

Loot boxes in online games and their effect on consumers, in particular young consumers

The [original full study](#)¹ defines loot boxes and describes their behavioural effects on consumers, including problematic behaviour. It examines the regulatory framework at EU and national level within which loot boxes operate, provides an overview of public and industry practices, and derives recommendations.

Background

In-game purchases, such as paid-for loot boxes, are an important source of income for game developers, but loot boxes raise potential concerns from a consumer protection perspective. Due to their random reward mechanisms, loot boxes bear resemblance to games of chance. Concerns have been raised that they could serve as a **'gateway from gaming to gambling'**. This would pose a particular challenge for **children and adolescent protection** as many games containing loot boxes are also played by children.

Key findings

Loot boxes are features in video games which are usually accessed through gameplay, or which may be optionally paid for with real-world money. They contain randomised items, so players do not know what they will get before opening. Some researchers say loot boxes are 'virtual games of chance' or a systematic attempt to turn gamers into gamblers. Others suggest that they resemble 'mystery boxes' found in other consumer markets such as collectors' card packs (e.g. sports, Pokémon), or traditional whack-a-mole games at popular fairs.

Many different types of loot boxes exist. They vary in:

- **Access and cost:** Loot boxes can be accessed through gameplay, waiting time, ad-viewing, or they can be paid for. Their cost can vary substantially;
- **Transparency and probabilities of obtaining different items from a loot box:** Loot box items can be common or rare. The probabilities of obtaining different items can be known or unknown to the player before opening a loot box, although major industry players have committed to increasing transparency in this regard;
- **Content:** They contain cosmetics (e.g. skins) or items affecting gameplay (e.g. tools, maps) of varying value; and
- **Value conversion:** Contents from loot boxes can sometimes be converted into real money. While this appears to be an unwanted niche phenomenon, it nevertheless exists and links loot boxes to gambling.



Limited research on the behavioural effects of loot boxes exists and **more research is needed to provide robust and conclusive findings**. Previous analyses revealed that problem gambling and paying for loot boxes are related. However, there is no consensus on a causal link between loot boxes and harmful behaviour.

Check out the [original full study](#) by scanning this QR code!



While various interviewed experts and some authorities agree that **not all loot boxes carry risks**, loot boxes can be surrounded by problematic game designs which could have **adverse psychological and financial consequences**. Certain common game designs resemble **addictive designs** of conditioning known, for example from slot machines. **Opaque offer and pricing techniques** could cause **unwanted or uncontrolled spending**. However, such designs are **not limited to loot boxes but found in games more broadly**.

Even though many games with loot boxes are **not specifically targeted at children**, children still play and pay. It appears that **children could potentially be more vulnerable to problematic game designs** compared to adults. This is because children have a reduced ability to exert self-control and more difficulties in understanding valuation and probabilities in games.

Loot boxes are subject to general national legislation on contracts and consumer protection. In addition, several national authorities have **investigated under what conditions loot boxes may qualify as gambling**. With the exception of Belgium, the Netherlands and Slovakia, no EU Member State has come to the conclusion that loot boxes fulfil their national gambling criteria. As a result, only these three countries have so far taken or are considering taking regulatory steps to ban loot boxes. Other countries have taken less invasive action such as awareness raising and developing guidelines for parents and players.

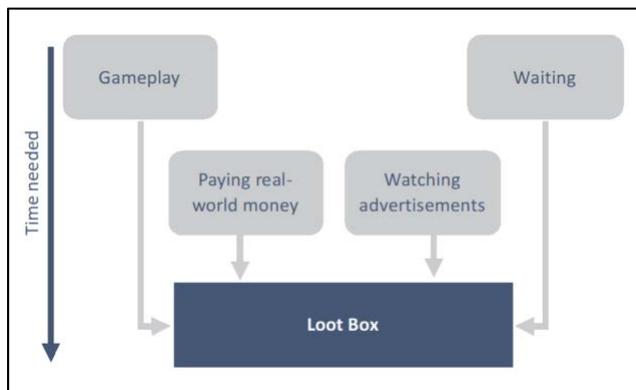
Moreover, the video game industry has taken steps to address concerns about loot boxes such as **increased transparency** through **labelling** games containing in-game purchases, or **displaying the probabilities of obtaining different items from a loot box**. Awareness raising campaigns and **player and parental control tools** have been rolled out or improved to help manage undesirable behaviours such as excessive screen time and (over) spending. Many game publishers are also **moving away from loot boxes** and towards a wider use of other in-game purchasing systems which do not rely on random rewards.

Recommendations for further action and conclusions

While banning loot boxes under national gambling regulation effectively removes loot boxes that are considered gambling from video games, it may also lead to a **fragmented Single Market for video games**. It is therefore recommended to tackle problematic game designs (which include, but are not limited to, certain types of loot boxes) from a **wider consumer protection perspective**.

The existing industry initiatives to provide players (or parents in the case of minors) with information and being transparent about spending mechanisms or unwanted content are a good starting point, but **for most initiatives there is a lack of evidence and even doubts regarding their actual impact** (e.g. it has been shown that the majority of parents is not aware of existing parental control settings in video games). Thus, while consumer information, transparency and player control measures are certainly welcome initiatives, it is recommended that their effectiveness is **systematically verified**, for example through evaluations or consumer testing.

Based on such an assessment, the European Union, which has the competence to **harmonise rules on consumer protection** in the Single Market, could take steps to complement and strengthen the protection of (young) players. Inspiration for potential actions can be taken from **(young) consumer protection measures previously adopted by the EU** in other sectors (such as the Audiovisual Media Services Directive, the Consumer Rights Directive or the Tobacco Products Directive).



¹ [https://www.europarl.europa.eu/ReqData/etudes/STUD/2020/652727/IPOL_STU\(2020\)652727_EN.pdf](https://www.europarl.europa.eu/ReqData/etudes/STUD/2020/652727/IPOL_STU(2020)652727_EN.pdf)

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