

# FTC Video Game Loot Box Workshop

STAFF PERSPECTIVE | AUGUST 2020

## Introduction

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On August 7, 2019, the Federal Trade Commission (“FTC”) hosted a workshop in Washington, DC on video game loot boxes and related microtransactions.<sup>1</sup> In recent years, video game loot boxes have been the subject of national and international scrutiny due to concerns that they promote compulsive or gambling-like behavior or use predatory tactics to encourage addictive consumer spending, particularly in children.

A number of countries have examined whether to regulate loot boxes, with some offering policy recommendations, implementing restrictions, or imposing bans.<sup>2</sup> Legislators in the United States likewise have raised concerns, including proposals at the state and federal levels to regulate loot boxes.<sup>3</sup> In addition, the video game industry has engaged in self-regulation, for example through the Entertainment Software Rating Board (“ESRB”) rating system, in-game purchase disclosures, parental control features, and consumer education initiatives.<sup>4</sup>

A mission of the FTC is to prevent deceptive or unfair acts or practices in or affecting commerce, which it achieves, for example, through civil law enforcement actions pursuant to Section 5 of the FTC Act, 15 U.S.C. § 45, industry reports and workshops, and consumer and business education. The purpose of this workshop was to provide a public forum to discuss consumer, industry, and academic viewpoints on loot boxes and related microtransactions.

In this staff perspective, we highlight several issues raised at the day-long workshop and in comments submitted to the public docket,<sup>5</sup> including the role of microtransactions and loot boxes in the video game marketplace, public concerns about these monetization systems, emerging academic research on loot boxes, and ongoing industry self-regulatory initiatives.

## Key Takeaways

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### What Are Video Game Microtransactions and Loot Boxes?

A video game microtransaction refers to an in-game purchase, typically for a small fee. Broadly speaking, a loot box is a video game microtransaction in which the consumer purchases a reward containing one or more virtual items of differing value or rarity assigned at random. The player may be aware of the types of items in the loot box prior to purchase but will not know the specific reward until opening the box. A player may purchase loot boxes, individually or in packages, with real money or in-game currency. Alternatively, a player may unlock loot boxes without additional payment by, for example, completing in-game tasks or logging into the game regularly.



Microtransactions and loot boxes appear across genres of video games, including sports games, role playing games, and action games, and come in many forms. For example, players may use them to acquire a new outfit or other character feature, an extra life to allow a player to continue gameplay, or a season pass giving the player access to upcoming game content at a discount.

Panelists and comments to the public docket described several categories of microtransaction and loot box options: (1) cosmetic items to change a character's appearance ("skins") or expressions ("emotes"); (2) card packs containing items or characters of differing value; (3) "pay-to-progress" transactions, like extra energy or time, as an incentive to continue game play; and (4) "pay-to-win" transactions, such as stronger characters and better weapons, that give players that pay an advantage over players that do not purchase them.<sup>6</sup> A single video game may incorporate one or more of these transaction models. A few panelists and commenters noted that some games may allow players to trade virtual items with other players or to sell virtual items for in-game currency or real money, while other games may place limitations on what items, if any, can be traded or sold.<sup>7</sup>

## How Have Microtransactions and Loot Boxes Evolved?

As several panelists described, the video game landscape has changed dramatically in recent decades.<sup>8</sup> Video games began as one-time, static purchases for use on computers or game consoles. The development of downloadable content and mobile apps changed the business model. Video games increasingly function as a service in which after acquiring a game, players can purchase new content through downloadable updates available in various forms, including expansion packs, subscription services, and season passes.<sup>9</sup> These services are now present in both single- and multi-player games, including games played across multiple platforms (e.g., console, personal computer, mobile).

Microtransactions have become a multi-billion-dollar market, accounting for a significant percentage of all revenue derived from video games.<sup>10</sup> As one panelist noted, many games today, particularly mobile apps, are free to download and rely on in-app purchases to pay for their development.<sup>11</sup> Even games that consumers pay for upfront may include microtransactions to cover the high costs of development and updates.<sup>12</sup>

As video games have evolved, so too have industry educational resources for consumers. For example, for many years, the ESRB has assigned age and content ratings to video games and mobile apps to help consumers, especially parents, determine a game's appropriateness.<sup>13</sup> The rating system has three parts: 1) age rating categories (**E**veryone, **E**veryone **10+**, **T**een, **M**ature 17+, or **A**dult **O**nly); 2) content descriptors (e.g., Violence), and 3) interactive elements (e.g., In-Game Purchases). In addition, the ESRB routinely obtains feedback from parents about the rating system.

