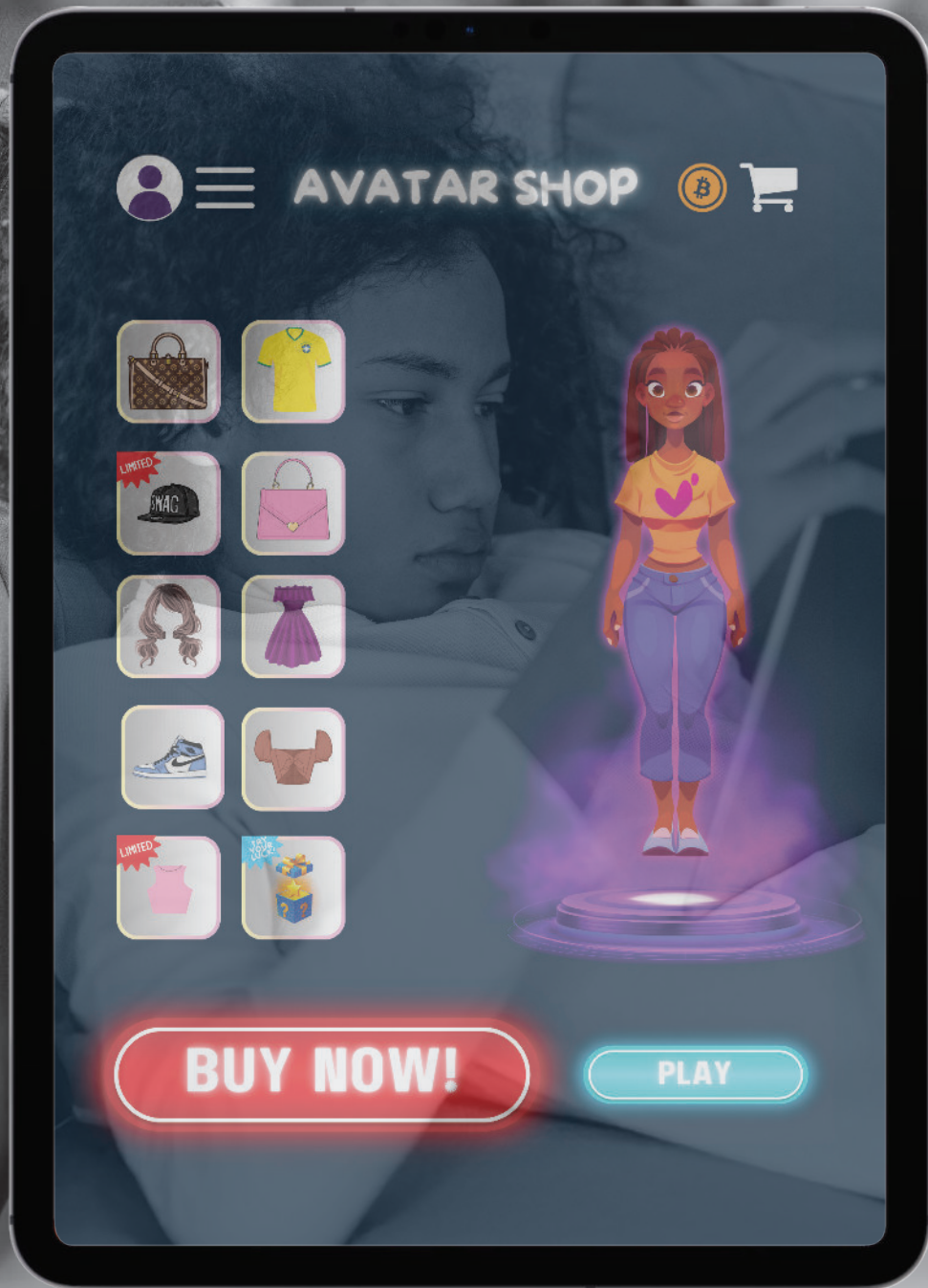


# BUYING BELONG

Youth and Virtual Assets in the Metaverse



February 2025



**fairplay**<sup>sm</sup>  
childhood beyond brands

# BUYING TO BELONG

## Youth and Virtual Assets in the Metaverse

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### ABOUT FAIRPLAY

Fairplay works to enhance children's well-being by eliminating the exploitative and harmful business practices of marketers and Big Tech. We are the leading nonprofit committed to helping children thrive in an increasingly commercialized, screen-obsessed culture, and the only organization dedicated to ending marketing to children. Our work routinely makes headlines around the world, and our advocacy has forced some of the world's biggest corporations — including Google, Disney, Mattel, Meta and Amazon — to change their marketing and data collection practices. Fairplay is also the home of the Screen Time Action Network, a global coalition of children's activists and advocates working to reduce excessive technology use harming children, teens, and families.



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## EXECUTIVE SUMMARY

Social gaming platforms like *Fortnite* and *Roblox* are overtaking social media as young people's go-to virtual environments. Gen Alpha (ages 0-14) spends only eight minutes a day creating social media content, yet dedicates nearly 1.5 hours a day to gaming.<sup>1</sup> Unfortunately, this shift from social media to social gaming is no cause for celebration. This is because social gaming platforms are just as recklessly monetized as social media platforms.

This report examines the intersection of social gaming monetization and adolescent development, documenting how freemium social gaming platforms like *Fortnite* and *Roblox* monetize community and creative expression by exploiting adolescents' developmental needs and vulnerabilities. We call for immediate regulatory action to stop the use of these aggressively exploitative monetization strategies because these strategies pose systemic and foreseeable risks to the physical, mental, and financial well-being of younger players. Without meaningful regulation, these strategies are likely to dominate VR environments where the harms described in this report will increase in intensity and probability.

The data underpinning this report were collected using a comprehensive approach that included industry discourse analysis, focus groups with players ages 9-15 from across the United States, and participant observation within leading social gaming platforms.

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### This report is divided into five sections.

1. Section one provides **background information**. It defines key concepts, describes what motivates adolescents to spend time on social gaming platforms, and describes what motivates marketers to target adolescents as consumers. It also offers an overview of common targeting strategies.
2. Section two details **seven worrisome trends in social gaming monetization**, all of which involve responding to young people's well-documented aversion to intrusive ads by using community-oriented marketing techniques that exploit young people's developmental needs and vulnerabilities. It describes the design features and game mechanics associated with each trend and how they work together to increase profits by manufacturing social and emotional pressures that are especially oppressive and harmful for adolescents.
3. Section three uses **young people's own words** to communicate why they spend time in social gaming environments, what they experience there, and how they feel about what happens there. We incorporate insights from the industry analysis and participant observation phases of this project to provide additional context. Ultimately, although young people value interacting with friends on these platforms, they also condemn manipulative design features as well as toxic behavior from other players, and call for meaningful change.
4. Section four details how exploiting adolescent developmental needs and vulnerabilities for profit poisons social gaming communities, exposing the adolescents who participate in these communities to a **host of harms that are almost impossible to avoid**.

5. We conclude this report by describing the **steps that policymakers, regulators, educators, and families can take NOW** to ensure young players are having safer, more age-appropriate experiences on social gaming platforms.

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## Key Findings:

What happens in virtual worlds is of increasing importance to young people. Young people treat social gaming platforms as third places, using them to conduct essential psychosocial work – particularly socializing with peers, identity exploration, and authentic self-expression. Social gaming platforms, however, exploit young people’s developmental need to perform this work and poison in-game communities with design features and game mechanics that motivate purchasing behavior by manufacturing social and emotional pressure. For example:

- Young people and their families can experience significant **financial harm** due to a powerful combination of “obfuscation techniques” like in-game currency, design features that encourage players to link self-understanding and self-expression to virtual goods, and behavioral targeting.
- Racism, homophobia, and other forms of **identity-based bullying and harassment** are facilitated by monetization techniques that commodify identity and leverage adolescents’ status sensitivity and developmental need for self-expression and peer acceptance.
- Players can experience **stress, burnout, and a diminished sense of enjoyment** due to monetization strategies that leverage peer pressure and status sensitivity to drive engagement and purchasing behavior. For some players, the pursuit of extrinsic rewards like achievement badges and rare skins becomes all-consuming as players prioritize virtual success over intrinsically-rewarding real-world relationships and activities.
- Engagement-maximizing design features like streaks combined with game mechanics that increase players’ emotional attachment to a gaming platform can also lead to **harmful overuse, affecting both mental and physical health**. Players who face social rejection, harassment, and bullying in these environments are at higher risk of mental health harm.

Young people believe **social gaming platforms** could be improved by eliminating manipulative designs, introducing more transparency around virtual currency and microtransactions, and reducing bullying, scamming, cheating, and hacking.

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## Call to Action:

Self-regulation is not the answer.

Now is the time to protect young people from unnecessary harm. Regulators — including the Federal Trade Commission and state attorneys general — should scrutinize these platforms under existing consumer protection law, and policymakers should pass privacy and safety by design legislation to address manipulative and harmful design and business practices. Moreover, companies need not wait for government action. They can make changes now that meaningfully and positively impact youth experiences. Together, we can and must ensure innovation takes a prosocial direction, prioritizing the development and safety of young people over the reckless pursuit of profit. ■

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**Trigger Warning** *This report discusses topics that may be distressing to some readers, including online harassment, cyberbullying, identity-based discrimination, financial exploitation, and problematic gaming behaviors. Additionally, the report includes first-hand accounts from young people and references to experiences of racism, homophobia, and other forms of identity-based harm. This report also mentions suicide.*

*We recognize that these issues can be difficult to read about, especially for those who have experienced similar challenges. If you find any part of this report distressing, we encourage you to prioritize your well-being by taking breaks, seeking support, or engaging with the material at a pace that feels safe for you.*

*Our goal is to shed light on these pressing concerns in order to advocate for meaningful change and stronger protections for young people in virtual spaces.*

# Foreword

Nine years ago, my 16-year-old son David died by suicide after a yearlong battle with social media and internet gaming addiction and months of threatening cyberbullying that left him feeling helpless and hopeless. David was kind and compassionate, an Eagle Scout and a talented basketball player who loved the outdoors.

All of that changed when he fractured his back from overuse caused by playing too much basketball. While he was rehabbing, David turned to video games and social media to fill the void, and over a nine-month period, his behavior completely changed as he developed a digital addiction.

David became obsessed with purchasing add-ons for his video game characters to increase his player power. He even began stealing from us by using our credit cards without our authorization and racking up hundreds of dollars in charges.

To non-gaming adults, it may seem puzzling that a boy would become obsessed with purchasing virtual items that have no “real-world” value. But that underestimates the extent to which these virtual worlds are the real world for many young people. Gaming companies understand this and exploit young people’s developmental vulnerabilities so that purchasing add-ons doesn’t seem optional to many kids and teens.

David’s addiction to gaming involved social media platforms as well, where he learned tips, tricks and tactics from professional gamers. The pull of the 2D worlds of gaming and social media is strong. And as this report so powerfully describes, the design features and community-oriented marketing tactics that 2D gaming platforms use to hawk virtual goods and spark obsession are an even more powerful force in XR environments.

Since David’s death, I’ve become an advocate for online safety so that no other family will have to go through what my family has. For the past three years, I’ve advocated tirelessly for the Kids Online Safety Act (KOSA), which would create a duty of care so that social media and gaming platforms have to prevent design-caused harms like cyberbullying and compulsive spending. We cannot repeat the mistakes of social media and allow XR companies to maintain a toxic business model without any responsibility to make their platforms safe.

Sincerely,

*Maurine Molak*

Maurine Molak  
San Antonio, TX  
January 2025

# INTRODUCTION



Social gaming platforms like *Fortnite* and *Roblox* are surpassing social media as young people's preferred virtual environments. Gen Alpha (ages 0-14) spends only eight minutes a day creating social media content, but nearly 1.5 hours gaming. And while 47% of tweens claim to enjoy gaming "a lot," only 12% feel the same way about social media.<sup>2</sup> It is no wonder the *Washington Post* crowned gaming "the new social media."<sup>3</sup> Monthly active user numbers for *Fortnite* and *Roblox* support *The Post's* claim. As of 2024, *Roblox* reports 380 million monthly active players, 58% of whom are under 16.<sup>4</sup> *Fortnite* also has a significant young audience, with 230 million monthly active players, 35% of whom are between the ages of 10 and 14.<sup>5</sup>

## What are social gaming platforms?

Social gaming platforms are online, immersive environments that integrate gaming with shopping and social interactions, enabling players to create customizable avatars and collaborate, compete, and connect with other players in real time. These platforms are accessible via consoles, computers, tablets, mobile phones, and/or virtual reality (VR) devices, and are often considered precursors to "the metaverse."

In *Fortnite*, *Roblox*, and other social gaming platforms, young people are doing what people do in third places: talking, laughing, playing games, people-watching, and hanging out.<sup>6</sup> Shared experiences like these foster social connection and strengthen community bonds. Indeed, a recent survey found that "[a]mong adolescents who game, 68.4% said they found community."<sup>7</sup> This is not an accident.

Gaming platforms like *Roblox* and *Fortnite* are designed to cultivate engaged communities. Built-in

"social features" like voice and text chat, multiplayer modes, creative modes, friend lists, lobbies, gifting systems, and leaderboards allow players to communicate, compare themselves to other players, form teams, build custom experiences, and otherwise interact. Virtual goods like avatars, skins, clothing, accessories, pets, vehicles, and emotes motivate and support player interaction. (See Appendix A for definitions.) For example, a rare accessory can serve as an ice-breaker or topic of conversation, while vehicles can provide opportunities to chat with a small group of players. Emotes allow players to express themselves non-verbally or engage in group performances. Furthermore, customizable avatars play a key role in shaping community dynamics within gaming environments, acting as tools for self-presentation and self-expression. Research indicates that 58% of players between the ages of six and 16 buy virtual goods to customize their avatars.<sup>12</sup>

For young people, the virtual world is becoming increasingly salient. Over half of Gen Z gamers (56%) believe that styling their virtual avatars is more important than styling their physical bodies and 84% of respondents acknowledged that their offline style is at least somewhat influenced by their avatars' style, with over half (54%) feeling extremely inspired by their virtual looks. Additionally, 50% of users indicated they would be extremely likely to wear a brand's item offline after trying it virtually.<sup>13</sup> (See Appendix B for definitions and descriptions of virtual goods and how they are acquired by young people.)

Young people's enthusiasm for virtual third places and virtual self-fashioning, combined with their tendency toward social comparison, has skyrocketed profits for the platforms they favor. For example, *Roblox* sold 1.6 billion virtual fashion items in the first three quarters of 2023, a 15% increase from the previous year.<sup>15</sup> Similarly, *Fortnite*

## Third Places: Online v. Offline

Third places are places where like-minded people gather “easily, inexpensively, regularly, and pleasurably.”<sup>8</sup> Parks, cafes, barber shops, malls, and recreation centers serve as classic, offline examples.

The term *third place*, coined by sociologist Ray Oldenburg, comes from the idea that our lives unfold across three distinct types of places. Our homes are “first” places, the places we go to retreat from public view. “Second” places are where we work or go to school. They are institutional places characterized by hierarchical relationships and task-oriented interactions. Because of this, they lack social neutrality. In contrast to second places, third places are characterized by playfulness and lack of obligation. As conceived by Oldenburg, third places provide a stable, neutral ground for sharing experiences, making jokes, playing games, and simply enjoying the company of other people.<sup>9</sup>

Research has shown that third places support mental health by lessening feelings of loneliness and alienation and relieving stress.<sup>10</sup> Third places are particularly significant during adolescence because this is a time in our lives when our peer relationships provide a framework for social identity and our brains are highly attuned to social rewards. (We discuss adolescence as an important developmental phase in greater detail below.)

Offline third places are vanishing, especially places that are accessible to people who are too young to drive, have limited financial resources, or live in areas with limited green space or with weather or safety concerns. Lack of access to offline third places has left many young people seeking alternative spaces for unstructured socializing and community.<sup>11</sup>

Social gaming platforms, especially since the onset of the COVID pandemic, have emerged as popular online third places.

*“Third Place” continued on page 9*

generated \$50 million USD only two months after launching NFL-themed virtual assets, a “wild” profit according to *Forbes*.<sup>16</sup>

## Who are young people?

In this report, we often use the term “young people” to refer to the people who are the focus of our research: players between the ages of nine and 15. Our research focuses on social game players in this age group because marketers view the period leading up to age 16 as the ideal window for establishing strong brand loyalty.<sup>17</sup>

To align with sources cited in the report and to acknowledge young players’ varied identities and experiences, we also use referring terms such as adolescents, kids, teens, LGBTQ+ youth, Black youth, and minors.

Looking ahead, experts predict the metaverse will be at least as popular with young people as social gaming platforms like *Fortnite* and *Roblox*. Estimates suggest that children will spend around 2 hours and 45 minutes per day there, totaling about 10 years of their lifetime.<sup>18</sup> This is why companies continue to invest in the metaverse, even as media attention on the concept has declined. As of 2023, around 70% of businesses have current or future plans to build metaverse experiences, with about half of those businesses dedicating up to a quarter of their marketing budgets to mixed-reality, augmented reality, and virtual reality projects involving headsets.<sup>19</sup>

## What is the metaverse?

While definitions of the term metaverse vary, the concept can be usefully understood as a persistent network of explorable, 3D immersive environments where users move seamlessly from environment to environment and engage in a variety of activities, like gaming, shopping, and socializing.<sup>20</sup>

Right now, Gen Z and Gen Alpha spend as much screen time on video games as they do on TV and movies. Once Disney CEO Bob Iger learned this, he knew he had to prepare Disney to move into the metaverse: “we have to be there, and we have to be there as soon as we possibly can in a very compelling way.”<sup>21</sup> In February 2024, Iger announced Disney’s entry into the metaverse via *Fortnite*,



describing it as a “persistent universe [that] will offer a multitude of opportunities for consumers to play, watch, shop and engage with content, characters and stories from *Disney*, *Pixar*, *Marvel*, *Star Wars*, *Avatar* and more.”

Social gaming platforms like *Fortnite* use the freemium business model – a business model with a strong success rate in the social media industry. The freemium model works by offering free access to a basic version of the platform, while exposing users to targeted advertising and charging them for upgrades. The low barrier to entry encourages rapid growth in user bases. Large, active user bases enhance the appeal of platforms that provide opportunities to socialize and find community. To monetize such a user base, freemium platforms participate in the attention economy and deploy a variety of strategies (described in this report) to convert a percentage of that user base into shoppers.

