

# Senate Standing Committees on Environment and Communications

## Gaming Micro-Transactions for Chance-Based Items Inquiry

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## Introduction

We welcome the opportunity to provide feedback to the inquiry regarding gaming microtransactions for chance-based items. We are well-placed to respond to this enquiry as the lead author of the only large-scale study in existence regarding the effects of loot boxes. This study found an important link between the use of loot boxes and gambling-related harm.

## Executive Summary

- Our large-scale study (n=7,422) found important links between loot box spending and problem gambling. The more severe gamers' problem gambling was, the more likely they were to spend large amounts of money on loot boxes. This study is available as a pre-print at [1].
- These results strongly support claims that loot boxes are psychologically akin to gambling.
- These results also suggest that there is a serious risk for loot boxes to cause gambling-related harm. More specifically, they suggest that either:
  - Loot boxes act as a gateway to problem gambling amongst gamers.
  - Loot boxes provide games companies with an unregulated way of exploiting gambling disorders amongst their customers.
- Given the relationship between loot box use and problem gambling outlined above, we recommend that
  - Games containing loot boxes carry parental advisories
  - Games containing loot boxes carry descriptors that indicate the presence of in-game gambling content.
  - Serious consideration is given to restricting games that contain loot boxes to players of legal gambling age

## Loot box spending is linked to problem gambling

Loot boxes are items in video games that contain randomised contents and can be paid for with real money. The total amount of revenue generated by loot boxes this year is thought to be as high as \$30 billion [2].

In our recent study, we investigated links between loot box spending and problem gambling.

Problem gambling is a pattern of gambling behaviour that is so extreme that individuals develop serious problems in both their personal and professional lives [3]. We surveyed 7,422 gamers and measured both how much they spent on loot boxes and the severity of their problem gambling.

We found that the more severe an individual's problem gambling, the more they spent on loot boxes. The relationship we observed was neither trivial, nor unimportant. Indeed, the amount that gamers spent on loot boxes was a better predictor of their problem gambling than high-profile factors in the literature such as depression and drug abuse. Both a pre-print of this study and open access to the data that supports it is available at [3].

## Loot boxes are psychologically akin to gambling

Industry statements typically disassociate loot boxes from gambling. They instead highlight similarities between loot boxes and harmless products like trading cards or Kinder Surprise eggs. As the ESRC put it: "we do not consider loot boxes to be gambling ... loot boxes are more comparable to baseball cards, where there is an element of surprise and you always get something." [4].

By contrast, researchers argue that loot boxes share so many formal similarities with other forms of gambling that they meet the 'psychological criteria' to be considered gambling themselves. These researchers further suggest that buying loot boxes may therefore lead to problem gambling amongst gamers [5].

These results support the position of academics who claim that loot boxes are psychologically akin to gambling. Spending large amounts of money on loot boxes was associated with problematic levels of spending on other forms of gambling. This is what one would expect if loot boxes psychologically constituted a form of gambling. It is not what one would expect if loot boxes were, instead, psychologically comparable to baseball cards.

## Loot boxes and the potential for harm

The study outlined above provides the sole empirical evidence of a link between loot box use and gambling-related harm. However, it is important to clarify that the nature of this harm is partially unclear due to the correlational nature of the study.

It may be the case that loot boxes in video games act as a gateway to other forms of gambling, leading to increases in problem gambling amongst gamers who buy loot boxes. As noted in [5], loot boxes share important characteristics with other forms of gambling. They may therefore condition gamers to require the excitement associated with gambling , leading to problem gambling[6].

However, it is important to note that an alternative explanation for these results may also be true. Problem gambling is characterised by excessive, harmful, and often uncontrollable spending on gambling activities. The key similarities between loot boxes and gambling may lead to gamers who are already problem gamblers spending large amounts of money on loot boxes, just as they would spend similarly large amounts on other kinds of gambling. In this case, loot boxes would not be providing a breeding ground for the development of problem gambling so much as they would be allowing games companies to exploit addictive disorders amongst their customers for profit.

## Recommendations for regulation

We broadly follow [5] in many of their general recommendations for regulation.

- In the light of the evidence of a link between loot box spending and problem gambling, we recommend that games which contain loot boxes carry parental advisories for games that feature loot boxes.
- We recommend that games which contain loot boxes also carry a descriptor outlining that the game itself features gambling content.
- Given the strength and the importance of the relationship between loot box spending and problem gambling, we further recommend that serious consideration is given to restricting games with loot boxes to players of legal gambling age.

## References

- [1] D. Zendle and P. Cairns, "Video game loot boxes are linked to problem gambling: Results of a large-scale survey," *PsyArXiv*, Aug. 2018.
- [2] Juniper Research, "In-Game Gambling ~ The Next Cash Cow for Publishers," Apr-2018. [Online]. Available: <https://www.juniperresearch.com/document-library/white-papers/in-game-gambling-~the-next-cash-cow>. [Accessed: 15-Jul-2018].
- [3] N. Raylu and T. P. Oei, "Role of culture in gambling and problem gambling," *Clin. Psychol. Rev.*, vol. 23, no. 8, pp. 1087–1114, 2004.
- [4] ESRB, "ESRB Response to Senator Hassan," *Scribd*, Feb-2018. [Online]. Available: <https://www.scribd.com/document/372547777/ESRB-Response-to-Senator-Hassan>. [Accessed: 29-Jun-2018].
- [5] A. Drummond and J. D. Sauer, "Video game loot boxes are psychologically akin to gambling," *Nat. Hum. Behav.*, p. 1, Jun. 2018.
- [6] A. Blaszczynski and L. Nower, "A pathways model of problem and pathological gambling," *Addiction*, vol. 97, no. 5, pp. 487–499, 2002.