## What Are Key Concerns About Loot Boxes?

The growth of paid loot boxes and microtransactions has generated strong reactions, and both the gaming industry and consumers have mixed views. Some panelists view paid loot boxes as optional expenditures that benefit players by offsetting game development costs and allowing people to play games for free or at reasonable prices.<sup>14</sup> Others cautioned that certain loot box

tactics have caused consumers to mistrust industry motivations, a sentiment echoed in written comments submitted to the public docket.<sup>15</sup> For example, some games pressure players to bypass grinding gameplay loops in favor of buying loot boxes to advance (the pay-to-win scenario), while other games promote loot box purchases that typically yield disappointing, low-value items.<sup>16</sup> While free games provide users access with no upfront investment, one panelist observed that free games appear to have some of the more problematic microtransactions and loot boxes.<sup>17</sup> Gamers have grown frustrated by these problems and do not feel that industry has listened to their concerns.<sup>18</sup>

Panelists and commenters raised several specific concerns with how loot boxes currently function and how they are disclosed.

- **Mechanics that May Confuse or Manipulate Consumers.** Several panelists and comments submitted to the public docket criticized loot box monetization techniques that they say mask the real costs to players, because the details of the offer are confusing or because the games may use visual or other tactics to keep players psychologically and financially invested in gameplay.<sup>19</sup> Some panelists and a number of public commenters suggested that the mechanics have gambling-like qualities or incorporate predatory tactics, but others disputed these characterizations.<sup>20</sup> One panelist also expressed concern that developers may use knowledge of player preferences and spending habits to manipulate consumers into spending money on loot boxes.<sup>21</sup> In a written comment, the Entertainment Software Association (“ESA”) stated that it is not aware of any of its members using such information to worsen players’ odds to prompt them to buy loot boxes.<sup>22</sup>
- **Feeling Pressure to Spend.** Panelists spoke about the social aspect of modern video games. Many games allow users to play with or against other players online. This interactive atmosphere may place more pressure on players to spend money.<sup>23</sup> In cooperative games, players may not want to let their team down if other team members have better gear and contribute more to the team’s success. In competitive games, players may feel it necessary to spend money on better items or characters in order to keep pace with their opponents. A few panelists and commenters also explained that the quest for rare items, especially when combined with the ease and instant gratification of digital transactions, may tempt some players to engage in persistent spending.<sup>24</sup>
- **Impact on Children.** Several panelists and comments to the public docket discussed concerns about children interacting with loot boxes and other in-game purchases, noting that kids are vulnerable to manipulation and social pressure, or may not fully understand the cost of the transaction.<sup>25</sup> Despite the ESRB rating system and disclosures, and parental controls, some panelists and commenters questioned whether the current protections were sufficient.<sup>26</sup> As some noted, it is challenging for parents to navigate the varied and evolving ways that children play video games, and parents need useful information and tools to help them communicate with their children.<sup>27</sup> Some panelists and commenters suggested adopting in-game purchase disclosures that describe more specifically the types of in-game microtransactions. One panelist and a few commenters suggested modifying the ESRB rating for games with loot boxes, for example by rating all such games as **Mature** or **Addult Only**, or by creating a new rating.<sup>28</sup> As noted below,

since the workshop, ESRB has announced a new disclosure for games that offer random items.