This is why freemium games like *Fortnite* and *Roblox* are not just games. They are attractive socio-commercial environments where informational and power asymmetries make it easier for companies to manipulate players into performing “target behaviors” that support business interests. Examples of these target behaviors include engaging in microtransactions, staying on the platform, engaging with other players, revealing personal information, and acting as unpaid ambassadors for the platform.

We expect that without regulatory intervention, tomorrow’s metaverse platforms will recklessly target adolescents and systematically prioritize profit over user well-being, just as today’s social media and social gaming platforms do.<sup>22</sup> Adolescence is a critical phase of development that takes place between the ages of 10 and 25, during which the urgency to understand who we are and how we express ourselves to others takes center stage. The psychosocial work we perform during adolescence is essential to our positive development and future health and well-being. This is because this work is about learning who we are, who we want to become, and what matters to us. Our values and interests are evolving during this time – and, if we’re lucky, so is our sense of purpose. We’re experimenting. We’re exploring. We’re pushing boundaries and norms. We’re learning to balance our need for independence with our need to connect. We’re trying to understand our bodies,

*“Third Place” continued from page 8*

They offer many of the social opportunities that offline third places offer, but with important differences.

When it comes to adolescent well-being, one key difference between online and offline third places lies with the social feedback young people receive as they engage in typical adolescent activities like chatting with friends, trying new things, and expressing themselves.

Offline social feedback consists of verbal cues, facial expressions, body language, tone of voice, as well as other forms of emotional expression. In offline settings, social feedback is delivered directly and contextualized by a shared physical environment. These delivery constraints help offline social feedback foster a sense of accountability to the gathering place and the people in it.

In contrast, online social feedback consists of emotes, cartoon thumbs, hearts, ranking systems, friend requests, voice and text chat, and other forms of

machine-mediated communication. In online settings, user expression is limited by the communication tools provided by the platform. Moreover, the platform’s selection and arrangement of these tools is profoundly influenced by that platform’s business objectives. The importance of this fact cannot be overstated. Deep problems arise when humans base our understanding of reality upon machine-delivered feedback that is manipulated for profit. As we describe in this report, social gaming platforms distort social and other forms of feedback for the sake of profit, undermining decision-making and self-perception while reshaping social dynamics to reinforce problematic behaviors like social comparison and groupthink. ■

***Research has shown that third places support mental health by lessening feelings of loneliness and alienation and relieving stress.***

culture, and social dynamics.<sup>23</sup> Our need to perform this kind of psychosocial work as adolescents makes adolescents particularly vulnerable to monetization tactics related to identity formation, social status, peer recognition, and group affiliation.

During adolescence, we become acutely sensitive to social status and social rewards, in part due to developmental changes in areas of the brain related to social cognition, emotional regulation, decision-making, and impulse control.<sup>24</sup> These developmental changes prime us to seek social feedback. To support our positive development, this feedback must be trustworthy. Trustworthy social feedback helps us align our actions with our evolving identities, allowing us to fashion a self that feels authentic (rather than phony) and fostering confidence in expressing that self in relationship with others and in community.<sup>25</sup> Unfortunately, when social feedback is untrustworthy – such as when it is distorted to support business interests – it can undermine these critical developmental processes.

### What is feedback?

Feedback is the response we get after we do something. It plays a major role in how we learn, especially in social situations. A feedback loop occurs when we perform an action, get feedback, and that feedback is used to shape future actions. B.F. Skinner’s research on operant conditioning shows that when rewards and punishments are part of a feedback loop, one-time actions become repeated behaviors.<sup>26</sup>

Social gaming platforms deliberately manufacture feedback loops with their business interests (not adolescents’ well-being) in mind. In fact, the crucial role of social and other forms of feedback in the psychosocial work of adolescence introduces irresistible opportunities for monetizing social gaming platforms. After all, companies “want in today on the metaverse goldrush.”<sup>27</sup> When we better understand the feedback loops that companies intentionally create, we improve our grasp of how their persuasive power impacts youth.

Social gaming platforms, like social media, use feedback loops to spark desire and shape behavior. The “hooked model,” developed by popular app consultant Nir Eyal (a former student of B.J. Fogg, the father of persuasive design), helps us understand how apps can use feedback loops to achieve these goals.<sup>28</sup> In Eyal’s model, an external trigger (like

a notification) prompts a target action (such as opening an app). Over time, what was once an external trigger (like a notification) transforms into an internal one (like boredom).

This trigger transformation process is a feedback loop that involves four steps:

- 1. Trigger:** An external prompt triggers a target action.
- 2. Action:** The action is easy to complete.
- 3. Variable Reward:** The reward for the action varies, creating intrigue.
- 4. Investment:** The user gives something to the app (data, time, effort, their friend’s contact information, money) to enhance their experience, creating a “sunk cost” effect that encourages continued use.<sup>29</sup> The idea is to get the user to believe that investing in the app will improve their experience.<sup>30</sup>

By cycling the user through this feedback loop over and over again, apps using the hooked model can become habit-forming, meaning that the user will return to them without prompting.<sup>31</sup>

Variable rewards are key to habit formation. We are more likely to pursue rewards when we cannot predict their value or the likelihood of obtaining them. As Eyal explains, opening a refrigerator door is easy to do. When we do it, we can be fairly certain that the light inside will turn on. The predictability of this sequence is not compelling. “However,” writes Eyal, “add some variability to the mix - say a different treat magically appears in your fridge every time you open it - and voila, intrigue is created. You’ll be opening that door like a lab animal in a Skinner box.” A person in possession of such a magical refrigerator would have a brain “swimming in dopamine” whenever they anticipated what could be inside.<sup>32</sup> Eyal’s hooked model predicts that if this person could “invest” in their experience with the magical refrigerator by spending time rating the treats it provides, this person would do more than just drool at the thought of opening the door. They would be hooked on opening the door.

Social gaming platforms often use a freemium business model that relies upon Eyal-style feedback loops to drive players to purchase virtual assets. A rotating item shop featuring “limited” or “rare” items acts as the trigger (step one), while simplified purchasing mechanisms (like *Fortnite*’s “Purchase” button) fulfill step two. The variable reward (step

three) comes from the gaming community's reactions. Whether or not the new item is ignored, positively received, or mocked, the platform wins. If the platform persuades users to spend time arranging and curating their personal closet, then the platform has satisfied the model's fourth step.<sup>34</sup>

***“Racking up higher scores, advancing to the next level, or earning and tending to virtual goods like a cow on a farm or the clothes on an avatar, are all examples of the power of commitment. These game mechanics disappear if the user stops playing, increasing the need to stay engaged. The stored value of these elements of the game are earned with time spent playing or purchased outright with real money.”***

**- Nir Eyal, creator of “The Hooked Model”<sup>33</sup>**

(See the “What Young People Have to Say About Social Gaming” section of this report for the youth perspective on tactics like these.)

There are other ways to use feedback loops in game design, and the internet is filled with advice. A tutorial on *Roblox's* Creator Hub shows how creators can use feedback loops that incorporate unique sounds and animations to entice players to buy virtual assets. For example, a weapon with a unique sound or visual effect increases a player's excitement, similar to how lab animals respond to treats. Another example involves designing a level that is extremely difficult to play without buying a specific virtual asset or “grinding” (playing for hours on end) in hopes of earning that asset in a loot box (virtual containers of unknown value). Such a design would push players to buy. Buying the asset in question rewards players with advancement, while failing to purchase it punishes them with stagnation and/or more grinding.<sup>35</sup>

Social gaming platforms incorporate feedback loops like these to maximize player engagement and keep them returning to the platform, even without external prompting. Young players are particularly susceptible to these strategies, as we explain below.

In our current cultural context - shaped by the COVID-19 pandemic, heightened parental fears,

techno-optimism, and an increasingly screen-based childhood - kids struggle to find offline places to socialize with each other and find community.<sup>36</sup> It's no wonder that social gaming platforms have become go-to third places for kids. This report documents how social gaming platforms use social features to cultivate and monetize community. These design features exploit adolescents' developmental needs and vulnerabilities, while also increasing risk of harm.

The same social features that facilitate community development facilitate harassment, while making it easy for predators and other bad actors to gain access to kids and teens. Research and testimony from young people themselves bear this out. Social gaming platforms are places where players can encounter hate speech, misinformation, and illicit content and experience bullying, racism, homophobia, bigotry, gender-based violence, harassment, sexual exploitation.<sup>37</sup> Our own researcher experienced sexual harassment and threats of rape in *VR Chat* prior to this project while using an account set up for a 14-year-old girl.<sup>38</sup>

Research conducted by the Center for Countering Digital Hate showed that users of *VR Chat* - including minors - were exposed to abusive behavior every seven minutes.<sup>39</sup> Making this concerning statistic even more troubling is research suggesting that when we are harassed, bullied, or attacked in today's social gaming systems, our biological systems react as though the experience occurred in the physical world.<sup>40</sup> Such experiences are likely to feel even more harrowing for players using cutting-edge and future technologies capable of increasing the sense of embodiment players feel in XR spaces by providing more opportunities for customization and enabling real-time capture and virtual reproduction of player's facial expressions.<sup>41</sup>

It's important to remember that the devices players use and will use to socialize in VR and AR will capture and share data on a scale unlike anything we've seen. This includes data related to the virtual and physical places we choose to visit, the content we consume, as well as our facial and head/body/limb movements, heart rate variability, electrical activity in our muscles, neural activity, shifts in gaze, and other biometrics.<sup>42</sup> Researchers estimate that “spending just 20 minutes in a VR simulation leaves just under two million unique recordings of body language,”<sup>43</sup> expanding concerns about exploitation and raising significant concerns about privacy.<sup>44</sup>

Meta’s recent decision to lower the age recommendation for its VR headsets from 13 to 10 might lead some observers to assume that these environments are safe enough for young people to hang out in.<sup>45</sup> No evidence supports this assumption. In fact, as our focus group participants emphasized, and as our industry analysis reinforces, while young people can and do enjoy these environments at times, their experiences there are often marred by design-driven coercion, bullying, harassment, and other forms of toxicity. Occasional enjoyment does not equate to a safe and supportive environment.

The grotesque profiteering taking place in social gaming environments raises red flags. Without regulatory action, these environments are unlikely to become safer and will probably become worse. As a society we must recognize that although social gaming platforms are used and enjoyed by young people as virtual third places, they are unnecessary for (and often detrimental to) healthy development. These platforms are more accurately understood as prototypes of “adaptable infrastructure” designed to

motivate the purchase of and facilitate the delivery of monetizable content, services, and marketing messages.<sup>46</sup> These platforms make deliberate design decisions that harm young people while increasing profits, and offer monetizers more customer touchpoints and avenues for persuasion than offline commercial environments.<sup>47</sup>

So, while tech companies continue to disseminate self-serving ideas about today’s kids being “the true digital citizens of the metaverse”<sup>48</sup> and compete to lure kids into immersive socio-commercial environments designed to maximize profit, we must work together to stop the unchecked exploitation of kids’ developmental needs and intrinsic motivations. It would be unfair and outright dangerous to “wait and see” what the metaverse will bring for kids when young people already experience immense harm in its precursors. The precautionary principle — a “better safe than sorry” approach — calls for us to look to the science of child development to chart a path toward immediate and thoughtful regulatory action. ■

***“What we know when we look at player behavior in our games, as players spend more time with friends, they play more, they play for longer, and this higher engagement leads to more in-game spend.”***

**– Andrew Wilson, CEO of Electronic Arts<sup>14</sup>**



## RESEARCH GOALS & APPROACH

Our aim is to understand how marketing virtual and real-world products in social gaming platforms affects adolescents and their development. We also aim to identify ways regulators and other stakeholders can address the negative experiences young people face on these platforms.

The relationship between marketing, social gaming, and adolescent well-being is complex and multifaceted. Accordingly, we developed a comprehensive approach anchored in youth voices and experiences.



**Listening to industry:** In order to make sense of how the tech and marketing industries approach kids, virtual assets, and game design, we reviewed a number of publications, “listening in” to insider discourse about in-game marketing strategies aimed at young people now and in the future.<sup>49</sup> These publications included industry reports from organizations such as Billion Dollar Boy and McKinsey & Company, trade publications like *AdAge*, *Digiday*, and *KidScreen*, popular press articles in publications like *The Wall Street Journal*, nonprofit reports, and academic articles. We refer to this phase as “industry analysis.”



**Listening to young people:** Working with a qualitative research recruitment firm, we brought together a diverse group of young people from across the country between the ages of 9 and 15 for online focus group sessions to help build a more robust understanding of our findings from our publications review. The sessions focused on the social gaming platforms that participants spent time in, their motivations for spending time on these platforms, their experiences with virtual goods, advertising, identity, belonging, social comparison, and what improvements they would like to see. The focus groups were transcribed using AI and edited for accuracy by researchers before being coded.



**Observing social gaming platforms:** Guided by data from our industry analysis and focus groups, we employed participant observation to explore seven social gaming environments: *Roblox*, *Fortnite*, *Rec Room*, *VR Chat*, *Meta Horizon Worlds*, *NBA 2K*, and *Call of Duty*. Researchers used fictional accounts representing diverse user profiles to document the mechanisms by which virtual assets are marketed, the social environment, and specific scenarios discussed in the focus groups. A research diary with screen captures and video recordings supported these observations.

For full details on our methodology, please see Appendix C. ■

# SEVEN WORRISOME TRENDS IN SOCIAL GAMING MONETIZATION



## Overview

To ensure these findings remain relevant despite technological changes and shifting platform trends, this section focuses on widely used, platform-agnostic monetization tactics rooted in developmental and behavioral science rather than specific design features of individual platforms. These monetization tactics support the kind of freemium business models that are common to social gaming platforms.

In what follows, we explain how each monetization tactic operates and why it's profitable. We emphasize the perspective of stakeholders on the business side – venture capitalists and other project financiers, publishers, developers/studios, creators, intellectual property (IP) holders, brands, toy manufacturers, retailers, strategic partners, ad agencies, as well as adtech and martech companies. For the sake of readability, however, we will often default to the terms *social gaming platforms* or *marketers* when referring to these stakeholders.

We call these monetization tactics *worrisome* because they aim to drive young people's behavior as consumers by leveraging what gaming platforms and marketers know – through industry research, behavioral science, the science of child development, and data collection – about young people's preferences, developmental needs, and cognitive biases. As such, these monetization tactics raise concerns about the extent to which they are in compliance with applicable laws aimed at protecting consumer autonomy, decision-making, and choice.

In general, social gaming platforms generate revenue via a variety of streams, including sales of the game itself or subscription access, microtransactions that usually involve virtual currency, licensing agreements (such as being able to use movie characters in games), other types of strategic partnerships, and advertising.

The monetization tactics described in this section impact multiple revenue streams at once, are often interrelated, and facilitate data collection and use.

Data collection and use practices, of course, are ultimately key to generating revenue. This is because, as the Brookings Institution explains, the “opening advantage in the metaverse will go to those with the data to make the new virtual activities relevant to the user.”<sup>50</sup> Social gaming platforms collect data of all kinds – behavioral data, social data, biometric data, and geolocation data. This data is often combined with data related to off-platform behavior and activities, gathered passively, inferred, “shared,” or purchased. Data can be monetized in a variety of ways. It can be monetized directly, sold in packaged form to third parties. It can also be indirectly monetized. For example, data can be used to market a gaming platform; to inform game development decisions; to make a game more engaging in real-time; to reduce player attrition; to drive microtransactions and provide highly-personalized pricing; to support dynamic, in-game advertising; and to boost the effectiveness of matchmaking systems. Many of these indirect monetization practices involve the use of automated decision-making technologies.

The strategies described in this section monetize data indirectly in support of organic marketing and user acquisition strategies. These strategies are termed organic because they promote so-called natural engagement with brands, in contrast to paid, data-driven engagement. Organic strategies include social media engagement, word-of-mouth marketing, as well as advergames and other forms of branded content. Most organic marketing can reasonably be placed under the rubric of blurred advertising. Targeting young players with blurred advertising is especially appealing to monetizers because of restrictions on tracking and targeting

imposed by the Children’s Online Privacy Protection Act (COPPA) and younger players’ well-documented aversion to intrusive ads.<sup>51</sup>

Organic marketing rose in popularity in the wake of Apple’s App Tracking Transparency (ATT) feature, first enforced in 2021 as part of iOS 14.5. ATT restricts the use of Apple’s Identifier for Advertisers (IDFA) tool, which tracks users across apps and websites and shares that data with advertisers and other third parties. With ATT, users must be given a clear choice to opt out of this tracking, and initially, many chose to do so. This meant that the number of easy-to-track users decreased, thereby increasing costs for developers and advertisers.<sup>52</sup> To survive, affected gaming platforms had to adopt less data-dependent ways to reduce player turnover, market their games, and target players with ads. They also need to find ways to encourage users to opt-in to

tracking.<sup>53</sup> The strategies developed to accomplish these goals, many of which are described below, have proven to be particularly attractive to younger players.<sup>54</sup> The strategies we describe here are likely to persist in their most powerful (and harmful) forms as long as efforts to protect children continue to focus on privacy protection alone.

Of course, since data abuse is profitable, privacy protection is also crucial to reducing online harms. Today’s commercial surveillance ecosystem threatens young people’s privacy while increasing the power platforms have to modify user behavior in ways that also put users’ health and safety at risk. Along the way, this ecosystem exposes young people to bad actors, increasing risks to their health and safety. That said, as we hope this section makes clear, organic marketing strategies can be just as (if not more) harmful to young people than data abuse.

