box. Intuitively, the first two types of loot boxes, particularly the first, appear to require stricter regulation. However, as previously discussed, loot boxes can evoke gambling-like emotions and potentially become a breeding ground for problem gambling. Therefore, it may not be appropriate to completely ignore loot boxes that do not involve real-world assets.

Does the tradability of loot boxes affect how they are regulated by law? Most loot box contents are non-tradable, but some games allow the trading of items obtained from loot boxes or even the loot boxes themselves. For example, in *Tom Clancy's Rainbow Six Siege*, players can trade certain in-game items on the market, many of which originate from loot boxes that can only be acquired using in-game currency or real money. Similarly, in *Counter-Strike 2*, players can choose to sell the contents of opened loot boxes or trade unopened loot boxes directly with others. Some items from loot boxes have even reached prices of several million dollars on secondary markets. Loot boxes with tradable contents or those that are tradable themselves are generally more appealing than non-tradable ones and carry a higher risk of promoting gambling-like behaviour.

Some loot boxes feature a 'pity system', where players are guaranteed to receive the top-tier reward after opening a certain number of loot boxes. A relevant example is *Arknights*, where players can exchange for a 1% probability reward after 300 draws. This mechanism heightens players' focus on sunk costs, sometimes leading them to go to great lengths to reach the required number of draws for the guaranteed reward. However, this characteristic also distinctly differentiates loot boxes from gambling. Some players speculate that game developers use algorithms to monitor players' draw behaviours, ensuring they neither obtain desired items too easily nor lose motivation due to a lack of positive feedback. Although there is currently no evidence proving any game employs such practices, it is technically feasible to implement such features through code. There is still a gap in regulatory law or code review regarding this, but it will be necessary if one wants to mitigate the negative impact of loot boxes on a player's economic situation.

6. Loot box in Australia

Having understood the logic and categorisation of loot boxes, let's go back and look at the Australian regulations for loot boxes.

In the *Classification (Publications, Films and Computer Games) Amendment (Loot Boxes) Bill 2022*, it is clearly stated in the outline section that the purpose of the bill is to prevent the impact of loot boxes on young people by classifying games as traditional gambling that produces the same emotional experience. According to the Australian Classification Committee, 'These changes are in response to growing community concern for children and research findings that links gambling-like content in video games to problem gambling in real-life, as well as psychological and emotional harm'.

In the revised classification guidelines, games featuring 'in-game purchases linked to elements of chance' (including paid loot boxes) are categorised as M-rated, meaning they are not recommended for individuals under 15 years of age but remain legally accessible without restrictions. Games containing simulated gambling elements, however, are classified as R 18+, and restricted to adults only.

7. Loot Box in Other Countries

Before discussing Australia's shortcomings and positive aspects of loot box regulation, let's make a side-by-side comparison of loot box regulation in other countries around the world, and I'll use Belgium, the UK and China as examples.

Belgian Justice Minister Koen Geens announced in 2018 that according to an investigation by the Belgian Gaming Commission, paid loot boxes violate the country's gambling laws and can be prosecuted under criminal law [5]. Operators could potentially face up to five years in prison and fines of up to €800,000 if they refuse to remove the loot boxes. These penalties can also be doubled if minors are involved. Such strict rules are in stark contrast to Australia, where Belgium's rules on trophy cases are undoubtedly far stricter than Australia's, given the statement's 2019 release date. However, such strict regulations have not been effectively enforced. According to a 2023 study by Leon Y. Xiao: 'Paid loot boxes remained widely available amongst the 100 highest-grossing iPhone games in Belgium: 82.0% continued to generate revenue through a randomised monetisation method, as did 80.2% of games rated suitable for young people aged 12+.' [6]. According to Xiao's analysis, a complete ban on loot boxes is unrealistic and undesirable. Not only would this mislead players into thinking they are protected, it would also result in the bad driving out the good, leaving the market with companies that are unwilling to comply [7].

According to the 'Loot boxes in video games: update on improvements to industry-led protections' published by the UK Department for Culture, Media and Sport in July 2023, the UK government has concluded that 'This found an association between loot box purchases and problem gambling, but evidence has not established whether a causal relationship exists.' after extensive evidence gathering on loot boxes, and has finally responded as follows:

> 'Purchases of loot boxes should be unavailable to all children and young people unless and until they are enabled by a parent or guardian. All players should have access to, and be aware of, spending controls and transparent information to support safe and responsible gameplay. Better evidence and research, enabled by improved access to data, should be developed to inform future policy making on loot boxes and video games more broadly'

In contrast to the mandatory ban in Belgium, this industry-led protection in the UK is still in the realm of self-regulation and has not yet been formally enforced. Their future effectiveness remains to be seen.