- **Disclosure of Loot Box Odds.** Panelists and some commenters expressed concern about the transparency of loot box odds, particularly if a game uses dynamic odds that may vary by player or time.<sup>29</sup> Apple and Google require all mobile apps that have loot boxes to disclose odds,<sup>30</sup> and at the workshop, the ESA announced that by the end of 2020 Microsoft, Nintendo, and Sony would require disclosure of loot box odds for new games and existing games that add new loot box features.<sup>31</sup> Implementation of these policies is ongoing,<sup>32</sup> and the ESA stated in a public comment that regardless of whether the probability of obtaining an item is static or dynamic, “the rate disclosed to players will accurately reflect the current rate at the time of purchase.”<sup>33</sup> Staff advises that disclosure of loot box odds must be accurate and nonmisleading to avoid a Section 5 violation.
- **In-Game Purchase Disclosures.** Frequently, developers utilize in-game currencies rather than real-world currencies to maintain a player’s sense of immersion in the game. But this may confuse some players, as it essentially requires a player to remember the real currency to in-game currency “exchange rate” and calculate it for every transaction. In addition, some panelists and public commenters noted that even when a real money cost is disclosed, it may not adequately explain how much a player can expect to pay after the initial transaction.<sup>34</sup> Several panelists and commenters opined that these practices make it easier for the consumer to lose sight of the true costs of gameplay.<sup>35</sup> Others countered that in-game currency has practical purposes (*e.g.*, less frequent credit card transactions), preserves the integrity of the game narrative, and noted that parents and players can set spending limits on their phones or game consoles.<sup>36</sup> ESRB’s research indicates that the spending limit function is the number one video game control feature that parents choose to enable.<sup>37</sup> Staff encourages publishers to enhance purchase disclosures to provide consumers with meaningful information about the real money costs associated with loot box microtransactions.
- **Content Creator Disclosures.** Another feature of modern video games is the rise of “content creators,” avid video game players who livestream their gameplay to sometimes millions of followers. The panelists noted that these content creators should follow the FTC’s Endorsement Guides, which, among other things, require people to disclose any material connections between themselves and the products they are touting, such as compensation agreements.<sup>38</sup> One panelist offered an example of a publisher proposing better odds on loot boxes to a content creator for promotional purposes than odds available to the general public.<sup>39</sup> In a publicly filed comment, ESA stated that it is not aware of its members modifying loot box odds for social influencers.<sup>40</sup> Panelists also flagged challenges to effective disclosures during video game livestreams.<sup>41</sup> Livestreams can often run for hours at a time, with viewers coming and going, so one disclosure upfront is unlikely to reach an entire audience. In addition, content creators do not control the platforms they use, such as YouTube and Twitch, so they do not have the ability to program a visual disclosure to appear throughout their livestreams.<sup>42</sup> Content streamers and streaming platforms both have obligations to ensure that material

connection disclosures are clear and close in time to the triggering claim so as not to be deceptive under Section 5.<sup>43</sup>

## What Does Emerging Research Tell Us About Loot Boxes?

As a relatively new phenomenon, the existing body of research on video game loot boxes is limited but expanding into fields such as marketing, business operations, and behavioral science. The workshop provided a snapshot of some of these studies. For example,

- A media effects specialist presented his research on the correlation between loot box purchases and measures of problem gambling, demonstrating that individuals who purchase a large amount of loot boxes score higher on an index of problem gambling.<sup>44</sup> It is unclear whether the driver of this observed link is problem gambling or loot box mechanics, but in the researcher's opinion the correlation is concerning.
- A marketing professor presented data from a single-player mobile game to estimate whether people purchase loot boxes because they enjoy the chance to receive a reward or for the functional utility of advancing in the game.<sup>45</sup> Players had to progress through many levels of the game by winning battles using various characters. Loot boxes contained characters of different value that could help a player advance. For this type of game, the professor's research indicated that players primarily purchased loot boxes to advance in the game rather than purely for the pleasure of buying, although the loot box's functional value as an asset in game play may not have been the only reason for the purchase.
- Using a mathematical model, a business operations researcher presented a theoretical paper exploring how a seller's decisions about design and pricing of loot boxes affect consumers.<sup>46</sup> He found that unique loot boxes that always grant new items (*e.g.*, no duplicates of items the consumer already owns) benefit the seller, who can charge more for unique boxes, compared to loot boxes that permit duplicates, which may cost less to the consumer. He also suggested that offering everyone the same probability of obtaining a random item (*e.g.*, 1% odds of getting a rare legendary character) benefits sellers and consumers because this allocation strategy is simple to implement and relatively easy to understand. He cautioned that the integrity of the system depends on the ability of individuals to assess the truthfulness of the odds, which is why disclosing odds and monitoring the accuracy of the odds through regulation are important.
- A clinical child psychologist who helps parents and children address excessive and problematic digital media use and trains providers on how to assess and assist youth with these problems offered her perspectives.<sup>47</sup> Her research examining parent-child communication with respect to media and mobile devices revealed very limited interaction between parents and children. She found this barrier concerning, because communication about gaming is important in helping children make responsible decisions regarding media use.

## What Should Be Done to Address Concerns About Loot Boxes?

Panelists described industry self-regulatory initiatives and offered suggestions of additional measures to safeguard against potential negative impacts of loot boxes.