# 1

## MONETIZATION TREND 1

# Community Development & Engagement

Young people find community within social gaming platforms because these platforms develop “engaged” communities as a monetization strategy. Engaged gaming communities are made up of players who interact with each other and with brands.<sup>55</sup> Platforms use a range of design features and game mechanics to drive community development and engagement. For example, communications tools like text and voice chat make in-game collaboration possible. Guild systems and public quests motivate collaboration and give players a sense of shared identity and purpose. Tournaments and livestreams offer another way to bring players together and encourage ongoing discussion and collaboration outside of the game. Cinematic storylines deepen players’ emotional connection to the game, as do IP-based skins and gameplay. The pervasive use of design features and game mechanics like these have ensured that online gaming is no longer thought of as a solitary experience but rather a social one in which players have the potential to feel a sense of belonging.<sup>56</sup>

When players interact with each other the platform hosting their community benefits. Players spend more money as their emotional attachment to the game and its community increases. Emotional

attachment to platforms and the communities they host drives loyalty, and loyal players are valuable to a platform because player acquisition costs money. Moreover, once a community is recognizable as such, it can be turned into a marketing target.

Unfortunately, the same design features and game mechanics that promote community also activate feelings of exclusion in ways that benefit the platform. For example, guild systems can motivate collaboration and also fuel rivalry. Either way, this game mechanic drives engagement. Likes and other reactions can signal social approval (and when absent) social rejection. Friend lists and follower counts (when high) can

***“The brand touchpoints that most influence behaviors in kids are social content, conversations with friends, and tangible, real-life interactions with the brand or product. If a child undertakes one or more of these actions, there is a direct correlation with the formation of later loyalty.”***

**– Superawesome<sup>57</sup>**

reinforce feelings of social inclusion or (when low) alienation. Either way, these design features motivate players to buy virtual goods that signal community alignment. These are just some examples of design decisions that motivate engagement and in-game spending by activating persuasion dynamics that B.J. Fogg calls “social influence.”<sup>58</sup>

Social influence is a key mechanism by which community norms are established and reinforced. It often manifests as social comparison, peer pressure, or observational learning (learning by watching and imitating others).<sup>59</sup> Social comparison is an especially powerful force in online gaming platforms. Platforms are designed to encourage it through a variety of features that highlight players’ achievements, status, and behaviors. These mechanisms fuel a feedback loop in which players assess themselves against their peers, increasing player motivation to engage in observational learning to improve and understand their social status. Positive comparisons, such as acquiring coveted in-game items or winning a timed challenge, can reinforce a sense of belonging and boost status. The reverse, however, is also potent. Negative comparisons can trigger feelings of inadequacy or exclusion, heightening players’ vulnerability to peer pressure. As players observe and imitate the behavior of others, community norms emerge often sculpted by peer pressure and bullying. Conformity to these norms both validates and entrenches them.

Belonging is not something that platforms guarantee. They only promise it, because only the promise drives profit. By using design features and game mechanics that offer opportunities for players to seek and find social acceptance, social gaming platforms drive both engagement and purchasing behavior.

Of course, social influence is a powerful behavior-sculpting force offline and online. This is because people who do not conform to community norms risk marginalization and even exclusion. Online environments that monetize community amplify the power of social influence to shape behavior, as we describe in greater detail in the “What Young People Have to Say About Social Gaming” and “How Social Gaming Platforms Exploit and Harm Young People” sections of this report. And in social gaming platforms where avatar customization is tied to both self-expression and status, the pressure to buy to belong can be overwhelming for some young users.

Even players who feel deeply connected to a gaming community are susceptible to community-oriented

marketing strategies, especially strategies involving the *halo effect*. The halo effect is a decision-making bias in which our overall impression of a person, object, or product is positively influenced by our admiration of a specific trait.<sup>60</sup>

To leverage the halo effect, marketers connect with their target audience “through the things they already love.”<sup>61</sup> This tactic is sometimes called *halo borrowing*. A brand can borrow the halo of a gaming platform with a loyal fan base to make the brand seem more valuable. For example, ActivisionBlizzardMedia research found that fans of *Call of Duty: Mobile* were 3x more likely than non-fans “to think a brand was premium if it was advertised in the game.”<sup>62</sup> Brands can also borrow the halo of a celebrity, relevant influencer, or popular creator to quickly build credibility with a targeted community.<sup>63</sup>

Brands targeting younger players leverage the halo effect to build credibility and increase their magnetism. Industry research suggests that younger players want brands to connect with them about shared interests and values, even if these values are simply aesthetic. The desire to quickly build credibility with a targeted community is the reason why 81% of US brand marketers are open to involving creators early in a campaign and why brands that work with creator-influencers well-known to the target community are likely to advertise that connection.<sup>64</sup> Walmart learned these lessons the hard way with its failed *Roblox* experience “Walmart Land.” Its design did not connect with the target community. The company changed tactics when it launched “Walmart Discovered” in 2023, involving prominent members of the *Roblox* creator community to design purchasable virtual items. As Justin Breton, Director of Brand Experiences and Partnerships at Walmart, explains: “For Walmart Discovered it’s no longer Walmart saying, ‘Here’s a virtual item.’ It’s Walmart saying, ‘We’ve partnered with a creator you know and trust, and this is their virtual item.’”<sup>65</sup>

Adidas recently tested a similar community-oriented marketing strategy that involved borrowing the halos of two well-known creators within the *Roblox* community. One creator designed a \$20,000 one-of-a-kind, Adidas-branded virtual necklace. The other purchased it. The idea was to give players “an authentic way to talk about Adidas” and persuade them to purchase lower-priced Adidas-branded virtual objects.<sup>66</sup>



# 2

## MONETIZATION TREND 2

# Cross-Platform Accessibility & Progression

It's easier to attract and retain players, including youth, when social games are available on multiple platforms and a player's social information is unified. So, it's unsurprising that marketers leverage the cross-platform accessibility and progression. Cross-platform *accessibility* allows players to connect with each other across different gaming systems - e.g., mobile, console, PC, VR headset - allowing a game to signal its commitment to inclusion and meet young people's expectation that "everyone should be able to play" their favorite game.<sup>67</sup> Cross-platform *progression* allows players to save in-game progress and virtual assets to a player account, rather than a console or other kind of device. Players can port their assets and accomplishments across different devices, increasing the attractiveness of microtransactions and making it more likely that players will remain

engaged with the game no matter where they are or what device they have on hand.<sup>68</sup>

From a marketing perspective, cross-platform accessibility and progression increase the efficiency of community-oriented marketing strategies by expanding a game's player base, consolidating player profiles within a gaming ecosystem, and allowing for multi-channel marketing. Social gaming platforms with cross-platform accessibility and cross-platform progression capacity are also attractive to marketers and developers because these capabilities bring players closer to the experience of an interoperable metaverse where players' avatars and goods move frictionlessly across game experiences.<sup>69</sup> Less friction makes it easier for young people to spend time and money in social gaming environments.

# 3

## MONETIZATION TREND 3

# Authenticity

Authenticity, when it comes to advergames and branded content, refers to how well the marketing content or strategy aligns with the interests and values of the player base of the target gaming platform.<sup>70</sup> Younger players, especially, value authentic self-expression and self-presentation in online environments. That's why when it comes to leveraging authenticity as a general tool for generating revenue, the concept is associated with using virtual goods to create customized avatars and in-game spaces (e.g., virtual housing). Over half of Gen Z gamers find it easier to express themselves in a game than in real life, and almost half agree that their in-game identity is "a truer expression of who I am."<sup>71</sup> Authenticity is even more important to Gen Alpha. According to a recent Razorfish study, being their "authentic self" is important to 92% of Gen Alpha.<sup>72</sup>

Providing opportunities for players to express themselves in ways that feel authentic drives purchasing behavior and supports player retention. And from a marketing perspective, supporting

in-game, authentic self-expression increases players' emotional attachment to the game and its community, thereby increasing the effectiveness of community-oriented marketing strategies.

Authenticity is also key to activating the halo effect. Whataburger, a fast food chain headquartered in Texas, took the authenticity lesson to heart when designing its 2024 "Breakfast in Bedwars" tournament for *Fortnite*. "Showing up authentically for our fans is always our goal," explained Miranda Grubbs, Whataburger's senior PR specialist, "and getting to realize what Whataburger would be like in the *Fortnite* universe was a blast."<sup>73</sup> "Bedwars" is a mode in *Fortnite* in which four 3-player teams defend their beds against other teams. Whataburger chose *Fortnite* as a site for its advergame because it learned that many Whataburger fans are also *Fortnite* fans.<sup>74</sup> To appeal to them, Whataburger set "Breakfast in Bedwars" inside a virtual Whataburger restaurant and released a *Fortnite* map that features Whataburger-themed "power-ups" and "speed boosts."

In contrast to Whataburger’s “Breakfast in Bedwars,” video game publisher Bethesda offered *Fallout 76* fans a brand experience that showed little awareness of how fans’ interests and values related to the game: a livestream event featuring Rick and Morty (TV show characters), Ninja (a Twitch streamer best known for playing *Fortnite*),

and Logic (a critically acclaimed rapper). One reporter called the incoherent, boring livestream the “ultimate ‘how do you do, fellow children’ moment.” Fans decried the event as inauthentic and irrelevant, complaining that the celebrity grouping didn’t make sense and blasting Ninja as a sell-out.<sup>75</sup>

# 4

## MONETIZATION TREND 4 Diversity & Inclusion

The marketing-driven push to develop mechanisms that facilitate “authentic” self-expression and self-presentation is connected to the marketing-driven push for diversity and inclusion. Marketers and social gaming platforms recognize that Gen Z and Gen Alpha are demographically more diverse than previous generations, and industry research shows that younger players want avatars that look like them – or that look like who they want to be.<sup>76</sup> As such, more profit is possible with more inclusion.

Marketers and social gaming platforms are keen to target Black and LGBTQ+ players as marketing segments. Industry pays dutiful attention to the problem of exclusion and tends to emphasize the business case for “authentic” inclusion. For example, Robin Gray, founder of *Gayming Magazine*, supports the case for authentic engagement with the LGBTQ+ community by highlighting the size of this community as a marketing segment (11%), its loyalty statistics, and data showing that LGBTQ+ gamers “are likely to spend even more money if they’re engaged with authentically.”<sup>77</sup>

Avatar customization options and culturally-relevant themes are two ways that marketers target communities that are socially-marginalized offline. For example, NYX Cosmetics in partnership

with People of Crypto Lab (POC) launched a Pride-themed brand activation called “The Valley of Belonging” on The Sandbox, a web3 gaming platform that, according to the NYX website, “allows for anyone, anywhere to connect and celebrate diversity and self-expression.”<sup>78</sup> The activation involved NFT avatars featuring non-binary personas, cultural fashion, and prosthetic limbs. The activation was a success. The avatars sold out.

POC is, according to *AdAge*, “a startup that promotes and develops diversity in metaverse spaces.” Its founder, Akbar Hamid, believes that “connectivity and diversity sells.”<sup>79</sup> In 2023, POC partnered with Walmart to launch a hip-hop themed brand activation called “Cultureverse” on the Spatial platform. Cultureverse is billed as an “immersive metaverse experience celebrating Hip-Hop’s 50th anniversary and the transformative power of Black culture.”<sup>80</sup> Justin Breton, Director of Brand Experiences and Strategic Partnerships at Walmart, described Cultureverse as a way “to connect with our customers in spaces and places where they are spending their time.”<sup>81</sup> Cultureverse became the most-visited brand experience on the Spatial platform.<sup>82</sup> Marketing under the guise of inclusion is likely to become more popular as our population becomes more diverse.

# 5

## MONETIZATION TREND 5 Intellectual Property (IP)

By integrating popular characters, stories, or brands (also known as IP) into games, companies tap into existing fan bases, increasing search traffic, boosting organic installs, and activating the halo effect. As

indicated above, IP-driven marketing supercharges community-oriented marketing tactics. IP-driven marketing does this by moving players down the *marketing funnel* cheaper, faster, and more reliably.

The marketing funnel represents the multi-step process by which a consumer goes from being merely aware of a product to becoming a loyal customer who (ideally) promotes the product through word-of-mouth. Moving customers through this funnel cheaper, faster, and more reliably reduces risk and increases profits for marketers and gaming platforms.<sup>84</sup>

***“Straight user acquisition is really difficult. You can’t market to kids, or you shouldn’t market to kids. It’s wrong. You shouldn’t do it. Trying to bring kids into new games cold is really difficult. That’s why we use licenses.”***

**- Nick Button-Brown,  
Outright Games<sup>83</sup>**

Players who already love an IP are more likely to engage with a game based in that IP, because of their attachment to the IP and/or desire to relive or continue experiences with the IP. This emotional connection to the IP can be exploited to draw players in, making them more susceptible to spending.<sup>85</sup> Children in particular are much more likely to form these emotional connections (also called parasocial relationships) to favorite characters.<sup>86</sup>

Moreover, fans of the IP who become fans of the marketing message (whether it takes the form of a game or of branded virtual goods) are likely to promote the product being marketed for free.<sup>87</sup> For example, IP-based games like *Marvel Strike Force* in its “Alliance War” mode encourage players to strategize on social media. This meta-layer increases the game’s “social stickiness,” incentivizing players to

continue to play and invest in the game.<sup>88</sup> If players link their social media accounts to their streaming accounts, all the better for the marketers. This feeds players’ peers into the marketing funnel, too. Young people become more loyal to a brand the more that they are exposed to it on social media and talk with a friend about it.<sup>89</sup>

Authenticity is also key to success when it comes to leveraging IP. If IP usage does not align with fan expectations or does not respect the IP’s lore, then this approach will backfire.

When it comes to driving revenue with IP-based marketing, social gaming platforms can increase monetization options by using character-based mechanics. IP-based, role-playing games offer players the opportunity to become their favorite character. Games that reward players for training their characters (“character progression”) can deepen a player’s emotional attachment with the IP while incentivizing continuous play and driving demand for character-related content. IP-based games may be designed to encourage players to collect multiple characters by giving characters different abilities depending upon the other characters in the squad.<sup>90</sup> These are the mechanics behind the high-grossing character bundles in *Fortnite* for franchises like *Naruto*, *Marvel*, and *Star Wars*.<sup>91</sup>

IP-based games are particularly important to publishers that market games to small children. This is because targeting small children with online advertising is still considered a bridge too far (and also illegal). To get around this problem, publishers make IP-based games that appeal to parents – especially parents who enjoy gaming with their kids.<sup>92</sup>



## MONETIZATION TREND 6 Quantity-Based & Time-Based Scarcity Marketing Tactics

Whether quantity-based or time-based, scarcity marketing involves limiting the availability of a product to make it appear rare, uncommon, or exclusive. Virtual assets marketed in this way are often referred to as “limiteds,” and can be either platform-created or user-generated.

Scarcity marketing leverages the human brain’s tendency to rely on mental shortcuts to process information. In particular, scarcity marketing exploits

a well-documented decision-making bias closely associated with the fear of missing out (FOMO) called loss aversion. Research documenting loss aversion finds that people perceive the pain of losing or missing out as two times worse than the satisfaction of gaining.<sup>93</sup> In addition to loss aversion and FOMO, scarcity marketing also leverages the *scarcity principle*, a cognitive bias that leads us to value things that we believe are rare more highly than

things we believe are common or in high-supply.<sup>94</sup> Moreover, when we are presented with the possibility of acquiring something we value, our brain releases dopamine in anticipation of the reward.<sup>95</sup>

Because of these biases and neurochemical responses, when consumers encounter scarcity marketing tactics, their motivation to buy a product increases along with a sense of urgency. The fear of missing out on an opportunity to obtain something valuable drives quick decision-making. When it comes to adolescents, scarcity marketing exerts a powerful psychosocial grip because it exploits asymmetries in their brain development; around 10, reward-seeking

behaviors increase while impulse control and resisting temptation are not developed until their 20s.<sup>96</sup>

*Fortnite's* constantly-refreshing item shop represents scarcity marketing in action. The use of “seasons,” countdown clocks, and banner ads exhorting players to “Get it now!” are additional examples. Because the last two tactics are particularly effective at exploiting the vulnerabilities of children, *Fortnite's* publisher Epic Games was fined \$1.2 million by the Dutch Authority for Consumers & Markets for using them.<sup>97</sup>

When *Roblox* applied these tactics to user-generated content via its “UGC (User Generated Content) Limiteds” program, sales rose by 15%.<sup>98</sup>



## MONETIZATION TREND 7

# User-Generated Content (UGC)

User-Generated Content (UGC) emphasizes the “community” aspect of social gaming technologies. When content comes from the community, players are more likely to deem it authentic or genuine and regard the platform as community-oriented.<sup>99</sup> UGCs allow players to become part of a “creative community” of players making an “imprint” on the game.<sup>100</sup> As one 11-year-old gamer told *Kidscreen*: “Well, what I like about the metaverse is that anyone can create something. You don’t need to pay in order to create something; you just create it.”<sup>101</sup> For platforms, the allure is, of course, financial: when users create and sell UGCs, social gaming platforms make money without having to create content.<sup>102</sup> Moreover, although UGC programs like *Roblox's* can seem like a path to riches for creator-players, in reality, creator-players must pay *Roblox* upload fees and “publishing advance” fees. Additionally, when an item is sold, creator-players must share the profit with *Roblox*.<sup>103</sup> Few creator-players earn any money at all.<sup>104</sup>

*Roblox* has demonstrated the revenue-generating power of UGCs for itself, and more games are expected to follow its lead, relying upon creator-players to design and build in-game experiences, content, and virtual goods.

Brands can also be UGC creators. In fact, acting as such helps them integrate into social gaming experiences and the community.<sup>105</sup> Sanrio’s My Hello Kitty Cafe experience in *Roblox* exemplifies successful deployment of this strategy. By leveraging UGC, Sanrio not only engages players with familiar, beloved IP but also implements strategies that significantly increase user engagement. For instance, offering a free “Cinnamoroll Hat” as a reward for spending Robux or reaching certain levels boosted player engagement by 100% each month, showcasing the power of branded UGC in driving player interaction.<sup>106</sup>

## Conclusion

These seven strategies drive revenue by helping platforms become socio-commercial environments with the power to appropriate the psychosocial work of adolescents for profit. Unfortunately, because they do so by mapping intrinsic motivations like community belonging, self-expression, and purpose onto external motivators like rewards and fear of exclusion and missing out, they raise important ethical questions about the balance between business goals and the well-being of players as well as legal questions regarding consumer autonomy, decision-making, and choice. ■

# WHAT YOUNG PEOPLE HAVE TO SAY ABOUT SOCIAL GAMING



## Overview

This section presents online focus group data that captures the perspective of young people ages 9-15 who engage with social gaming platforms. We employed a purposive sampling technique, recruiting for a range of embodied perspectives, attitudes, and experiences with social gaming platforms and virtual assets. In our analysis of the focus group data, we uncovered eight themes which provide insight into how young people experience social gaming platforms, what motivates them to spend time on social gaming platforms, and how they feel about what happens there. We incorporate additional insights from the participant observation phase of this project as well as the industry analysis phase to provide context. For the sake of readability, in what follows we will often default to the term young people when referring to focus group participants.