In China, the situation is even more varied. Compared to the self-regulation in the UK and the complete ban in Belgium, the Chinese regulations are strict and detailed, but still leave room for loot boxes. First, gambling is illegal in China, and soliciting minors to participate in online gambling is an aggravating circumstance. Against this background,

the Chinese government has imposed very strict regulations on chance draws in online games. Article 2, paragraph 6 of the *Notice of the Ministry of Culture on Regulating the Operation of Online Games and Strengthening Supervision During and After the Event*, issued by the Ministry of Culture of the People's Republic of China on 6 December 2016, stipulates that 'Online game operators that provide virtual items and value-added services by random draw shall not require users to participate by directly investing legal tender or online game virtual currency. Online game operators shall promptly publish on the official website of the game or on the random selection page the names, functions, contents, quantities, and probability of drawing or synthesising of all virtual items and value-added services that may be drawn or synthesised. The information published on random selection shall be true and valid.' The Chinese government requires the disclosure of detailed probabilities while retaining the appeal of the loot box's uncertainty to players. Although it is not yet known how rigorous the review of the code level will be, at least a basis for the review has been established.

8. Reflection and Suggestions

Looking back at Australia's regulation of loot boxes in Guidelines for the Classification of Computer Games 2023, there are still a few things that need to be improved:

1) The Guidelines only require paid loot boxes to be categorised, and do not explicitly categorise non-paying loot boxes, and there is still a risk that players (especially underage players) will be tempted to gamble on loot boxes that can be obtained without paying for them. This lack of regulation does not fulfil the original intent of the guidelines to 'protect young people from gambling'.

2) The Guidelines classify games with elements of chance, such as paid loot boxes, as M-rated, but M-rated means only that they are not recommended for use by persons under 15 years of age and do not contain a mandatory force. In addition, as Australia does not have a real-name gaming account system similar to China's, it is still possible for minors to bypass these ratings. Overall, the effectiveness of the guidelines remains a concern.

3) The guideline only applies to games released after the change, while previous games with paid loot boxes are not affected, which may cause confusion in the market to some extent. This is especially true given that gaming products, as transnational cultural products, are already plagued by differing regulations from place to place.

4) Regulation of loot boxes may require a concerted push on multiple fronts rather than simply being put into a game classification system. Examples include regulation at the game code level, investigation of underage consumption, regulation of the secondary market and regulation of game account trading. As a part of the whole gaming ecosystem, a single regulatory measure appears to be ineffective.

9. Conclusion

Australia, as a country at the forefront of loot box regulation, deserves recognition for its protection of juveniles and its restriction of the gambling element in video games. By placing the regulation of loot boxes in the classification criteria rather than banning them outright, it is also possible to minimise the impact on the free economy and avoid repeating the mistake made by Belgium. However, it has to be admitted that the new classification guidelines are not enough to be an effective regulation on loot boxes, and more detailed and comprehensive regulations, such as the review of the code level, the restriction of free loot boxes, and even the discussion of real-name systems are still to be addressed.

References

1. B. Lelonek-Kuleta, R. P. Bartczuk, and M. Wiechetek, "Pay for play: Behavioral patterns of pay-to-win gaming," *Computers in Human Behavior*, vol. 115, p. 106592, 2021, doi: 10.1016/j.chb.2020.106592.
2. A. Brady and G. Prentice, "Are loot boxes addictive? Analyzing participants' physiological arousal while opening a loot box," *Games and Culture*, vol. 16, no. 4, pp. 419-437, 2021, doi: 10.1177/1555412019895359
3. A. Drummond, J. D. Sauer, and L. C. Hall, "The relationship between problem gambling, excessive gaming, and spending on loot boxes," *PLOS ONE*, vol. 15, no. 3, p. e0230378, 2020, doi: 10.1371/journal.pone.0230378
4. M. von Meduna, et al., "Loot boxes are gambling-like elements in video games with harmful potential," *Technology in Society*, vol. 63, p. 101395, 2020, doi: 10.1016/j.techsoc.2020.101395
5. L. Y. Xiao and S. Vazire, "Breaking ban: Belgium's ineffective gambling law regulation of video game loot boxes," *Collabra: Psychology*, vol. 9, no. 1, 2023, doi: 10.1525/collabra.57641.
6. L. Y. Xiao, "Loot box state of play 2023: Law, regulation, policy, and enforcement around the world," *Gaming Law Rev.*, vol. 28, no. 10, pp. 450–483, 2024, doi: 10.1089/glr2.2024.0006.
7. M. Rockloff, A. M. Russell, N. Greer, L. Lole, N. Hing, and M. Browne, "Young people who purchase loot boxes are more likely to have gambling problems: An online survey of adolescents and young adults living in NSW Australia," *J. Behav. Addict.*, vol. 10, no. 1, pp. 35–41, 2021, doi: 10.1556/2006.2021.00007