- **ESRB initiatives.** At the time of the workshop, the ESRB’s rating system did not require disclosure of whether in-game purchases specifically included loot boxes. The organization’s research indicated that the in-game purchase disclosure was important to parents, but a significant majority of parents did not know what a loot box was.<sup>48</sup> Rather, parents were concerned more generally about their children engaging in in-game spending. ESRB also launched a website (parentaltools.org) to assist parents in setting up parental controls on various gaming devices and, more recently, a blog with information specifically about loot boxes.<sup>49</sup> In response to requests from consumers and game enthusiasts, in April 2020, the ESRB announced the introduction of a new interactive element, specifying that a game contains In-Game Purchases (Includes Random Items).<sup>50</sup> The new disclosure will be assigned to any game where the player does not know which specific digital good or premium they will receive at the time of purchase, such as loot boxes and mystery rewards.
- **Other proposed self-regulatory measures.** While welcoming ESA’s announcement of industry commitment to odds disclosure at the workshop, panelists also urged the industry to ensure those disclosures are clear and meaningful to help consumers make better-informed decisions.<sup>51</sup> Other suggestions included creating a website with more detailed explanations of the available types of microtransactions; displaying a player’s cumulative in-game spending in “real world” money; rewarding players for pro-social behavior like reading about loot box odds; and making items offered in loot boxes also available via direct purchase.<sup>52</sup>
- **Mixed views on increased government regulation.** Commenters and panelists expressed diverse viewpoints on whether video game loot boxes warrant government regulation. Some favored it, asserting that industry has not policed this area well and government regulation will mitigate the risk that industry economic motivations could result in consumer exploitation.<sup>53</sup> One panelist suggested third-party, independent verification of loot box odds.<sup>54</sup> Others emphasized that self-regulation is adaptable and effective, and voiced concern that poorly crafted regulation could harm the industry and inadequately protect consumers.<sup>55</sup> A number of panelists and commenters advocated for greater industry transparency and communication surrounding loot boxes mechanics.<sup>56</sup>
- **Continue to develop research.** As described above, research on video game loot boxes and microtransactions is evolving. In this regard, some panelists encouraged the industry to share relevant video game data with researchers.<sup>57</sup> Another stated the need to examine the business and economic motivations of sellers when considering regulatory policy.<sup>58</sup> A third noted that there has been limited research on the gaming experiences of children and stated that it is important that future research look at the content and context of game play and other types of media use when considering the impact of video games on children.<sup>59</sup>



- **Consumer advocacy and action.** Several panelists emphasized the importance of consumer education about loot box mechanics.<sup>60</sup> Such efforts will aid parents in communicating with their children about video games and will help gamers of all ages evaluate game features and whether to invest time and money into a specific game. Panelists discussed parental controls to cap game time and spending limits, as well as removing stored payment information from online publishers.<sup>61</sup> Finally, recent history shows that, for business reasons, game publishers notice when content creators and gamers voice criticism of industry practices they consider to be harmful.<sup>62</sup> In certain instances, companies have discontinued loot box features based on negative consumer response.<sup>63</sup> Many gamers, including content creators, have embraced the constructive role they can play in bringing attention to games that use loot boxes in a particularly aggressive or predatory manner.

## Conclusion

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As the workshop revealed, the video game monetization system is a complex space that incorporates a wide range of mechanics. Emerging research is starting to provide important insights regarding the impact of these mechanics on businesses and consumers, and staff supports additional academic research in this area. In the meantime, the public raises significant questions about loot boxes, including the adequacy of descriptors and disclosures prior to purchase, whether the mechanics promote compulsive behavior, and how to communicate information effectively to parents and children. Since the workshop, the video game industry has taken steps to enhance self-regulation, including through odds and point-of-purchase disclosures. In recent months, there also has been a rise in video gameplay due to the COVID19 global pandemic that has kept a significant percentage of the population indoors,<sup>64</sup> potentially amplifying the loot box concerns raised at the workshop. Staff encourages industry to continue efforts to provide clear and meaningful information to consumers about in-game loot box and related microtransactions. The FTC will continue to monitor developments surrounding loot boxes and take appropriate steps to prevent unfair or deceptive practices.

## Endnotes

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<sup>1</sup> FTC, *Inside the Game: Unlocking the Consumer Issues Surrounding Loot Boxes*, <https://www.ftc.gov/news-events/events-calendar/inside-game-unlocking-consumer-issues-surrounding-loot-boxes>.