Our focus group participants played a variety of games across different platforms. Seven games were consistently mentioned: *Roblox*, *Fortnite*, *Rec Room*, *VR Chat*, *Meta Horizon Worlds*, *NBA 2K*, and *Call of Duty*. Our participants used a number of different devices to access these platforms, ranging from PCs, to mobile phones, to tablets, to consoles, to virtual reality headsets, which we also explored. However, in this report, we primarily focus on *Roblox* (via PC) and *Fortnite* (via Playstation 5) due to their significant popularity among participants and the insights they provide into player experiences with virtual assets. Importantly, most examples of unfair monetization strategies described below were present across most social gaming platforms, and the strategies were device agnostic, though perhaps more impactful in VR.

These eight themes show the ways in which young people use these spaces to meet developmental needs, most crucially their need for authentic self-

expression, peer acceptance, sense of purpose, and self-exploration. What becomes clear is that young people value these spaces as third places, while at the same time believing that these spaces could be improved by eliminating design-driven coercion, introducing more transparency around virtual currency and microtransactions, and reducing the presence of bullies, scammers, cheaters, and hackers.

These eight themes reveal how social gaming platforms transform adolescents' developmental needs into lures and spending triggers, often ignoring the impact on the platform's community norms and social dynamics. As we explain above (Trend 1), even mechanisms and features that support community development and engagement are ultimately in service of monetization.

### Broad themes from our focus groups include:

Socializing-As-Draw

Exclusion-As-Challenge

Status

Play-As-Work

Having Fun

Self-Fashioning

Fairness

Stealth Advertising Works

# 1

## THEME 1

### Socializing-As-Draw

*“I feel like [playing video games] is a way to bond more with your friends, like, in your life. You can go hang out like, go shopping and stuff like that. But with people you meet online, you can play much more with them and have more fun... in my opinion, have more fun with people.”*

- 15-year-old, LGBTQ+ focus group

Participants consistently cited social interaction as a motivation for spending time on social gaming platforms like *Roblox* and *Fortnite*. Participants appreciated being able to socialize at almost any time with people who lived anywhere. Games that did not facilitate socializing were regarded as less “fun” than games that made it easy to socialize. (See Theme 5.)

Participants especially appreciated being able to socialize as a customizable avatar. As one of our 11-year-old participants explained, customizing an avatar to look “like you normally do” is “really cool” because it helps other players get to know the real you. Other participants described using virtual goods to make themselves more approachable and/or attractive to other players. (See Theme 3 and Theme 6.)

# 2

## THEME 2

### Exclusion-As-Challenge

*“Say they have more money than you in a game. They will... really point that out and make you feel, like, some type of way about it, like, ‘Oh, since you don’t have all this, you can’t be all that great’ or ‘You’re really bad at the game’ or something.”*

- 12-year-old, Black-identifying focus group

Participants consistently named bullies as the biggest obstacle to online socializing (more so than trolls). Bullies targeted players based on perceived wealth, race, and LGBTQ+ identity. Because bullies often focused on an avatar’s appearance, many of our participants learned how to use virtual assets to shield themselves from bullying, harassment, and exclusion. Younger participants were most likely to decry bullying as unfair, though all participants agreed that removing bullies would improve their favorite social gaming platforms. (See Theme 7.)

In social gaming platforms, social exclusion is tied to social status and social status is often tied to virtual goods. (See Theme 3.) Focus group participants told stories in which players with desirable virtual goods (usually the most expensive ones) were treated favorably, but players with “default” or uncool items – such as knockoffs or unattractive gear – were subject to ridicule. But wealth was not the only factor. Black participants who used virtual goods to express their Blackness shared stories of racial harassment. LGBTQ+ players shared stories about being bullied for using their



**Figure 1:** In the “LGBTQ+ Hangout” experience in *Roblox*, an avatar holds a flag emblazoned with a Nazi swastika while participating in a homophobic discussion.

avatars and/or virtual goods to express their gender and/or sexual identities.

Unfortunately, as previous research has documented, the homophobia described by this study’s focus group participants is not uncommon. (See Introduction.) Our researcher also experienced and witnessed homophobia in the form of bullying, as well as gender-based violence. In the *Roblox* experience “Neighbors,” a chat roulette style game in which players interact with each other during visits to in-game homes, one player told our researcher about being violated by another player: “There was this Russian guy who kept grinding up on me and calling me the F slur!” In *Horizon Worlds*, our researcher observed one player telling another: “Why you got a dude voice, but you a girl. You transgender? Uh uhhh.” Even in spaces explicitly designed to signal a game’s commitment to diversity and inclusion, players seeking community were subject to harassment and verbal acts of exclusion. For example, in the “LGBTQ Hangout” experience in *Roblox*, our researcher witnessed players regularly using slurs and telling other players to hang themselves or “Go die.” In the same experience, our researcher observed an avatar carrying a flag with a Nazi swastika while participating in a homophobic discussion, highlighting how virtual assets can further discriminatory behavior. (See Figure 1.)

We heard stories from our focus group participants about racialized bullying and exclusion, and our

researcher experienced and witnessed it repeatedly during this project’s participant observation phase. Racism is especially pervasive in open-ended spaces like the “The Black Cat” experience (available in both *RecRoom* and *VRChat*). “The Black Cat” is a world with several public and private areas visited by tens of thousands of users at any one time.<sup>107</sup> During one visit, our researcher joined a group of users watching youth and adult users drawing on a whiteboard and chatting. One user, possibly posing as a Black person, used the voice chat feature to share racist “jokes,” saying things like “Say snickers without the S!” and “I love the KKK, they are very inspirational.” Using the whiteboard, this user then drew a picture of a KKK member touching a person and said, “This is the history of my people.” Other users drew Nazi swastikas (see Figure 2 in Appendix D). In the *Roblox* experience “Grab,” our Black 12-year-old avatar (the only avatar with dark brown skin in the game at the time) was rejected as a partner for over 10 minutes. (“Grab” is a *Roblox* experience in which players complete an obstacle course while holding onto each other.) When our avatar was finally chosen, the player that chose our avatar said something to us that was bleeped out by *Roblox*.

While diversity-oriented marketing strategies can signal progressive values and motivate platforms and brands to create opportunities for players who are socially-marginalized in the physical world to express their “authentic” selves in a game (see Trend 4), these strategies are not necessarily designed to foster real understanding of and respect for diversity. On the one hand, brands can facilitate self-expression, self-exploration, and a sense of belonging by offering gear for avatars “that helps users best represent their true, virtual selves.”<sup>108</sup> On the other hand, however, such offerings have resulted in identity tourism, digital blackface, and blackfishing.<sup>109</sup>

These practices – identity tourism, digital blackface, and blackfishing – are related anti-Black public practices that trivialize Black identity in virtual spaces while minimizing the harsh realities of racism. Each practice involves non-Black players co-opting virtual goods meant for Black self-expression. These tools are then used to assert power over Black players, “pass” as Black, play out racist fantasies, and/or perform harmful stereotypes for entertainment.<sup>110</sup>

One of our 13-year-old, Black-identifying participants told a story about blackfishing. The experience occurred in a VR game that involved

picking people up. When the participant tried to pick up a bully, the bully “was like, ‘no, don’t touch me, you N word!’” The bully claimed to be Black, though the participant telling the story expressed doubt about that. This story elicited additional stories from other participants about experiencing racialized harassment from players pretending to be Black.

For LGBTQ+ players, customizing their avatars to align with their identity “can make you a target,”

explained a 14-year-old nonbinary participant. Another participant, aged 13, added “Like you could just be wearing, like, I don’t know an LGBTQ flag and someone will be like, ‘Oh my gosh! What are you doing? [. . .] Let me just say some things about you,’ or they’re just whatever, they follow you around and actually antagonize you in the game.”

As multiple participants in our focus groups made clear, seeing yourself in the game if you identify as Black or LGBTQ+ is risky business.

# 3

## THEME 3 Status

***“Me and my friend was playing [Fortnite]. We saw some kid he had like a Renegade Raider, Galaxy back bling, and the rest. We’re like we already knew we was about to get beat, cause he’s obviously played that game a long time spending that much money.”***

**– 14-year-old, 9th and 10th grade focus group**

Participants consistently discussed using virtual goods to signal status. The valence of what they expressed tended to be positive and/or informed by a simple acceptance of “how things work.” As one 13-year-old participant noted, “Brands gonna make money because they’re advertising their brand through the game. Like, if my skin’s wearing Jordans, people might see Jordans and be like, ‘Oh, yeah, that reminds me, I want to buy those.’ But also the game’s making money, because more people are purchasing in-game currency to buy that item. So basically, both sides win.”

What young people have to say about status challenges traditional ways of sorting virtual items into the following two categories: 1) those that are purely cosmetic and 2) those that confer some sort of player advantage. Focus group data, anecdotal evidence, and industry analysis all suggest that virtual assets play a deep role within the status hierarchies established by a gaming platform’s community culture. This means that virtual items, even cosmetic ones, are not simply an expression of personal choice; they are social navigation tools.

Focus group participants explained that in social gaming environments, status is something that can

be conferred, signaled, or earned. “Limiteds” confer the type of status that people tend to associate with luxury goods. Participants talked about how having such items “feels good” and described how other players are attracted to them when they dress their avatars with limited items. Some items, such as “sweaty” skins, signal status. A skin is “sweaty” when it enhances performance (by being slim or by using a color palette that makes it difficult to see). Examples of sweaty skins include the very rare Travis Scott and Renegade Raider skins, as well as the more common Soccer Skins. (See Figure 3 in Appendix D for an image of the Travis Scott skin). It’s worth noting that many players mistakenly believe Soccer Skins are rare precisely because of the type of player who gravitates toward them.<sup>111</sup> Participants were adamant that players *should earn the right to signal status using sweaty skins*, even though sweaty skins are available for purchase and can be bought by anyone with enough money to do so and willingness/time to locate one.

Status cannot always be faked. Some games indicate how many wins players have under their belts, i.e. their rank. Winning is one way that status can be earned through gameplay. Participants expressed admiration for players who have “put in the work”



to learn how to win. “OG skins” (skins that were sold when a game first launched and are no longer available for purchase) can signal this kind of earned status. However, like sweaty skins, this signaling can backfire if the player is unskilled.

Un-customized avatars have the lowest status. Focus group participants told stories about being mocked as “defaults,” “noobs,” and “bacons” when their avatars were not customized. (See Appendix A for definitions of these terms and figures 4 and 5 for images of default avatars in *Roblox* and *Fortnite*). YouTube compilation videos featuring *Fortnite* “defaults” being bullied have millions upon millions of views. One video alone has over 27 million views.<sup>112</sup>

Not any customization will do, however. In *Horizon Worlds*’ “MetDonalds” experience, for example, our researcher witnessed a youth-sounding avatar deriding another avatar’s outfit and size. The bully said: “What’s with the shoes? The ‘fit today? Yeah, ugly! You’ve got a big head, and you’re fat. Hit the gym fatty!” While it’s hard to document, watching this interaction in VR felt far more intense and real than in *Roblox* or *Fortnite*. One of our 11-year-old focus participants, synthesizing comments made by other participants in her focus group, explained that bullies enjoy acting as arbiters of taste: “They’re just like: ‘Hey, how come you would ever purchase that? That’s so like ugly, like, why would you ever do that?’”

The youngest participants in our focus groups were most willing to talk about their negative experiences as “bacons” and “defaults.” (See Theme 7.) One 10-year-old participant told us: “I know some people, like, just can’t afford it. [. . .] But there’s just some people that just don’t care at all. They don’t know what they’re [the player in the default skin] going through and just bullying them for no reason ‘cause they have no money. And that’s basically just a sad thing to know.”

Even though participants often said that they enjoyed “earning” items (see Theme 4), they also agreed that the best items (which were also often the most expensive items) were only available for purchase. This is likely because expensive items attract attention. During the participant observation phase of our research, we observed the attention-grabbing power of rare or expensive items first-hand. Upon purchasing the Korblox Deathspeaker bundle, a coveted set of clothes in *Roblox* that cost 17,000 Robux (over \$200 USD), our 10-year-old account’s avatar had many more interactions with strangers, often validating or congratulating us for having the



**Figure 6:** In the “Murder Mystery II” experience in *Roblox*, another player compliments our Korblox Deathspeaker avatar, saying “I like your avatar.”

avatar using the chat. (See Figure 6.)<sup>113</sup> Other users would inspect our inventory (using a mechanism designed by *Roblox* to allow users to see and easily purchase virtual assets that other people own) in order to validate that our Korblox was authentic (not fake) before congratulating us.

Participants in our focus groups uniformly agreed that customization options make games more “fun.” (See Theme 5.) However, they also emphasized that virtual goods were useful social navigation tools. The distinction between these two purposes matters. If kids are buying virtual goods primarily for fun, supporting them could involve improving financial literacy as well as pushing platforms to provide transparent and accessible information about costs in real currency and a player’s purchasing history. However, if kids are buying virtual goods to fit in or gain social acceptance, these measures alone are insufficient to safeguard their well-being. We must prevent gaming platforms from recklessly exploiting kids’ developmental need to belong, and find ways for kids to experience belonging that do not rely

**“We have just scratched the surface of what it means to be a thriving and monetizing economy in these 3-D immersive experiences.”**

**– Manuel Bronstein,  
Roblox’s chief product officer<sup>115</sup>**

upon consumerism. *Statista* estimates that virtual goods spending in the United States will reach nearly \$22 billion by 2026.<sup>114</sup> How gaming platforms go about realizing this prediction matters to us all.

As the experiences described above make clear, social gaming platforms use a variety of design

features and game mechanics to use status sensitivity to drive in-game spending. Moreover, the strategies these platforms use to hawk virtual goods shape in-game cultures in ways that instill consumerist values that can lead to physical, financial, developmental, and emotional harm.

# 4

## THEME 4

# Play-As-Work

*“Honestly, like, you don’t have to . . . just grind all day to just get all the currency in the game, just to get that one egg, one chest, or one egg. You can just, like, buy multiple if you have enough [currency] or you can just buy, like, different types [of virtual goods] and make it more like more fun, basically because you don’t have to grind all day and all night.”*

- 10-year-old, 4th and 5th grade focus group

Game designers recognize that “work” is an important part of any satisfying gaming experience.<sup>116</sup> Moreover, asking users to invest their time in a platform by customizing their avatars, creating content, inviting their friends to play, or grinding (for example) is a proven way to increase the likelihood that the user will return to the platform. As Nir Eyal explains, humans overvalue their own efforts, prefer to be consistent, and hate cognitive dissonance. These tendencies mean that the more time and effort users invest “into a product or service, the more they value it. In fact, there is ample evidence to suggest that our labor leads to love.”<sup>117</sup>

Focus group participants often described gameplay as a form of labor that yields “rewards” – in essence, virtual goods, virtual currency, and mastery. Their talk about the effects of “putting in the work” to obtain these rewards aligns with Eyal’s insight. For the most part, focus group participants claimed to enjoy “putting in the work” and expressed admiration for others who have evidently done so. They also tended to speak positively about “unlocking” or “earning” virtual assets through gameplay. And even when they described the process of doing so as “grinding,” talk mostly stayed positive.

While none of this is surprising, especially in light of behavioral psychology and wide-spread cultural

messages claiming that gaming prepares young people for the workplace, participants’ perception of gaming as work rather than as play is troubling and provides insight into how gaming can impact young people’s overall well-being. The rewards for the “work” players perform in-game are mostly extrinsic and related to acquisition. Research shows that when people focus on extrinsic rewards – e.g., product acquisition, status, rewards, praise – they are more likely to report poorer moods and unhappiness in relationships.<sup>118</sup> And when children are bombarded with frequent extrinsic rewards, they are less motivated to learn and less likely to persevere when things get hard.<sup>119</sup>

We suspect that the willingness to see gaming as a form of labor feeds into the growing popularity of UGCs. Adolescence is a stage in life when we become more capable of contributing to our communities, and more interested in doing so and having our contributions recognized. Contributing to their communities is one way in which adolescents begin to formulate a sense of purpose.<sup>120</sup> While opportunities to contribute to one’s community can support positive development, when these opportunities are constructed to prioritize commercial interests over developmental needs, their developmental benefits are weakened.

# 5

## THEME 5 Having Fun

*“But I think that it’s more exciting and fun when you do have, like, accessories, and it makes your friends or other people in the game, like, recognizable.”*

– 11-year-old, 4th and 5th grade focus group

Participants in each focus group found the same behaviors “fun”: getting good at the game, expressing themselves via customization, collecting virtual goods, recognizing familiar characters, recognizing friends, and socializing with other players (especially players they already know).

In general, what makes virtual assets fun, according to focus group participants, is what can be done with them. Some participants had fun collecting them, while others had fun using these assets for self-expression. Virtual assets can also “make the game more fun” by enhancing an avatar’s powers or making it more attractive or more similar to others. It’s important to emphasize that while participants enjoyed acquiring virtual assets, either by purchasing them or “earning” them through gameplay, this was rarely because the process of acquisition itself was considered fun.

Freemium games are notorious for making themselves “unfun” at key moments in order to drive microtransactions. This process involves introducing barriers to slow progress during boring parts of a game – e.g., long wait times for upgrades. To remove the barrier, players must engage in a microtransaction.<sup>121</sup>

Another way that freemium games make themselves “unfun” is by leveraging peer pressure to support engagement and retention.<sup>122</sup> Examples include the public display of streaks and time rewards. (See Figures 7 and 8 in Appendix D for examples from *Roblox*’s “Adopt Me.”) As we describe above, tactics like these create the conditions for bullying and peer rejection, experiences which are undeniably “unfun.”

Some games are designed to be almost unwinnable without spending money. For example, in the *Roblox* experience “Dress to Impress” players customize a

model avatar by choosing its skin color, makeup, hair, body shape, and clothing/accessories. The idea is to dress your model to match a theme, such as “Queen of Hearts,” “Greek God/Goddess,” or “Miss Universe.” Once players have finished customizing their models, each model walks the runway. (See figure 10 in Appendix D.) Players then rate the models. As expected (based on what we learned from our focus group participants), “VIP” players who have paid for access to prettier, more culturally-relevant outfits tend to win. As a 13-year-old participant told us:

*In the game, “Dress to Impress,” you basically dress up, and there’s a VIP section that you have to pay for. And usually when you have good items from the VIP, you get ranked higher and voted higher.*

When we played “Dress to Impress,” we observed that the VIP outfits are visible to non-VIPs while they are dressing their models. Yet, non-VIPs are blocked from entering the room containing these premium outfits by a pop up message encouraging them to purchase a VIP membership.

Although participants in our focus groups indicated awareness that games were designed to be “unfun” in order to drive microtransactions, they seemed to regard these design choices as inevitable and necessary to the game’s continued existence. The idea that some profit-making strategies can be reckless and/or exploitative was not top of mind. For example, one of our participants (an avid collector) told us flatly that although he now found *Fortnite* boring, “it’s hard to quit” because he had spent so much money collecting virtual assets. This is the sunk cost fallacy, a decision-making bias in which we prefer to persist in a course of action because we have invested in it even when we know that abandoning

that course of action would be beneficial. A rhyming design adage captures the reason social gaming platforms are designed to activate this bias: “The more they play, the more they pay.” In 2011, John Riccitiello, then CEO of EA Games (the largest video game publisher in the world), used a similar adage “play first, pay later” in a speech explaining to shareholders why the freemium business model is so profitable.<sup>123</sup>

Clearly, gaming culture intertwines “fun” with monetization. These strategies transform young people’s intrinsic desires for belonging and creative self-expression into motivations for spending. By promoting the false notion that consumption is both “fun” and essential for social connection and self-expression, these tactics reinforce consumer-driven mindsets that are ultimately associated with lower life satisfaction.<sup>124</sup>

## 6 THEME 6 Self-Fashioning

*“Well, I feel like on virtual platforms you can kind of express yourself in ways that sometimes you can’t in real life. Like a lot of people, you know, can’t dress or look the way they want in real life. And when you have customization options on online games, you can present yourself as what you’d like to be, like, viewed as.”*

– 14-year-old, LGBTQ+ focus group

At the center of social gaming experiences is the use and customization of a first-person avatar. As mentioned above, having fun and socializing in these spaces is important to participants. Participants facilitate both fun and socializing using virtual assets to fashion a “self.” (See Theme 2 and Theme 3.)

Participants expressed a desire to use virtual assets to look “cool” or express their current mood, personal style, how good they are at a game, and fandom. But, for the most part, these efforts toward self-expression and self-presentation were oriented toward being perceived as someone worth interacting with. (See Figure 9.)

The desire to fashion a virtual self that feels authentic to oneself and attractive to others motivates young people to explore social gaming environments. Young people know this, and so do marketers. That’s why it’s important to understand how marketers insert themselves into this process. We found that most, if not all, of these platforms use developmentally-manipulative tactics to sell virtual assets, treating young people more like easy-to-exploit market segments than people engaged in the important psychosocial work of identity formation and development. (See Theme 3.)



**Figure 9:** Our 10-year-old *Roblox* account’s avatar, equipped with cargo jeans (60 RBX), butterfly shirt (5 RBX), cozy sweatshirt (free), Adidas Black Campus Shoes (150 RBX), and cute penguin hat (79), plus custom skin color (free) and braided hair style (70 RBX).

# 7

## THEME 7 Fairness

*“It’s not like ‘Oh, dang now other people can get [a virtual asset]. And I’m, like, not the only one.’ It’s not like that. I’m happier when other people can get it, because then it’s fair for everyone [...] And now it’s more fun for them, now that they have it.”*

- 11-year-old, 4th and 5th grade focus group

*“They [the gaming platforms] only care about the money, and then they just charge a lot just so they can get it, and they make everything hard to get where you have to pay for it.”*

- 13-year-old, Black-identifying focus group

Participants exhibited a strong sense of fairness, especially when it comes to microtransactions, virtual currencies, hacking, cheating, and bullying. The concept also showed up in talk about identity-based discrimination.

Participants of all ages called microtransactions, pay-to-win mechanics, and lack of transparency around virtual currencies unfair. They’re not wrong, of course. Each microtransaction may seem inconsequential. However, these expenditures can add up quickly. Pay-to-win mechanics attempt to exploit the desire to succeed or simply have fun, depending on the overall design of the game. Compounding the risks posed by these features is the lack of transparency surrounding virtual currencies. When we asked participants to explain the dollar value of Robux and V-Bucks, they provided a range of answers. They knew, however, that this was because the value of these currencies isn’t stable. This instability makes it difficult to track spending in a meaningful way. These features heighten the risk of financial harm for players by obscuring the financial impact of purchasing behavior, and encouraging on-going, often impulsive, spending.

Younger participants were particularly focused on bullying and harassment based upon perceived wealth and/or status. They were more likely than older participants to express opposition to inequity and to directly call for fairness. Younger participants lamented the expense and rarity of “limiteds” and wished that more players had them because these

items conferred status that many regarded as essential to feeling a sense of belonging in these gaming communities. They expressed sympathy for players who experienced bullying. Some said that they would explain to bullies that bullying someone for having a “default” avatar or for having an avatar that indicated in-game poverty was “not fair.” The reasoning: we’ve all been a default and none of us know why the bullied player does not have Robux. Others expressed sadness over the idea that some people “just really don’t like people who have no money.”

Perhaps this is why younger participants expressed admiration for creators who sold inexpensive knock-offs (a.k.a. fakes or dupes) of expensive virtual assets. In general, younger participants did not think that players who purchased fakes should be bullied for doing so. Even older participants agreed. In fact, most participants seemed to regard purchasing fakes as a fair enough way to hide in-game poverty (even though they also indicated that said strategy seemed destined for failure, as we discuss below).

Disguising one’s status as a “have-not” to avoid bullying in these games is often impossible. This is because while bullying is a problem for players, it is (unfortunately) a boon for platforms seeking to encourage the purchase of virtual assets. *Roblox*, for instance, generates most of its revenue by selling Robux, the platform’s virtual currency. However, it also takes a 70% cut from the sale of community-created virtual items (UGCs). So, the more expensive

the item is, the more money *Roblox* earns from its sale. Given these incentives, it's no wonder that *Roblox* allows players to inspect each others' virtual asset collections and see how much players paid for each item. This feature allows the platform to leverage persuasion dynamics associated with social influence to drive profit. For example, if a player's collection includes a "Dominus" (helmet) that cost only \$5 USD any player who bothered to inspect the collection would know that that Dominus was fake. A real "Dominus" would cost a player over \$100 USD. Participants told stories about players who were publicly shamed for wearing a fake Dominus. Other games allow players to signal their expenditures using symbols next to user names indicating premium membership or VIP labels as in *Roblox* experiences like "Dress to Impress."

Some player-created experiences in *Roblox* seem designed to close the gap between the "haves" and the "have-nots," and in these experiences, players who are "poor" are more likely to claim that identity. In the *Roblox* experience "Adopt Me" (a game in which in-game text chat dialogue revolves around virtual assets), players will say things like, "Do you have any free pets? I'm poor!" to try to get other players to give or trade virtual assets. In the *Roblox* experience "PLS Donate," players create and customize donation booths. A leaderboard in the experience ranks top donors and donations, some of whom have donated hundreds of millions of Robux. (See Figure 12 in Appendix D.)

Older participants were more interested in the concept of emotional resilience than fairness. When older participants talked about bullying they indicated that players can choose not to be affected by negative experiences or provocations. The underlying assumption seemed to be that emotional resilience and detachment can protect a person from stress and harm, making adverse situations less significant. Unfortunately, this assumption is based upon a misunderstanding of resilience. Resilience is not something that people have or don't have; it is not a matter of willpower. Rather, resilience is built over time, starting in infancy, and requires protective factors in the form of safe, stable and supportive relationships, environments, and experiences.<sup>125</sup>



**Figure 11:** The sign on a user's donation stand in "PLS Donate" reads, "saving robux (im poor pls help)." The user, stationed nearby is saying "i have 0 lollll can someone dono me pls."

When young people spend more time in toxic online environments than they do in supportive ones, be they offline or online, they undermine their ability to develop resilience. Indeed, research links more time gaming to greater exposure to online harassment, which was linked in turn to higher levels of psychological distress, particularly among Black players.<sup>126</sup>

It's not surprising that older participants preferred talking about their negative online experiences as something they strive to "get over," given that teenagers tend to avoid the "discourse of victimhood, often denying the significance of distressing experiences with reproving tales of others."<sup>127</sup> That said, despite de-emphasizing the impact of bullying and harassment on their well-being, older participants joined younger participants in calling for systems-level solutions to bullying and harassment including better moderation, more responsive reporting systems, improved tools for blocking offenders, and more alternatives to Player vs. Player (PvP) games, which they believed encouraged anti-social behavior.

# 8

## THEME 8

# Stealth Advertising Works

*“Sometimes when I log on to Gorilla Tag or Minecraft there’s just these, like, little ads that are popping up. Like there’s some about, like, clothing like Shein and all that stuff. [. . .] And yeah, there’s a lot of advertisements in some of those games.”*

- 10-year-old, 4th and 5th grade focus group

Focus group participants thought of marketing and advertising as inherently intrusive and overt, and they seemed to have a limited understanding of brands (which is what the science of child development would predict). When directly asked about their experiences with “brands,” most participants had nothing to say. However, when participants were asked if they’d seen specific brands – like Nike, Balenciaga, or Marvel – in a social gaming platform, they all agreed that they had seen brands inside the game.

When asked about the kinds of advertising they see in their favorite games, participants consistently described ads that would fall under the category of “around-the-game” ads. Examples of this form of advertising include pop-up ads that appear at the start of a game or when the game is paused (interstitial ads) and ads that promise rewards for watching (rewarded video).<sup>128</sup> Less intrusive, but still recognized as ads by some focus group participants, are ads that appear in the game world during play – e.g., virtual billboards and product placements. These in-game ads may be “dynamic,” meaning that they are inserted and removed from games in real time. Placing these dynamic in-game ads often involves an auction on an in-game ad exchange or a partnership with an adtech gaming platform. In-game ads can also be “static,” meaning that they are hard-coded into the game. All players see them – even those players lacking an active internet connection.<sup>129</sup>

Both around-the-game ads and in-game ads are common. However, because so much emphasis has been placed on Gen Z’s and Gen Alpha’s aversion to intrusive advertising, marketers targeting younger players have begun to turn to more “organic” marketing strategies like community building,

commenting on social media posts, social search, and immersive ads.<sup>130</sup>

So-called immersive ads include sponsored game content, cross-over content (collabs), and advergames. Industry research suggests that young people “are likely” to meet these immersive forms of advertising “with curiosity and interest” if these ads appear “thoughtful” and/or “cool.” Over half (54%) of young people surveyed said they would talk about a brand with their friends if they saw that brand “doing something cool in a game.” This same study also found that 31% of young people who experience “engaging” and enjoyable branded content inside a game they already like are apt to ask their parents to buy something from that brand, while 25% are willing to buy the product in question for themselves. When it comes to immersive ads targeting younger players, industry insiders claim that the keys to success include prioritizing engagement over awareness, facilitating social connection, offering customizations, and choosing the right platform for the brand.<sup>131</sup>

*Fortnite* is a leader when it comes to deploying immersive ads (collabs). Participants in our focus groups consistently expressed enthusiasm for *Fortnite*’s collabs, especially the ones that involved musicians. Their enthusiasm centered less on the experience itself and more on the exclusive virtual assets associated with these events. Many spoke highly of the items associated with collabs, viewing them as potentially-prized parts of their in-game collections that they were “for sure” going to spend money on. Some even expressed regret over missed purchasing opportunities.

Participants recognized how scarcity marketing influenced their emotions and purchasing behavior,

but didn't name scarcity marketing tactics as marketing. Instead, they viewed scarcity as natural and their reaction to it as a personal experience. For example:

*I find that when things are limited it makes the... like the rush about them, I guess, like the general excitement that they're there more intense. Because if something's not limited, people generally are just like, 'Okay, well, I don't need to buy this now. I can buy it whenever I want, if I decide to later.' But if it's limited, there's, like, a lot of pressure to get it now. Because what if it turns into a really valuable item in the future. What if you decide later on that you should have bought it and you can't? You know it's like there's this sort of, like, pressure to stay on top of, like, the, like, best items or whatever. - 14-year-old, LGBTQ+ focus group*

Scarcity marketing tactics (Trend 6) leverage developmental vulnerabilities around impulse control and decision-making, as well as the desire to experience social rewards (a desire which adolescents feel more strongly than adults). As such, they are unfair, even when they go unrecognized as such by their targets.

Some participants weren't sure how branded content arrives in platforms like *Roblox*. For example, one of our 11-year-old participants declared that she didn't "think like *Roblox* has ever, like, advertised Nike or anything." However, when this same participant was asked "who makes money" from branded virtual assets, she answered "both" the brand and the platform, and offered a detailed and reasonably accurate explanation:

*There's like a bajillion people that play Roblox. Like if all those people saw the merch in Roblox and would have been like 'Oh, that's pretty cool. I wonder how it would look in real life...' They might go and, like, buy it. See how it looks, or might even visit the store. And I think that would help them [the brand], like for having their image in, like, such a big game like Roblox. And it might help Roblox too, cause it's . . . cause they might get fans of that like game, or fans of that other brand to start playing Roblox.*

This participant clearly understands that brands can make games and virtual assets that entice *Roblox* players to buy something from that brand and/or build a relationship with it. However, the picture she paints is a happy one in which the interests of all stakeholders align: the *Roblox* player gets something

"cool," the brand gets a new customer, and *Roblox* gets new players. In reality, of course, this is a best case scenario. As we hope this report makes clear, what *young people* want from *social gaming platforms* is often misaligned with what *social gaming platforms* want from *young people*.

The science of child development offers an explanation for the seeming dissonance between the participant's two answers. Kids older than age eight can recognize ads as ads, especially if that ad is accompanied by contextual clues to its commercial identity – e.g., "We'll be back after these messages from our sponsors" or some sort of kid-friendly disclosure. That said, research shows that most people, especially young people, do not notice or remember advertising disclosures.<sup>132</sup> Moreover, children and adolescents have difficulty defending themselves against marketing manipulation because they are still developing the information processing skills and emotional control needed to critically evaluate an ad's persuasive intention.<sup>133</sup> As the APA explains: "mature persuasive intent comprehension involves not only the recognition that the advertiser has a perspective different from the viewer and that advertisers intend to persuade their audience to want to buy their products, but also that such persuasive communication is biased, and that biased messages must be interpreted differently than unbiased messages."<sup>134</sup> Moreover, brands can derail older children's (and even adults') cognitive defenses by using collected data to "personalize" ads in ways that target their insecurities, by activating the halo effect (as discussed in Trend 5), and/or by leveraging parasocial relationships.

Given what we know about young people's susceptibility to ads, it should be no surprise that industry research suggests that brands seeking to form deep, long-lasting connections with consumers are advised to reach them before the age of 16, even those brands that "are non-endemic to the kids' market."<sup>135</sup> The difficulty young people face when evaluating the persuasive intention of a commercial message, particularly when that message is communicated through a beloved character and/or the texture of their experience, makes it easier for marketers to maintain the illusion that they care about gaming communities for genuine reasons, not just for profit. It also limits players' understanding of IP-based and brand-based collaborations as a form of marketing. Moreover, when marketing is assumed to be overt, predatory inclusion can easily appear laudable.



## Conclusion

Social gaming platforms easily blur the lines between gameplay and marketing. The platforms use a variety of lures and triggers – IP, FOMO (scarcity marketing), peer pressure, social comparison, observational learning, and intrinsic motivations – to market to players. Just ten minutes spent on *Roblox* or *Fortnite* offers clear examples of these. A short conversation with young people reveals their impacts.

Adolescents cannot reasonably avoid the unfair manipulation they experience in social gaming platforms. Players turn to these games to find community. However, the marketing tactics that shape the environment in which the community operates bind community belonging to consumption. The sense of community becomes a tool for extracting value from players rather than something that benefits them. ■

## BROAD THEMES AND EXEMPLARY QUOTES

1

### Socializing-as-Draw

*“I’ve been into *The Last of Us* for a while, but I have a lot of friends who got into it specifically because of, you know, like the representation shown in that game, and I mean, you stay for other stuff, like it’s a good game, but having, like those aspects be kind of advertised and talked about can certainly, like, flock a certain group of people to the game.”*

- 14-year-old, LGBTQ+ focus group

*“And then when I tried playing it by myself, it just - I just wasn’t having a very good time, but when I was playing it with my friends, then we were all having fun with it.”*

- 15-year-old, 9th and 10th grade focus group

2

### Exclusion-as-Challenge

*Participant 1: Yeah, but like in voice chat games, like, people [. . .] put on a darker skin tone so they can like-*

*Participant 2: Troll!*

*Participant 1: Yeah.*

*Participant 2: Yes, they’re pretending to be Black, and then they start being racist.*

- 12-year-old and 14-year-old, Black-identifying focus group

*“Let’s say, like, you have a specific avatar. There’s some games - like more PvP based games - where, like, this person chases you around, and, like, repeatedly kills you, so it makes it hard to enjoy the game.”*

- 15-year-old, LGBTQ+ focus group

3

### Status

*“So, yeah, like, if you have more expensive stuff, like, people are gonna treat you differently.”*

- 14-year-old, 6th-8th grade focus group

4

### Play-as-Work

*“Basically I had to work to get enough votes to get on this certain level for the certain rank, and after a while I accomplished that goal.”*

- 12-year-old,  
Black-identifying focus group



## BROAD THEMES AND EXEMPLARY QUOTES

5

Having Fun

*"It's kinda dumb that people, like, cheat and stuff because it just kinda takes all the fun out of the game."*

- 12-year-old, Black-identifying focus group

6

Stealth Advertising Works

*"I don't think, like, Roblox has ever, like, advertised Nike or anything."*

- 11-year-old, 6th-8th grade focus group

7

Self-Fashioning

*"Like a lot of people, you know, can't dress or look the way they want in real life. And when you have customization options on online games, you can present yourself as what you'd like to be, like, viewed as."*

-14-year-old, LGBTQ+ focus group

*"[I]t's like you, you're spending your time grinding on a level and then, and then someone who already bought everything in the game just comes over and kills you."*

- 13-year-old, Black-identifying focus group

8

Fairness

*It kind of feels like, like there's always like people . . . just like . . . always bad people in the world that just really don't like people who have no money or just don't have enough or can't get it. And it's just really, I don't know, like, it's really a very sad thing to know. And it's really just really bad for people to be like that. It's very, it's very frustrating."*

-10-year-old, 4th and 5th grade focus group



# HOW SOCIAL GAMING PLATFORMS EXPLOIT AND HARM YOUNG PEOPLE

Our findings validate the common claim that socializing and self-expression are key reasons why young people engage in XR spaces. This is not by accident. Social gaming platforms like *Roblox* and *Fortnite* deliberately draw young players into these environments and use sophisticated strategies to influence their behavior once there for the sake of profit.