<sup>2</sup> See, e.g., United Kingdom House of Commons, Digital, Culture, Media and Sport Committee, *Immersive and addictive technologies, Fifteenth Report of Session 2017–19* (Sept. 9, 2019), <https://publications.parliament.uk/pa/cm201719/cmselect/cmcmds/1846/1846.pdf> (recommending that certain types of loot boxes be regulated as gambling and not be sold to children); *Government response to the Digital, Culture, Media & Sport Select Committee Report on Immersive and Addictive Technologies* (June 8, 2020), <https://www.gov.uk/government/publications/government-response-to-the-digital-culture-media-sport-select-committee-report-on-immersive-and-addictive-technologies> (announcing a call for evidence on loot boxes in connection with a review of UK gambling law); United Kingdom House of Lords, Select Committee on the Social and Economic Impact of the Gambling Industry, *Report of Session 2019–2, Gambling Harm— Time for Action* (July 2, 2020) at 115, <https://publications.parliament.uk/pa/ld5801/ldselect/ldgamb/79/79.pdf> (recommending that loot boxes be regulated as gambling “without waiting for the Government’s wider review of the Gambling Act”); Kansspelautoriteit, *Loot boxes*, <https://kansspelautoriteit.nl/english/loot-boxes/> (describing findings of the Netherlands Gaming Authority); Chaim Gartenberg, *Belgium defines video game loot boxes as illegal gambling*, *The Verge*, Apr. 15, 2018, <https://www.theverge.com/2018/4/25/17280440/belgium-video-game-loot-boxes-illegal-gambling>; Josh Ye, *China wants to limit the number of loot boxes players can buy*, *Abacus*, Aug. 15, 2019, <https://www.abacusnews.com/digital-life/china-wants-limit-number-loot-boxes-players-can-buy/article/3022774>.

<sup>3</sup> See, e.g., *National Coverage of Senator Hassan Securing Guarantee from FTC Chairman to Investigate Loot Boxes in Video Games*, Nov. 29, 2018, <https://www.hassan.senate.gov/news/in-the-news/national-coverage-of-senator-hassan-securing-guarantee-from-ftc-chairman-to-investigate-loot-boxes-in-video-games>; *Senators Hawley, Markey, and Blumenthal File Legislation to Stop Manipulative Video Game Practices Aimed at Children*, May 23, 2019, <https://www.hawley.senate.gov/senators-hawley-markey-and-blumenthal-file-legislation-stop-manipulative-video-game-practices-aimed>; Michael Brestovansky, *Bills target video games with rewards for a price*, *Hawaii Tribune-Herald*, Feb. 12, 2018, <https://www.hawaiitribune-herald.com/2018/02/12/hawaii-news/bills-target-video-games-with-rewards-for-a-price/>; Kyle Orland, *The legislative fight over loot boxes expands to Washington state*, *Ars Technica*, Jan. 25, 2018, <https://arstechnica.com/gaming/2018/01/the-legislative-fight-over-loot-boxes-expands-to-washington-state/>. To date, no federal or state legislation has been enacted.

<sup>4</sup> The ESRB is a self-regulatory body founded by what is now known as the Entertainment Software Association. See *About ESRB*, <https://www.esrb.org/about/>.

<sup>5</sup> Public comments submitted to the FTC Loot Box Workshop Docket (FTC-2019-0021) are viewable at <https://www.regulations.gov/docket?D=FTC-2019-0021>.

<sup>6</sup> See, e.g., *Loot Box Workshop, Remarks of Jeff Haynes, Senior Editor of Video Games at Common Sense Media*, at 30, 33-38; *Remarks of Anna Laitin, Director of Financial Policy at Consumer Reports*, at 183-184; see also Stanley Pierre-Louis, Entertainment Software Association, *Comment from the Entertainment Software Association on the FTC Workshop, ‘Inside the Game: Unlocking the Consumer Issues Surrounding Loot Boxes’*, June 7, 2019 (hereinafter “ESA June 2019 Comment”), at 4-6 (describing three different video game microtransaction processes).

<sup>7</sup> See, e.g., *Loot Box Workshop, Remarks of Renee Gittins, Executive Director of the International Game Developers Association*, at 69-70.

<sup>8</sup> *Loot Box Workshop, Remarks of Sean Kane, Partner at Frankfurt Kurnit Klein & Selz*, at 15-24; *Remarks of John Breyault, Vice President for Public Policy Telecommunications and Fraud at the National Consumers League*, at 56-58.



<sup>9</sup> *Loot Box Workshop, Remarks of John Breyault*, at 56-58; ESA June 2019 Comment, at 4.

<sup>10</sup> *Loot Box Workshop, Remarks of John Breyault*, at 58-60.

<sup>11</sup> *Loot Box Workshop, Remarks of Renee Gittins*, at 71-72.