The cultural and individual impact of these manipulative monetization strategies is especially troubling from a developmental perspective. Adolescence is a stage of life when our heightened sensitivity to our status (or perceived status) in our social environments intensifies feelings of exclusion and disrespect and drives us to seek social approval. Research suggests that adolescents actively seek ways to earn approval from the people around them because positive attention feels more rewarding during adolescence than at other times in our lives.<sup>136</sup> Social gaming platforms deploy design features and game mechanics that exploit

status-sensitivity and adolescents' developmentally-driven desire for approval for profit, making these platforms' minimal efforts to reduce racism, homophobia, and other community toxins seem hypocritical at best. Additionally, the tension between genuine self-expression and commercially-driven customization can lead to cognitive dissonance for young users who may struggle to meet their desire for authentic community and self-expression within the context of a socio-commercial environment designed to prioritize profit over their developmental needs for self-understanding, personal growth, and supportive community.

The industry refers to the metaverse's monetization practices as a grand "experiment," yet this experiment has had profound effects upon young people.<sup>137</sup> This section examines these effects, detailing the risks of harm posed by conducting the psychosocial work of adolescence in today's social gaming environments.

## 1

### HARM 1

**Young people face constant design-driven pressure to buy virtual goods that work by exploiting adolescents' developmental vulnerabilities and needs.**

Virtual assets play a pivotal role in the social experiences that young people have on social gaming platforms. As underscored by stories shared by our focus group participants, young people turn to platforms like *Roblox* and *Fortnite* for social interaction and community and use virtual assets to fashion a virtual self that feels authentic to them and attractive to others. Unfortunately, most social gaming platforms are

not innocuous environments. They inflict harm on adolescent players through exploitative profit-maximizing strategies.

As discussed in this report's introduction, in order to develop into thriving adults, adolescents need time and space to practice authentic self-presentation and self-expression. Social gaming platforms understand this on some level, monetizing these developmental needs by positioning purchasable and earnable

virtual goods as necessary for customizing avatars and in-game spaces, like the houses in the *Roblox* experience “Adopt Me.” (See Figure 8 in Appendix D.) Minimally-monetized physical environments like public parks, for example, don’t pressure young people to purchase products in order to express themselves. Recklessly-monetized virtual environments like *Fortnite* and *Roblox* turn self-expression into a purchasable product, valued more for its appeal to others than for its personal meaning. By making spending time and money necessary to authentic self-expression and using design features that fuel social comparison and a sense of urgency, social gaming platforms undermine self-expression and ultimately self-acceptance in the name of profit.

The work adolescents put into acquiring virtual goods for the sake of customization has the added benefit (from the perspective of social gaming platforms) of producing a “sunk cost” effect that keeps players coming back to the platform.<sup>138</sup> Unfortunately, the risk of developmental harm rises with increased time spent in recklessly-monetized environments. (See Harm 4.)

Scarcity marketing is a prime example of reckless monetization. Quantity-based and time-based scarcity marketing tactics, which work well on people of all ages, exert an especially powerful force on adolescents. This is because adolescents are especially sensitive to social rewards and are still developing their capacity for impulse control.<sup>139</sup> Scarcity marketing tactics increase the perceived value of virtual goods and activate FOMO. Social gaming platforms deploy scarcity marketing tactics via design features like ever-changing item shops and countdown clocks to boost engagement and drive purchasing behavior. (See Trend 6.) Design features like these also increase community awareness of the limited availability of an item. Public awareness of an item’s limited availability can increase the motivation to buy by supporting the belief that owning the item in question can increase a player’s social status in the game.

Social gaming platforms promote social comparison by design to increase the social pressure players feel to consume. Social comparison involves measuring self-worth relative to others. It fuels competition in community cultures. Design features that promote social comparison allow players to inspect one another’s profiles, view prices for virtual items, and view and climb leaderboards that rank performance and spending. (See Theme 3.) In a social environment

where prompts to social comparison are prevalent, relationships are likely to revolve around who has what. Players with more virtual assets – be they currency or goods – can more easily attract “friends” than players who have very little. Indeed, focus group participants told us that owning limited or rare items confers popularity, coolness, and/or recognition as a good player. For those with the means to do so, the temptation to buy friends by supporting their efforts to obtain limited items can be irresistible. As one mom told *Good Morning America*, “Because his friendships were kind of trying at the time, and he was feeling a bit outcast, he was purchasing Robux and giving gifts to his friends.”<sup>140</sup> Buying to belong is not unusual. Young people have spent upwards of \$1,000 on *Roblox* to avoid experiencing exclusion, harassment, and FOMO.<sup>141</sup> Some may use the currency to buy friends. Others may use it to buy status. It’s important to remember that although manufactured by design, the social pressure to spend that young people experience within these environments has led to real and significant financial harm.

Gaming environments like *Roblox* have the potential to be places where one’s socioeconomic status is irrelevant. Instead, the opposite is true. In-game cultural norms in *Roblox* give players with more virtual assets power over players with fewer assets. In *Roblox* experiences like “PLS Donate,” public chats place conversations about who is “poor enough” for charity front and center. Meanwhile, players watch asset-rich players determine who deserves charity and who deserves to be bullied for begging. (See Figure 12.) While we certainly do not regard private chat features as the solution, we need to emphasize that public bullying normalizes bullying as an acceptable social behavior.

The harms inflicted by the kind of manufactured social pressure described above carry over offline. In a YouTube video with over four million views (to date), a kid talks about being physically beaten by classmates for wearing default skins in *Fortnite*.<sup>142</sup> Teachers have witnessed status-oriented language from *Fortnite* spill into the physical world. “On more than one occasion I heard the kids refer to one another as a ‘default,’” Paul Towler, a middle school teacher at a private school in the US, recounted to a reporter for *Polygon*. “At one point they started to use it just as a generic insult both in and out of the classroom.” Parents interviewed by *Polygon* expressed heartbreak over what their kids tell them about the importance of customized avatars for their social lives.<sup>143</sup>

Brand “collabs” and IP-driven marketing, especially when combined with community-oriented marketing tactics, can increase the pressure young people feel to buy branded products to show loyalty. Kids might not even be aware that they are being targeted as fans. The seamless integration of these brands into the gameplay experience creates a powerful, almost subconscious connection between the player and the brand. Even kids who understand that collabs are a form of marketing, may not fully grasp how ads can influence internal physiological states and decision-making.<sup>144</sup> Moreover, the emphasis on brand loyalty and consumerism in social gaming environments rife with brand-based marketing messages transforms brand alignment from a preference to a social necessity. When kids believe that demonstrating alignment with an IP they no longer enjoy is the only way to avoid social exclusion, their ability to express themselves authentically diminishes, leading to a sense of self-alienation.

Ultimately, social gaming companies intentionally manufacture social and emotional pressures in order to pad their bottom line. Technology that parents and children believe provides safe spaces for play and socializing is all too often designed to reinforce biases and offline inequities already faced by some children. Those who can afford to purchase expensive virtual items can acquire social status while those who can't may be further marginalized during a time of life when peer acceptance is particularly crucial to mental health and overall well-being. What's more, children from resource-constrained families are already more at risk for mental health issues like depression and toxic stress.<sup>145</sup> Prolonged exposure to the kinds of marketing practices described above can distort how young people perceive social status and understand self-worth in ways that can limit self-acceptance and make it difficult to form the supportive relationships that are essential to mental health both online and offline.



## HARM 2

### These design-driven pressures result in significant financial harm for some young people and their families.

Most virtual items cost less than a cappuccino. That's why purchasing them is called a microtransaction. But these small purchases can add up quickly. Media outlets have reported multiple cases where young people have spent thousands of dollars in microtransactions without their parents' knowledge.<sup>146</sup> In one such instance, a 10-year-old player spent \$7,200 on *Roblox* over the course of two months, despite her parents having set a spending limit.<sup>147</sup> A 2019 leak of Meta's internal documents revealed that the company encouraged “friendly fraud” to maximize profits, telling game developers to implement mechanisms that let children spend money without their parents' approval. The mechanisms these developers used were extremely successful. In fact, one 15-year-old spent \$6,500 in just two weeks. In many cases, the children didn't realize they were spending real money.<sup>148</sup>

Compounding the risk of financial harm, as the Consumer Financial Protection Bureau (CFPB) has reported, most platforms do not offer refunds for accidental or unauthorized spending. And some platforms respond to parental complaints about

their child's accidental or unauthorized spending by simply shutting down the account associated with the complaint.<sup>149</sup>

Unfortunately, gaming platforms tend to take a “buyer beware” approach to financial harm, placing the burden of avoiding it on players (or their guardians).<sup>150</sup> Few offer the same protections given to consumers by banking and payment platforms involving real money – despite the fact that (like traditional banking and payment platforms) gaming platforms allow consumers to purchase and store valuable assets. For example, most gaming platforms do not allow players who convert real money into in-game currency to reconvert in-game currency into real money. Nor do most platforms protect against financial losses due to scams or theft or provide redress when virtual assets are unilaterally lost or revoked by the platform.<sup>151</sup> Such evident indifference to financial harm is especially chilling given that the industry has a history of inflicting financial harm on families by manipulating children into overspending real money.<sup>152</sup>

A primary driver of overspending is virtual currency. Examples of virtual currencies include *Fortnite's*

V-Bucks and *Roblox*'s Robux. Players can purchase or earn a game's virtual currency and use it to purchase virtual goods and services in that game's marketplace. Like casino chips, virtual currencies disconnect players from the real money value of their spending. The disconnect between the value of the virtual currency and the value of real money can encourage more in-game spending by decreasing the significance of using virtual currency.<sup>153</sup> As Save Share Spend's Nathan Dungan, a Fairplay board member, explained to the *Wall Street Journal*, "The danger with these purchases is that money turns magical. Children's brains can't process these virtual transactions because it's not tangible to them."<sup>154</sup> By introducing pricing variety, bulk discounts further increase the difficulty of determining the real-money value of virtual currency. For example, 1000 *Fortnite* V-Bucks cost \$8.99 USD (111/\$1), but 13,500 V-Bucks cost \$89.99 USD (150/\$1), with increments in between.

*Roblox* adds additional layers of confusion by introducing secondary and tertiary currencies. For example, in experiences like "Blade Ball," players use real money to buy Robux, which can be used to purchase some virtual assets as well as seasonal secondary currency. During "Blade Ball's" "Summer Clash" season, players could use Robux to buy "Shells," which they could then use to buy virtual assets or to buy a tertiary currency, "Octo Coins." "Octo Coins" could also be used to buy (sometimes exclusive) virtual assets.<sup>155</sup> With three layers of separation from real money, and various exchange rates, a virtual currency's real money value cannot be calculated and overspending becomes predictable.

Increasing the risk of financial harm is the fact that players can rarely choose how much virtual currency to purchase. Virtual currencies are usually sold in bundles, the size of which is determined by the gaming platform. To maximize profits, gaming platforms size the bundles in ways that leave players with a small amount of virtual currency after purchasing a virtual asset.<sup>156</sup> In *Roblox*, for example, 400 Robux (\$4.99) is the minimum amount available. Players wishing to purchase a hairstyle costing 250 Robux, can't just purchase 250 Robux. Instead, they must purchase 400 Robux, and are left with 150 Robux after purchasing the hairstyle. If they wanted to purchase a second item for 250 Robux, they would need to purchase 400 additional Robux. As the Consumer Financial Protection Bureau explains, this misalignment between item pricing and bundle size triggers a "vicious cycle"

where consumers buy more bundles in order to spend leftover currency. The "cognitively taxing" conversion rates these platforms set up supercharge the effect, "encouraging snap decisions as opposed to deeper thinking."<sup>157</sup>

Another driver of overspending are design features like roulette wheels and containers offering variable rewards – for example, loot boxes like the wrapped presents in "Adopt Me." A report by the Norwegian Consumer Council (NCC) explains how variable rewards can condition players to spend more money and time on a platform than they would have otherwise. The allure lies with the unpredictability. If the first container you open is missing what you want, you wonder if what you want might be in the next one. Or the next one. Or the one after that. If you lose the first time you spin the wheel, you might spin again in hopes of winning. And again. And again. To ensure maximum effect, a platform needs to make trying again easy and instant. Just like slot machine levers and bells, monetization strategies involving variable rewards exploit our biological reward systems. We become prey to the gambler's fallacy, the fantasy that "an unlucky streak means that the desired reward must be right around the corner."<sup>158</sup> In fact, recent research found that spending on loot boxes as a youth can lead to gambling problems later in life.<sup>159</sup>

Monetization strategies involving variable reward schedules are especially unfair to adolescents because they take advantage of their underdeveloped capacity to assess risk and delay gratification.<sup>160</sup> Research shows that young people, especially adolescents, are more prone to impulsive behaviors and are less likely to fully comprehend the long-term financial implications of their actions.<sup>161</sup> This makes them prime targets for manipulation strategies involving variable rewards and confusing exchange rates.

Some social gaming platforms enhance the manipulative power of loot boxes by using a tactic known as a "dynamic balancing," "segmentation," or "manipulated randomness." This tactic involves using data collected during gameplay to manipulate the odds that your loot box will have what you want in it. South Korea's Act on Consumer Protection in Electronic Commerce recently levied an \$8.9 million USD fine against Nexon, the developer of a globally-popular social gaming platform called MapleStory, for deploying this practice.<sup>162</sup> Unfortunately, the practice is wide-spread.<sup>163</sup>

Some social gaming platforms use a similar, data-driven tactic to manipulate potential “whales” into overspending. The term *whale* comes from the casino industry, and refers to big spenders.<sup>164</sup> Once a gaming platform identifies a player as a potential whale, the platform will use behavioral, biometric, and personal data to both manipulate the price of the loot box and to manipulate that player into purchasing it. As the CFPB reports: “Where data shows that a player is willing to participate in microtransactions or pay more money to keep playing a game, the game will increase their prices and decrease the chances of earning rare assets.”<sup>165</sup> We believe that consistent enforcement of regulations like COPPA would help address this problem. At the same time, we realize that current regulations leave teens over 13 unprotected and that games are intentionally designed to be “unfun” for children under 13, nudging them to misrepresent their age when creating an account.<sup>166</sup>

The sunk cost fallacy, as we have discussed, increases the compulsion to continue spending time and money on a game, especially when players have already spent a considerable amount. This fallacy encourages players to believe that if they keep playing and spending, they will somehow make up for the time and money they’ve already spent. Research shows that adolescents are particularly susceptible to this cognitive bias, especially if they are part of a resource-constrained household.<sup>167</sup>

Our focus group participants attested to the difficulty of walking away from a game after sinking considerable time or money into it. Even when young people recognize they’ve spent too much, the perceived value of their accounts keeps them hooked. One 14-year-old participant told us that although *Fortnite* no longer interested him as much as it once did, he still continued to play. “I’ve spent a lot of money on *Fortnite*. It’s kind of bad,” he said by way of explanation. This same participant justified his spending as an investment: “it makes your account worth more.” He told us that he had sold one of his accounts for “like a thousand dollars” on the gray market.

Most of our focus group participants did not regard their accounts as saleable commodities, and instead understood the overall value of their account as a status marker. While our focus group participants seem to have informally assessed their accounts’ value, there do exist a number of third-party sites and instructional videos for valuing accounts.

*Roblox* offers experiences like “Account Value” that allow users to “See the value of your *Roblox* account!”<sup>168</sup> Valuable accounts offer both social and economic capital. However, gaming culture encourages players to assess social capital in terms of economic capital. (See Theme 3.) This cultural norm likely emerges from design features that activate social comparison and other forms of social pressure (like allowing players to inspect the value of other players’ assets). Features like these invite players to assess the value of their accounts – and their power to confer status – in monetary terms. Since these tools for comparison are frictionless and conspicuous, they discourage attempts to assess the value of an account in non-monetary terms (like the extent to which their collection represents their authentic sense of self).

Young people’s emphasis on the monetary value of their accounts speaks to the context that young people are growing up in – a world filled with financial uncertainty catalyzed by political unrest, systems of oppression, and climate change. According to an industry guide, Gen Alpha’s (currently ages 0-14) parents are preoccupied with finances and want their children to be financially successful.<sup>169</sup> It’s no wonder that “grind culture,” where young people “celebrate or even fetishize constant activity at all costs,” is prevalent.<sup>170</sup>

An October 2024 Common Sense Media report found that young people feel less career and financial pressure when gaming than when using social media. However, our focus group findings indicate that young players experience continuous pressure to generate “valuable” accounts by keeping up with limited offerings. To claim that social gaming spaces serve as an escape from financial and career pressure overlooks how social gaming platforms that use the monetization and engagement-maximizing strategies described in this report encourage social comparison and reinforce grind culture.<sup>171</sup>

Social gaming platforms make spending money easy and resisting spending difficult. Design and marketing strategies exploiting developmental needs and vulnerabilities combine neurochemical-reactions, cognitive biases, and social pressure into a powerful force capable of pulling young players into vicious spending cycles. Young players recognize the unfairness of this. Our focus group participants called for an end to the design and marketing strategies that activate this force.



# 3

## HARM 3

**Young people experience homophobia and racism in these spaces, often involving virtual assets. The harm resulting from these experiences can be at least as great – if not greater – than it is in real life.**

Since 2020, through corporate messaging and product marketing, social gaming platforms have praised inclusiveness and made commitments to racial justice. Nevertheless, hate speech, discrimination, and bullying remain ever-present harms on social gaming platforms. These forms of exclusion and abuse are used by some players as a form of entertainment, to intimidate or silence targeted players, and to demean entire groups of people. Targeted players and groups are often those who weather identity-based forms of exclusion and abuse offline.<sup>172</sup>

Experiencing or witnessing online exclusion and abuse can lead to offline harms, including suicidal ideation and feelings of anxiety, isolation, depression.<sup>173</sup> For adolescents, the risk of harm is higher. Adolescents have a developmental need for supportive peer relationships, social status, and community acceptance, making experiences of ostracism, peer rejection, and social exclusion more salient for adolescents than for adults.<sup>174</sup>

During adolescence, we are profoundly sensitive to social status due to changes in the brain's socioemotional reward system. Social feedback, especially from peers within our communities, shapes how we see ourselves, influencing our sense of self and self-worth.<sup>175</sup> That's why we actively seek out and forge connections to others that affirm our developing sense of self, as we practice presenting and expressing ourselves to others in ways that feel authentic.

Beginning around age seven, as social identity begins to emerge, children begin trying to figure out how race-ethnicity matters in the world and what it means to them.<sup>176</sup> By age 12, as their capacity for abstract thinking increases, children become more attentive to how people who look like them are treated by others. As research has shown, “[t]hese observations influence what young people believe is possible for who they can become and the kinds of futures they imagine for themselves.”<sup>177</sup> Ethnic-racial identity becomes increasingly relevant to young people of color during this time, and begins to exert a greater influence upon their self-understanding.<sup>178</sup>

In adolescence, young people also undergo significant exploration and development in areas like sexuality and gender identity, both of which are key components to their overall identity and sense of self-worth. For many, puberty brings heightened uncertainty about sexual orientation – while some adolescents have known theirs since childhood, others are just beginning to question and understand it. Similarly, exploring and expressing gender variance, including roles and identities, is a normal and essential part of this developmental stage. However, for LGBTQ+ youth, this process is often even more complex and fraught with challenges. Societal stigma, lack of representation, and fear of rejection can compound the natural difficulties of adolescence, making it harder for LGBTQ+ youth to navigate and affirm their identities.<sup>179</sup>

Gaming platforms and marketers know that Gen Z and Gen Alpha constitute a more diverse marketing segment than previous generations. These two generations also constitute a marketing segment that wants avatars that look like them. To attract these young players, social gaming platforms offer a range of customization options and tout them as tools for self-expression. Unfortunately, our findings reveal that the corporate approach to diversity is usually performative or even predatory. Worse, some community-based marketing tactics interfere with the authentic self-expression that these platforms claim to support. A virtual environment marketed as an inclusive and safe space for self-expression, while simultaneously monetized in ways that turn that culture into a site of exclusion and abuse, is a classic example of predatory inclusion.

A more specific example of predatory inclusion involves avatar customization. Social gaming platforms are slightly more likely now than in the early 2000s to offer players customization options that allow Black players to create Black avatars with a degree of realism similar to white avatars in a game. Today, young people of color are more likely than their white peers to design their avatar to look

like them and to treat that avatar as a representation of themselves.<sup>180</sup> Nevertheless, some social gaming platforms make design decisions that “reinforce normative whiteness.”<sup>181</sup> In *Roblox*, for example, because the default (read free) avatar is white (see Figure 4 in Appendix D), Black and brown players have to spend money or time grinding in order to design avatars that look like them. White defaults imply that white skin is standard, while other skin colors are deviations from that norm.

Gender diverse youth face similar challenges when seeking to actualize their gender expression in ways that they cannot in real life.<sup>182</sup> *Roblox*, for example, makes feminine-presenting or masculine-presenting avatars the default.<sup>183</sup> Limiting default options for gender expression reinforces a gender binary that excludes nonbinary and gender diverse youth.<sup>184</sup>

Our focus group participants highlighted additional ways in which the commodification of socially-marginalized identities negatively impacts gaming communities and individual players. For instance, LGBTQ+ virtual assets (such as pride flags and clothing) offer visibility while also reducing LGBTQ+ identity to purchasable objects, accessible even to bullies and trolls. Moreover, when these assets are only purchasable within a limited time frame – Pride Month (June) – platforms frame LGBTQ+ identity as a seasonal trend and activate the dynamics of scarcity marketing. Our participants told us that even games that are intentional about LGBTQ+ inclusion (i.e. “Adopt Me” in *Roblox*) resort to time-based scarcity marketing to sell identity-affirming assets. Making matters worse, some gaming platforms sell virtual assets signaling inclusion (like Pride flags) alongside virtual assets signaling bigotry (like Confederate and Nazi flags). By commodifying identity in this way, social gaming platforms undermine the authentic self-expression they claim to support while facilitating social experiences that erode self-worth and contribute to mental health issues, which are already heightened for socially-marginalized youth.<sup>185</sup>

At the most basic level, navigating an environment that treats your identity as a marketable idea – something that can be bought, sold, or altered to align with dominant cultural narratives – can be painful, confusing, and even infuriating. In many social gaming environments, Black and LGBTQ+

players who display identity-affirming assets often face identity-based scrutiny from other players who feel entitled to evaluate expressions of “Blackness,” “queerness,” or other identities based upon narrow, often-negative stereotypes. This identity-policing can take multiple forms – from comments and criticisms about an avatar’s appearance to judgments based on how players sound or the types of games they play. To avoid these alienating experiences, players seeking identity-affirmation might be tempted to participate in stereotypes rather than exploring opportunities for authentic self-expression.

Authentic self-expression and self-presentation are key to positive development. On social gaming platforms, having these experiences requires spending money. Worse, inadequate moderation combined with design features that facilitate bullying and harassment (while at the same time intensifying social pressure to conform to in-game norms) all but ensure that players will encounter digital expressions of the same biases that motivate discrimination, harassment, and abuse offline.

The anonymity of the digital world compounds the harms we’ve described above by reducing fear of real-world consequences for speech and behavior, emboldening some players to express bigotry. Black-identifying focus group participants talked about being trolled by other players pretending to be Black (a practice known as digital Blackface). Focus group participants identifying as LGBTQ+ talked about being harassed and bullied for wearing LGBTQ+ pride assets. Our researcher witnessed *Roblox* players using virtual assets like Nazi flags to harass other players, often while spouting hate.

Intensifying the problems described above is the fact that, due to design features prioritizing profit over player well-being, social gaming platforms can draw Black and LGBTQ+ youth into cycles of consumption. Research indicates that problematic internet use may disproportionately impact Black youth.<sup>186</sup> Similarly, LGBTQ+ youth are more likely to feel “stuck” online, kept captivated by design.<sup>187</sup> The constant exposure to the manipulative design tactics we describe not only exacerbate the challenges Black and LGBTQ+ youth face in maintaining a healthy relationship with digital environments, but also deepens the systemic inequalities they already encounter offline.

# 4

## HARM 4 Engagement-maximizing designs can harm young people’s physical and mental health, and the risk of harm to mental health is greater for young people who experience harassment in these spaces.

In a 2021 advisory, the U.S. Surgeon General observed that many tech companies prioritize maximizing user engagement over user health and well-being. This focus, he warned, “translates to technology companies focusing on maximizing time spent, not time well spent.”<sup>188</sup> Many of the strategies that social gaming platforms use to keep young people playing are identical to the strategies that social media platforms use.

Engagement-maximizing design features, also called addictive or extended-use designs, encourage users to spend more time and engage in more activity. The motivation for deploying these designs is to expose users to more ads, motivate them to generate more data, and in the case of social gaming platforms, spend more time and money for virtual assets. Engagement maximizing designs are impossible for players to avoid and can foster “problematic internet use” - a term psychologists use to describe excessive internet activity driven by impulsivity, compulsion, or addiction.<sup>189</sup>

Engagement-maximizing designs encourage problematic internet use by employing intermittent variable rewards, which orchestrate feedback loops to drive compulsive use. (See Harm 2 for more information.) Scarcity marketing tactics further amplify the effects of variable rewards, by leveraging FOMO to motivate players to stay engaged with the platform. Scarcity marketing capitalizes on adolescents’ heightened reward sensitivity and their developmental challenges with impulse control and decision-making. (See Trend 5.) Features like rotating virtual asset shops tap into adolescents’ predisposition toward novelty, while countdown clocks intensify the emotional impact of these tactics, creating pressure to buy now or start grinding. Especially for players who have little to no virtual currency, the pressure to grind for valuable assets leads players to spend hours and hours online to keep up with other players who can simply pay to win or collect.

Another prevalent approach to engagement-maximizing involves the use of social influence

mechanisms. Streaks, likes, and public displays of the value of a player’s virtual goods are all design features that leverage young people’s need for social approval and social relationships.<sup>190</sup> Leaderboards, which among other things can indicate how much players have spent, make social comparison easy and inescapable. Especially when combined with scarcity marketing, social influence mechanisms can tie players seeking the thrill of the reward to an endless treadmill of engagement.

Adolescents are more prone to reward-seeking behaviors than adults. This is, in part, because the regions responsible for self-control, resisting temptation, and delaying gratification don’t fully develop until our 20s.<sup>191</sup> It’s no surprise, then, that maximizing young people’s time online is linked with worsening psychological well-being. Research has shown that heavy use of digital media is linked to higher rates of depression, anxiety, and suicidal thoughts among adolescents. Feeling constant pressure to stay connected and keep up with virtual trends can lead to chronic stress, sleep deprivation, and a distorted sense of reality.<sup>192</sup>

A 2019 meta-analysis of peer-reviewed research found “firm evidence” that excessive screen use is associated with lower inhibition control, poorer working memory, and trouble with decision-making.<sup>193</sup> Additionally, although young people with weaker impulse control may seek out video games and other mobile activities as a satisfying activity, they are likely to be more susceptible to the manipulative designs described above. While adolescents already have lower impulse control, exposure to engagement-maximizing designs can exacerbate symptoms for young people with Attention Deficit Hyperactivity Disorder (ADHD) or other attention-related diagnoses.<sup>194</sup>

By leveraging psychological principles and deploying strategies like intermittent variable rewards and scarcity, these platforms create environments that are difficult to resist and even harder to escape.

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## HARM 5

**In the hyper-consumerist cultures that these spaces deliberately cultivate, engagement-maximizing designs distort play – a key developmental activity.**

**R**oblox's CEO has said that *Roblox* is the “last bastion of free play,” but when play is mediated by profit, it is never free.

Play is a key developmental activity for young people of all ages (and adults, too, for that matter). The National Institute of Play defines play as “an activity someone chooses for themselves simply because they want to do it – that is, the activity is intrinsically motivated. The person is doing the activity for the internal satisfaction experienced from the activity – versus doing the activity for an external reward e.g., money or to gain someone’s approval.”<sup>195</sup> Child-directed, multi-sensory play helps kids develop “the ability to initiate action, rather than to merely react to stimuli,” explains Fairplay’s founder Dr. Susan Linn in *Who’s Raising the Kids*. This capacity supports our ability “to wrestle with life, to make it meaningful, and to envision new solutions to old problems.”<sup>196</sup> For adolescents, unstructured offline play involving age-appropriate freedom supports the development of the social and psychological skills that will help them thrive later in life.<sup>197</sup>

For many kids today, “play” happens online. A recent Pew Research study involving US kids between the ages of 13 and 17 found that 85% of kids play video games, and 72% play games for social reasons.<sup>198</sup> This is troubling because the monetization and engagement-maximizing designs that social gaming platforms use to increase profits also distort the essence of play. Play is about more than just having fun. The essence of play is joy – a joy rooted in imagination, freedom, and growth. Social gaming platforms displace this kind of play with commercial

activities that resemble play yet overshadow play’s intrinsic value with extrinsic rewards.

Marketing strategies that leverage social influence place emphasis on winning, acquiring rare items, and maintaining social standing. Over-focus on these extrinsic rewards can lead to stress, burnout, and a diminished sense of enjoyment. For some, the pursuit of these extrinsic rewards becomes all-consuming, leading to problematic gaming behaviors that prioritize virtual success over intrinsically-rewarding real-world relationships and activities.

Engagement-maximizing designs easily transform online play into a form of work – a set of tasks to be completed for extrinsic rewards or due to compulsion, rather than an activity that is enjoyed for its own sake. Children cannot thrive in environments that are designed to reduce autonomous decision-making, including the decision to do something else. This is especially true of coercive environments where racism and homophobia are pervasive.<sup>199</sup>

Let us be clear: young people do not need online social experiences to thrive. As Jonathan Haidt writes in *The Anxious Generation*: “One of the most beneficial parts of free play is that kids must act as legislators (who jointly make up the rules) and as judges and juries (who jointly decide what to do when rules appear to be violated). In most multiplayer video games, all of that is done by the platform.”<sup>200</sup> When play is mediated by corporations, children miss out on key developmental activities, impeding their social and psychological development.

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### **The harms of social gaming spaces today will be amplified in a fully realized metaverse.**

Throughout this report, we focus largely on proto-metaverse experiences like *Roblox* and *Fortnite* that are experienced on a tablet, PC, gaming console, or phone because it is largely where young people spend time. But many of these platforms have plans to or have already expanded to virtual reality, including *Roblox*.<sup>201</sup> Use and ownership of XR devices, like virtual reality (VR) headsets, has also increased over the last several

years. A 2022 report by Common Sense found that 17% of U.S. children aged 8 to 18 report having a VR headset, and about 22% of tweens and 27% of teens.<sup>202</sup> Seventy-six percent of children have used VR for gaming.<sup>203</sup> Up until fall 2023, VR headsets like the Meta Quest 2 (formerly Oculus) were rated for users ages 13+, but it was common practice for children under 13 to participate as “hack” teens, that is, teens who lie about their age or use their parents’ accounts to play.<sup>204</sup> In 2023, with the release of the Meta Quest 3, Meta lowered the recommended age to 10 years old, greenlighting younger and younger participation in the metaverse.<sup>205</sup> In July 2024, Meta began rolling out chats and calls between 10- to 12-year-old users and their parent-approved contacts in their headsets. Preteens can now ask parents for access to Horizon Worlds in the US and Canada, despite its current 13+ rating.<sup>206</sup> Researchers have found that children as young as 4 years old “love VR play” and that by 8 years old, “They go nuts. They feel so completely at home.”<sup>207</sup>

Popular culture reinforces the fantasy that “playing” in virtual reality will give young people what they need and want, ignoring the likelihood that without government regulation, the grotesque profiteering we see in today’s social gaming platforms will carry over to VR. Furthermore, the promise of VR as a new frontier for community and creativity comes with a nightmarish truth: the technology needed to access VR environments will give VR platforms unprecedented potential for behavioral manipulation.<sup>208</sup> The vast amounts of data these technologies will collect can be used for unparalleled, monetizable insights into player behavior. The line between free choice and engineered outcomes will continue to fade.

Moreover, experiencing identity-based bullying and harassment and other forms of social exclusion via a VR device has the potential to harm young people more deeply than less-immersive forms of social gaming. Research shows that when people use VR, they treat their avatars as if they are their own bodies. Furthermore, researchers have found that doing so can influence players’ psychology, physiology, and perceptions.<sup>209</sup> In other words, immersing in a virtual reality environment feels really real, increasing the impact of the experience in comparison to one encountered on a gaming console or mobile device.

The sense of “presence” that VR environments strive to create can make the AI-driven entities that young people encounter in VR spaces even more attractive as companions, increasing the strength of parasocial attachments and the power a platform has to use those attachments for covert marketing.<sup>210</sup> We have already seen how AI bots encountered outside VR can have an extremely negative impact on adolescent well-being, even leading to suicide.<sup>211</sup>

In the context of a growing youth mental health crisis, the need for critical examination and regulation of the marketing practices described in this report is not just important. It is urgent. The evidence suggests that without intervention, the psychological toll on the next generation will continue to mount, with far-reaching consequences for both individuals and society at large. To address the harms we’ve described in this report, we provide targeted recommendations below. ■





## TARGETED RECOMMENDATIONS

**Note:** *In this report, we deliberately do not provide recommendations for companies because we believe that first and foremost regulation is needed to create a level playing field for all children and families. Luckily, companies don't have to wait for regulation to better protect young users. They can immediately begin making privacy-protective and child-centered design decisions consistent with the recommendations for regulators below. For example, companies should immediately stop the practice of offering only white avatars by default, thereby forcing youth of color to spend more time or money on a platform in order to design avatars that look like them.*

*However, most Big Tech companies have a history of ignoring what's best for young people as they pad their bottom lines. As such, we believe that regulation should be the priority when it comes to addressing the harms we describe in this report.*



## What Policymakers Can Do:

- **Pass federal legislation imposing safety by design.** Companies that offer XR and proto-XR experiences to young people should bear responsibility for making their products safe by design. Congress should pass legislation that imposes a duty of care on social media and gaming platforms to ensure that their platforms are designed in ways that actively prevent and mitigate specific harms. These include sexual exploitation, harassment, and bullying, as well as harms related to compulsive internet use and predatory marketing and monetization practices. As described in this report and elsewhere, these harms occur with alarming frequency in XR environments and are experienced more viscerally while wearing a VR headset. Lawmakers should require companies to adopt developmentally appropriate design standards that empower kids and teens to disengage from platforms when needed, rather than exploiting their developmental vulnerabilities to keep them online. Additionally, platforms should be mandated to provide robust reporting tools

to parents and kids and to respond promptly and effectively to reports of harm.

- **Pass federal legislation that strengthens the data privacy protections of the Children's Online Privacy Protection Act (COPPA) and extends them to teenagers.** Young peoples' activity in social gaming spaces generates a massive amount of sensitive data, including biometric information. Robust data privacy protections are crucial to safeguarding young users from harmful monetization strategies. Legislation should include a prohibition on use of a minor's data for targeted marketing, preventing companies from selling or sharing young people's data with third parties, imposing clear purpose specifications and use limitations on collected data, and mandating that platforms provide transparent and accessible notices about their data privacy practices to teens. Additionally, the "actual knowledge" loophole in COPPA must be addressed. This loophole enables platforms to avoid liability by ignoring cases where users under 13 misrepresent their age at sign-up,

effectively undermining the law’s intent to protect children.