<sup>12</sup> *Loot Box Workshop, Remarks of Sean Kane*, at 25-26.

<sup>13</sup> *Loot Box Workshop, Remarks of Patricia Vance, President of the Entertainment Software Rating Board*, at 168-169. Google Play and several other digital storefronts use the International Age Rating Coalition (IARC) age classification system, of which ESRB is a participating rating authority. *See About IARC*, <http://www.globalratings.com/about.aspx>. Mobile apps in the Apple App Store are reviewed and assigned age and content ratings by Apple, Inc.

<sup>14</sup> *Loot Box Workshop, Remarks of Sean Kane*, at 26; *Remarks of Michael Warnecke, Senior Policy Counsel for the Entertainment Software Association*, at 45.

<sup>15</sup> *See, e.g., Loot Box Workshop, Remarks of Jeff Haynes*, at 29-30; *Remarks of Omeed Dariani, CEO of Online Performers Group*, at 78.

<sup>16</sup> *See, e.g., Loot Box Workshop, Remarks of Jeff Haynes*, at 32-33.

<sup>17</sup> *Id.* at 39-40.

<sup>18</sup> *Loot Box Workshop, Remarks of Omeed Dariani*, at 79-80.

<sup>19</sup> *See, e.g., Loot Box Workshop, Remarks of John Breyault*, at 60-63; *Remarks of Anna Laitin*, at 179-185; *Remarks of Ariel Fox Johnson, Senior Counsel for Policy and Privacy at Common Sense Media*, at 198-199.

<sup>20</sup> *See, e.g., Loot Box Workshop, Remarks of John Breyault*, at 62; *Remarks of David Zendle, Media Effects Specialist and Lecturer, York St. John University*, at 115-117; *Remarks of Keith Whyte, Executive Director of the National Council on Problem Gambling*, at 186-188; *Remarks of Michael Warnecke*, at 42, 46.

<sup>21</sup> *Loot Box Workshop, Remarks of John Breyault*, at 60-61.

<sup>22</sup> Michael Warnecke, *Comment from the Entertainment Software Association on the FTC Workshop, 'Inside the Game: Unlocking the Consumer Issues Surrounding Loot Boxes'*, Oct. 11, 2019 (hereinafter "ESA October 2019 Comment"), at 6, n.28.

<sup>23</sup> *Loot Box Workshop, Remarks of Omeed Dariani*, at 81-82; *Remarks of John Breyault*, at 93; *Remarks of Ariel Fox Johnson*, at 200.

<sup>24</sup> *See, e.g., Loot Box Workshop, Remarks of Jeff Haynes*, at 33; *Remarks of Adam Elmachtoub, Assistant Professor of Industrial Engineering and Operations Research at Columbia University*, at 159; *Remarks of David Zendle*, at 159-160; *Remarks of Ariel Fox Johnson*, at 198-199; *Remarks of Keith Whyte*, at 216-218.

<sup>25</sup> *See, e.g., Loot Box Workshop, Remarks of Omeed Dariani*, at 80-81; *Remarks of Jeff Haynes*, at 97-99; *Remarks of David Zendle*, at 119-120; *Remarks of Anna Laitin*, at 184; *Remarks of Ariel Fox Johnson*, at 198-204.

<sup>26</sup> *Loot Box Workshop, Remarks of John Breyault*, at 94; *Remarks of Jeff Haynes*, at 95-96, 97-99.

<sup>27</sup> *Loot Box Workshop, Remarks of Sarah Domoff, Assistant Professor, Department of Psychology, Central Michigan University*, at 149-150, 163-165; *Remarks of Ariel Fox Johnson*, at 201-204.

<sup>28</sup> *See, e.g., Loot Box Workshop, Remarks of Keith Whyte*, at 190-191.

<sup>29</sup> *See, e.g., Loot Box Workshop, Remarks of John Breyault*, at 66; *Remarks of Adam Elmachtoub*, at 163-164; *Remarks of Anna Laitin*, at 181; *Remarks of Keith Whyte*, at 209, 217.

<sup>30</sup> Apple App Store Review Guidelines, Payment 3.1.1., <https://developer.apple.com/app-store/review/guidelines/>; Google Play Developer Policy Center, *Monetization and Ads, Payments*, <https://play.google.com/about/monetization-ads/>; *see also* Ben Kuchera, *Apple adds new rules for loot boxes, requires disclosure of probabilities*, Polygon, Dec. 21, 2017, <https://www.polygon.com/2017/12/21/16805392/loot-box-odds-rules-apple-app-store>; Jules Wang, *Sex, loot boxes, and hate speech: Google tightening up Play Store policies all over*, Android Police, May 29, 2019, <https://www.androidpolice.com/2019/05/29/sex-loot-boxes-and-hate-speech-google-tightening-up-play-store-policies-all-over/>.

<sup>31</sup> *Loot Box Workshop, Remarks of Michael Warnecke*, at 53-54.

<sup>32</sup> *See, e.g., Microsoft Store Policy 10.8.4*, <https://docs.microsoft.com/en-us/windows/uwp/publish/store-policies#108-financial-transactions> (requiring developers to disclose the odds of receiving each item available in loot boxes prior to purchase and defining acceptable methods to display disclosures); Xbox Game Studios Loot Box Policies, [www.xbox.com/en-US/for-everyone/responsible-gaming/loot-boxes](http://www.xbox.com/en-US/for-everyone/responsible-gaming/loot-boxes) (applying six principles to Xbox Game Studio loot box offerings, including fair value, non-paid loot box options, and content and purchase disclosures).

<sup>33</sup> ESA October 2019 Comment, at 4.

<sup>34</sup> *Loot Box Workshop, Remarks of John Breyault*, at 94; *Remarks of Jeff Haynes*, at 95-96; *Remarks of Anna Laitin*, at 179-185; *Remarks of Ariel Fox Johnson*, at 198-199.

<sup>35</sup> *Loot Box Workshop, Remarks of John Breyault*, at 62-63; *Remarks of Anna Laitin*, at 181-183.

<sup>36</sup> *Loot Box Workshop, Remarks of Sean Kane*, at 26-27; *Remarks of Michael Warnecke*, at 47-48, 53, 95; *Remarks of Renee Gittins*, at 73.

<sup>37</sup> *Loot Box Workshop, Remarks of Patricia Vance*, at 174.

<sup>38</sup> *Loot Box Workshop, Remarks of John Breyault*, at 63-65; *Remarks of Omeed Dariani*, at 103. *See FTC Guides Concerning the Use of Endorsements and Testimonials in Advertising* (16 C.F.R. Part 255), <https://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-publishes-final-guides-governing-endorsements-testimonials/091005revisedendorsementguides.pdf>; FTC, *Disclosures 101 for Social Media Influencers*, [https://www.ftc.gov/system/files/documents/plain-language/1001a-influencer-guide-508\\_1.pdf](https://www.ftc.gov/system/files/documents/plain-language/1001a-influencer-guide-508_1.pdf).

<sup>39</sup> *Loot Box Workshop, Remarks of Omeed Dariani*, at 101-103.

<sup>40</sup> ESA October 2019 Comment, at 6.

<sup>41</sup> *Loot Box Workshop, Remarks of Sean Kane and Omeed Dariani*, at 103-105.

<sup>42</sup> *Id.* at 105-106.

<sup>43</sup> In various contexts, the FTC has taken enforcement action for failure to adequately disclose payments to social media influencers. *See, e.g., FTC v. Teami, LLC et al.*, No. 8:20-cv-518-T-33TGW (M.D. Fla. Mar. 17, 2020) (stipulated final order) (alleging deceptive influencer practices); *FTC Warning Letters to Teami Influencers* (Mar. 5, 2020) (advising influencers that they must clearly and conspicuously disclose their financial or other material connection with the brand in the same post/video as the endorsement), <https://www.ftc.gov/system/files/documents/cases/1823174teamiwarningletters.pdf>; *In the Matter of CSGO Lotto, Inc. et al.*, Docket No. C-4632 (FTC Nov. 29, 2017) (decision and order) (settling allegations that influencers deceptively endorsed CSGO Lotto without disclosing their ownership interests), [https://www.ftc.gov/system/files/documents/cases/1623184\\_c-csgolotto\\_decision\\_and\\_order.pdf](https://www.ftc.gov/system/files/documents/cases/1623184_c-csgolotto_decision_and_order.pdf).

<sup>44</sup> *Loot Box Workshop, Remarks of David Zendle*, at 115-117.

<sup>45</sup> *Loot Box Workshop, Remarks of Andrey Simonov, Assistant Professor of Marketing at Columbia Business School*, at 126-136.

<sup>46</sup> *Loot Box Workshop, Remarks of Adam Elmachtoub*, at 136-147.

<sup>47</sup> *Loot Box Workshop, Remarks of Sarah Domoff*, at 148-155.

<sup>48</sup> *Loot Box Workshop, Remarks of Patricia Vance*, at 170, 175-176.

<sup>49</sup> *Id.* at 177-178.

<sup>50</sup> ESRB, *Introducing a New Interactive Element: In-Game Purchases (Includes Random Items)*, Apr. 13, 2020, <https://www.esrb.org/blog/in-game-purchases-includes-random-items/>.

<sup>51</sup> *Loot Box Workshop, Remarks of Ariel Fox Johnson*, at 205, 210; *Remarks of Keith Whyte*, at 208-209; *Remarks of Anna Laitin*, at 210-211.

<sup>52</sup> *See, e.g., Loot Box Workshop, Remarks of John Breyault*, at 66-67, 94; *Remarks of Jeff Haynes*, at 95-96, 97-99; *Remarks of Keith Whyte*, at 190.

<sup>53</sup> *See, e.g., Loot Box Workshop, Remarks of John Breyault*, at 106-107; *Remarks of Anna Laitin*, at 228; *Remarks of Ariel Fox Johnson*, at 229. *See also Remarks of Renee Gittins*, at 73-74 (sharing perspectives of game developers who support and oppose regulation); *Remarks of Omeed Dariani*, at 83-84; *Remarks of Adam Elmachtoub*, at 145-146.

<sup>54</sup> *Loot Box Workshop, Remarks of Keith Whyte*, at 191-192, 196, 227-228.

<sup>55</sup> *Loot Box Workshop, Remarks of Renee Gittins*, at 73-74, 74-75; *Remarks of Omeed Dariani*, at 86; *Remarks of Patricia Vance*, at 228-229.

<sup>56</sup> *See, e.g., Loot Box Workshop, Remarks of Michael Warnecke*, at 53-55; *Remarks of Renee Gittins*, at 75; *Remarks of John Breyault*, at 94; *Remarks of Jeff Haynes*, at 95-96, 98; *Remarks of Anna Laitin*, at 182-183.

<sup>57</sup> *Loot Box Workshop, Remarks of David Zendle*, at 125; *Remarks of Keith Whyte*, at 189.

<sup>58</sup> *Loot Box Workshop, Remarks of Adam Elmachtoub*, at 145-146.

<sup>59</sup> *Loot Box Workshop, Remarks of Sarah Domoff*, at 148-149.

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<sup>60</sup> *Loot Box Workshop, Remarks of Renee Gittins*, at 75; *Remarks of Michael Warnecke*, at 100-101; *Remarks of Patricia Vance*, at 178-179; *Remarks of Ariel Fox Johnson*, at 204-206.

<sup>61</sup> *Loot Box Workshop, Remarks of Jeff Haynes*, at 39; *Remarks of Michael Warnecke*, at 53.

<sup>62</sup> *Loot Box Workshop, Remarks of Jeff Haynes*, at 30, 34-35, 39; *Remarks of Omeed Dariani*, at 77-78; *Remarks of John Breyault*, at 106-107; *Remarks of Michael Warnecke*, at 110-111.

<sup>63</sup> See, e.g., Tae Kim, *EA vows to never offer paid 'loot boxes' in its controversial 'Star Wars Battlefront II' game*, CNBC, Mar. 16, 2018, <https://www.cnbc.com/2018/03/16/ea-vows-to-never-offer-paid-loot-boxes-in-its-controversial-star-wars-battlefront-ii-game.html>; Georgina Torbet, *'Rocket League' update removes loot boxes from the game*, Engadget, Dec. 5, 2019, <https://www.engadget.com/2019-12-05-rocket-league-removes-loot-boxes.html>; Kyle Orland, *So long, supply drops: Call of Duty gets rid of randomized loot boxes*, Ars Technica, Oct. 17, 2019, <https://arstechnica.com/gaming/2019/10/so-long-supply-drops-call-of-duty-gets-rid-of-randomized-loot-boxes/>; Chaim Gartenberg, *Destiny 2 will remove paid loot boxes in favor of a Fortnite-style battle pass*, The Verge, Feb. 26, 2020, <https://www.theverge.com/2020/2/26/21154809/destiny-2-paid-cosmetic-loot-boxes-fortnite-style-season-battle-pass-ending>.

<sup>64</sup> Jason Cohen, *Over a Third of Gamers Say They Play More in Quarantine*, PCMagazine, June 19, 2020, <https://sea.pcmag.com/the-why-axis/37891/over-a-third-of-gamers-say-they-play-more-in-quarantine>.