- **Pass federal legislation imposing transparency requirements for all companies and third-party audits for the largest companies.** Transparency is key to creating an effective regulatory structure. XR

and proto-XR platforms should be required to report on the harms that occur on their platforms and the steps they have taken to mitigate. In addition, researchers should have access to platform data and algorithms so the public can better understand the opaque design decisions that shape user experience and put children at risk.



## What Regulators Can Do:

- **Investigate the data privacy practices of companies offering XR and proto-XR experiences to children under 13 and enforce existing COPPA protections.** The FTC and state attorneys general should rigorously enforce COPPA’s privacy protections for children under 13 in XR and proto-XR environments. During our researchers’ exploration of XR environments, they encountered many users who appeared to be significantly younger than 13. Regulators should investigate, among other things, whether: XR platforms have knowledge of these younger users; kids’ personal information is being collected without parental notice and consent; and kids’ personal information is being inappropriately shared with third parties, retained for longer than is necessary, or used beyond its specified purpose. It is essential that platforms are held accountable for complying with COPPA’s requirements in order to ensure younger children are not having age-inappropriate experiences in the metaverse and to protect children’s information — including highly sensitive biometric information.

- **Restrict the use of manipulative engagement- and profit-maximizing design features under Section 5 of the FTC Act and state unfair and deceptive acts and practices (UDAP) laws.** Fairplay has previously outlined in detail why the use of engagement-maximizing design features is an unfair and deceptive practice as to kids and teens.<sup>212</sup> As described in this report, XR and proto-XR spaces are rife with design features that maximize time and activity (including in-platform spending) but are developmentally inappropriate for young users. Loot boxes, games of chance, and in-game currencies distort the value of virtual assets and encourage in-game spending. Timers, countdown clocks, and

other scarcity marketing design features create pressure to buy virtual assets. Likes, streaks, and visible pricing create social pressure around virtual spending and contribute to a culture of “haves and have-nots.” All of this pressure to spend leads to financial harm for kids and families and exacerbates economic inequalities. Ultimately, these design features leverage developmental vulnerabilities in order to pressure young users to spend in virtual spaces they are entering with the intention to socialize and play. The FTC and state attorneys general should regulate this conduct as an unfair and deceptive practice in violation of Section 5 of the FTC Act and state UDAP laws.

- **Investigate blurred advertising in XR and proto-XR spaces and enforce regulations requiring the clear separation of advertising and non-advertising content in order to help young people distinguish paid content from entertainment.** As described in this report, young people using social gaming platforms assume that marketing is overt and do not always recognize sponsorships and advertisements as marketing. The FTC must enforce its rules and guidelines on stealth marketing in order to make the distinction between marketing content and entertainment content obvious to children and teens. Community-oriented marketing strategies that leverage social feedback and emotional attachment are not developmentally appropriate for young users, who have heightened sensitivity to rewards and behavioral enforcement and are still developing their understanding of marketing.<sup>213</sup> Companies and marketers must be held responsible for practices that blur the line between paid influence and content that is entertaining or educational.

- **Investigate real-time voice and text chat and other design choices on social gaming platforms that exacerbate young people’s experience of sexual exploitation and harassment based on race, gender, and sexuality.** In 2022, the FTC announced a settlement agreement with Epic Games based in part on default settings in *Fortnite* enabling live voice and text chat for young users. Specifically, the FTC found that “[c]hildren and teens have been bullied, threatened, harassed, and exposed to dangerous and psychologically traumatizing issues such as suicide while on *Fortnite*.” We urge the FTC and state attorneys general to investigate similar risks on other social gaming platforms used by kids and teens.

- **Investigate the use of default skins as an unfair practice under Section 5 of the FTC Act and state unfair and deceptive acts and practices laws, attending to disparate impacts on youth of color:** The decision by companies such as *Roblox* to offer limited free avatar customizations imposes an unfair burden on youth of color to spend money or time on the platform to “earn” the ability to make their avatar reflect their true appearance. As we have outlined here, self-fashioning is a critical component of kids’ experience on social gaming platforms. The FTC and state attorneys general should regulate this conduct as an unfair act in violation of Section 5 and state UDAP laws.



## What Schools, Counselors, & Teachers Can Do:

- **Avoid technology from companies that use manipulative design tactics.** While platforms like *Roblox* and *Minecraft* may have educational arms, educators and administrators should not be misled by the promise of increased interest in learning through these programs. Use selection criteria like these from the Acton-Boxborough Regional School District that include manipulative design in their list of what to avoid.<sup>214</sup>

- **Avoid incorporating gaming platforms like Roblox or Fortnite into the classroom.** While it might seem appealing to use popular platforms to engage students, it is inappropriate to incentivize learning through environments that may be detrimental to their well-being. This also includes playing these games with kids out of school time; educators have been terminated for playing *Fortnite* with students as incentive for doing their work. Moreover, using or referencing these platforms in the classroom can reinforce FOMO and/or exclude kids who do not play these games.<sup>215</sup>

- **Acknowledge the grip that these platforms have on young people.** Understand the strong pull that platforms like *Fortnite* and *Roblox* have on children and teens. Some students may attempt to access these games during school hours. In one survey, 25% of young people admitted to playing

*Fortnite* during class.<sup>216</sup> When this happens, provide support and guidance to help students establish healthy boundaries around screen use in school.

- **Acknowledge the role of online social experiences in their development.** The impact of online experiences is real for young people. Understand that marketing tactics targeting students’ desire for virtual assets can have significant effects on their social and emotional well-being. Feelings of exclusion based on virtual possessions can be less overt than cyberbullying but are often just as impactful for young people. Racism and homophobia can be exacerbated in social gaming spaces. In supporting youth, be inclusive of issues that pop up for them online. The more supportive offline feedback they experience, the better equipped they will be to take corrective action to support their mental health and psychosocial development.

- **Prioritize opportunities for socializing and play without digital mediation.** During the school day, school staff can offer chances both embedded in class time and outside of class time for kids to play and interact. A screen-free recess is a great place to start. Even for high school students, unstructured, offline play supports overall social development as well as the development of impulse control and problem-solving skills.



- **Make schools phone-free!** Join the Phone-Free Schools Movement at <https://phonefreeschoolsmovement.org/>. Fairplay has joined the Phone-Free Schools Movement to create toolkits for school administrators and

“ambassadors” (community members who want their schools to go phone-free) to transition to a phone-free learning environment. Download these toolkits at <https://phonefreeschoolsmovement.org/administrator-toolkit/>.



## What Parents & Guardians Can Do:

- **Speak out.** Share your concerns and frustrations with school authorities, school board members, and policymakers.

- **Limit use of social gaming.** Encourage a balanced and healthy relationship with both online and offline experiences by setting limits on social gaming spaces like *Fortnite*, *Roblox*, *NBA 2K*, *FIFA*, and *Call of Duty*. For youth of all ages, do not allow VR. This recommendation is driven not only by the content of our report, but the dangers of wearing a headset in a 3D space.

- **Treat online challenges seriously and understand the role of online social experiences in your child’s development.** Online social status and related pressures to spend money or time online can greatly impact adolescents’ social and emotional well-being. Address any issues your child faces online as you would if they were struggling to fit in or being bullied offline. Offline family support is essential. We recommend acknowledging their emotions around digital experiences — listen empathetically when they express needs for more Robux or the urge to log on. While you don’t have to say “yes” to every request, take a moment to validate their feelings and work together on solutions.

- **Encourage critical thinking about virtual goods and virtual currency.** Foster open discussions about the impact of virtual goods and the importance of critical thinking when interacting with branded content. For example, if your child is persistently asking for more Robux, help them understand the mechanisms in games designed to encourage this desire. Help young people understand the real-world cost of virtual currencies by setting clear budgets, assisting

with calculations, and identifying the differences between various in-game currencies.

- **Reflect on consumerism and brand relationships.** Reflect on your own and your family’s relationship with brands, consumerism, and shopping. It’s not only kids who develop connections with brands; we are all exposed to such influences. As a family, discuss how much you want to normalize consumerism, recognizing that online consumerism often perpetuates some of the most negative experiences in digital environments.

- **Identify and reclaim non-virtual third places.** Support your children in finding and regularly visiting non-virtual third places within your community. Work with neighbors and local organizations to reclaim and create public spaces that are safe and suitable for adolescents.

- **Prioritize non-digital play.** Ensure children engage in non-digital play, both independently and with other young people. Playing together as a family or facilitating opportunities for them to play with peers helps young people build an authentic identity and self-worth.

- **Find community, take action.** Companies prey on kids and their families and deliberately make it difficult to address the harms children are experiencing in these online spaces. You’re not alone. Join Fairplay in fighting against these unfair practices by contacting your legislators and lending your voice to our campaigns. Become a member of Fairplay’s Screen Time Action Network, a coalition of practitioners, educators, advocates, and parents working to take action today. ■

## CONCLUSION



Young people want and deserve to be protected from the marketing harms in proto-metaverse and metaverse spaces. If *Roblox* and *Fortnite* are a model for what the metaverse will look like, amplified by the real-feel of VR technologies, then the metaverse will be overwhelmingly harmful for young people. Anyone who cares about kids cannot be okay with this. Young people should not have to buy things to find belonging.

We cannot use the popularity of social gaming platforms among adolescents to justify inaction. Lack of regulation has normalized harmful monetization practices, socializing kids to think of these tactics as acceptable. Moreover, we must remember that young people, particularly adolescents, tend to resist identifying as victims due to the personal implications that the label carries. Indeed, our culture tends to associate “victims” with weakness and helplessness. And while older people may believe that adolescents like to paint themselves as victims, evidence shows that adolescents (who as a demographic are particularly sensitive to other-perception), prefer to be seen as capable rather than vulnerable.<sup>217</sup> In our focus groups, this resistance to identifying as a victim was most pronounced when talk turned to the concept of fairness and the subject of bullying and harassment. While younger participants were more likely to moralize bullying behavior, older participants were more likely to describe it as a problem they recognize and lament and yet one that they personally have learned how to cope with. Young people’s resistance to identifying as a victim (even when they are describing being abused, manipulated, and/or harassed) is one of the reasons why we are more interested in communicating the experiences that young people have in these environments and what they feel and think about these experiences, than we are in reducing young people to victims of adversarial design. The young

people we spoke with did not want to be labeled at all. They wanted things to change.

Young people should have a voice in shaping how society regulates social gaming platforms to promote the development of safer, more equitable environments for socializing, creative expression, and identity exploration. Participants in our focus groups, for example, called for ending bullying, pay-to-win, microtransactions, and high-priced virtual assets. One 13-year-old participant called out the unfairness of a culture of “haves and have-nots,” saying, “Like, it’s kind of unfair when ... there’s an option to, like, get something, and people buy it. I feel like everybody should be on the same level.” The same participant stated that they loved getting new skins and customizing their avatar. Two things can be true at once. Young people love customizing their avatars at the same time as they lament manipulative marketing that leverages against them their desire to express themselves authentically and to get validation.

Plans to get more young people in the metaverse are already in the works. Meta plans to release a fourth iteration of its Quest in 2026 at two price points, signaling an attempt to deliver the headset to more homes, and in turn get more data.<sup>218</sup> Disney continues its work on a “new persistent universe” that will interoperate with *Fortnite*.<sup>219</sup> *Roblox* will expand its VR efforts to include an option to interact using realistic facial expressions and body language.<sup>220</sup>

It’s clear that tech companies and developers will not regulate themselves. As described above, Meta has expanded access to its Quest 2 VR headset to children as young as 10. The company has continued to lower age ratings for its VR products despite warnings from experts that VR experiences are not yet safe for teens, let alone preteens.<sup>221</sup> Advocates have repeatedly raised issues with deceptive

advertising in games within *Roblox*, as well as the company's use of deceptive earnings claims to encourage young users to grind.<sup>222</sup> Various VR companies have implemented moderation tools to prevent harassment and sexual exploitation.<sup>223</sup> Yet when bullying is a symptom of *and* tool for a predatory economy, moderating bullying will not actually prevent bullying.

The expanding presence of young people in social gaming spaces, coupled with the rapid growth of

immersive technologies, necessitates immediate and thoughtful regulatory action. Without stronger safeguards, the public interest (especially the interests of our young people) will continue to be overshadowed by corporate goals for data collection and profit. Policymakers must move quickly to establish regulations that protect young people from the manipulative marketing tactics embedded in these platforms, while also promoting a genuinely prosocial path for innovation. The well-being of the next generation depends on it. ■



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## Young People's Social Gaming Definitions

**Bacon:** A default avatar in *Roblox*. The term references the bacon-like hair of the platform's free, default avatars. Often used as an insult, see "default."

**Bullying:** A negative behavior that often takes the form of persistent, mean or discriminatory words or actions toward another user. "I would make it so there's less hacking and bullying, I guess; like all the people that bully other people because they don't have a certain type of skin or something, they just go away." - *12-year-old, Black-identifying focus group*

**Cheating:** Someone who cheats often uses a code to get advantages they normally wouldn't have, like entering a code that gives you infinite lives. In social gaming, cheating sometimes refers to buying advantages that allow you to win more easily (pay-to-win).<sup>224</sup>

**Collabs:** Partnerships between brands and game developers to create in-game content or experiences that promote both the game and the brand, also referred to as "collaborations" or "immersive ads."<sup>225</sup>

**Cosmetics:** In the context of gaming and virtual environments, cosmetics refer to virtual items that change the appearance of a character, weapon, or environment without affecting gameplay. These can include skins, outfits, emotes, or other visual enhancements.<sup>226</sup>

**Default:** A hurtful label that denotes that you are unskilled, "poor" (unable to buy virtual assets), or both.<sup>227</sup> "Defaults can get that reputation in the game. Like they're probably not that good." - *15-year-old, 9th and 10th grade focus group*

**Emotes:** Emotes are ways to animate an avatar. Examples include dance moves, sitting postures, blowing kisses, or other expressions. Emotes can be purchased, earned, or acquired for free within platforms like *Fortnite* and *Roblox*.<sup>228</sup>

**Elite:** A term used to describe someone who is a really good player. It also refers to a virtual asset package available for purchase in *Roblox* that provides access to cooler, limited, virtual assets and puts the label "Elite" next to the username of the player who purchased the package.

**Grinding:** Repeatedly playing a game or completing a task in order to increase a character's strength or rank, gather items, or earn in-game currency. Also called farming.<sup>229</sup>

**Hacking:** Can be a player that uses cheat software to gain an advantage in an online game or to interfere with how well a server functions for other players.<sup>230</sup>

**Limiteds:** A term referring to time- or quantity-limited items within a social gaming or XR platform. Generally, limiteds have greater social and financial value.

**Noob:** A person who is new to the game or appears new to a game, who is usually unskilled at a task or game.<sup>231</sup> Often used as an insult, see "default."

**Obbies:** Short for "obstacle course," a type of game available on *Roblox*, *Rec Room*, *Horizon Worlds*, *Fortnite*, etc.

**OG:** Originally short for "Original Gangster," this term is used to describe players who have been playing a game for a long time or virtual assets that were acquired during early iterations of a game, such as the



Season 1 Renegade Raider skin in *Fortnite*.

**Pay-to-Win:** Paying to get advantages in the game instead of earning rewards or higher levels. “I’d say, if you like, if you do pay-to-win like ... to go to the last level ... I mean, you’re just wasting like the currency that you have, instead of just having fun and actually going through the game.” - *15-year-old, 9th and 10th grade focus group*

**Pickaxing:** A pickaxe is a tool/weapon in *Fortnite* that is not only used to open boxes or kill people, it’s used in the game lobby to indicate appreciation for someone’s avatar (by swinging it near them). “It’s a good thing. . . . It means like . . . they admire you, I guess, in that you have, like, a rare skin on or you have something that holds value.” - *15-year-old, 9th and 10th grade focus group*

**Skins:** This term is usually used in *Fortnite* and *Call of Duty* to describe full outfits or avatars available to earn or for purchase. Also see “cosmetics.”

**Sweaty:** “Sweaty” is a slang term used to describe players who are extremely competitive, skilled, or serious about winning. It often refers to players who put a lot of effort into playing, especially when using high-tier or rare virtual assets, like powerful skins, weapons, or other items, to demonstrate their skill or status. For example, in games like *Fortnite*, a “sweaty skin” refers to an avatar outfit worn by top players who are considered skilled and serious about the game. Owning and using these “sweaty” skins can be seen as a status symbol, showing others that you’re a highly competitive player.

**Spamming:** A frowned upon behavior. The term often refers to someone typing nonstop in the chat. “But this, like, 8-year-old kid bought Headless, and then went into the server spamming, texting. ‘Look at me! I have Headless, look at me! I have Headless! Look at me ...’ And then he just left the game. I think he might have gotten banned for spamming or something.” - *11-year-old, 6th-8th grade focus group*

**Swarming:** Being surrounded by other players in a social gaming environment. “Basically, if you’re like really popular, how people would know you’re really like cool and popular is, there’s like a lot of people just swarming.” - *10-year-old, 4th and 5th grade focus group*

**Troll/trolling:** Someone who joins the game to get attention instead of taking the game seriously; they might be perceived as someone who is trying to throw the game. Can also refer to someone harassing another player, but it’s often done for entertainment rather than maliciously. “When you want to troll, then you don’t want [your avatar] to look like yourself.” - *14-year-old, Black-identifying focus group*

**XP:** Experience points, XP for short, is a general unit of measurement for experience in a game. When your XP increases, your skills and strength in the game usually increase with it.



## Additional Definitions

**Advergaming:** Video games specifically designed to promote a product, brand, or marketing message by integrating the marketing content directly into the gameplay experience.<sup>232</sup>

**Algorithmic Targeting:** The use of algorithms to direct specific advertisements or content to users based on their behavior and preferences.

**Asset-Exchange:** A system within games where players can trade, buy, or sell virtual items and assets.

**Avatar:** A first-person digital representation or character that a user creates and controls within a virtual environment, such as a video game or online platform.<sup>233</sup>

**Blockchain Gaming:** Video games that use blockchain technology to incorporate the use of cryptocurrencies and/or NFTs in the gameplay, also known as crypto gaming, NFT gaming, or play-to-earn gaming.<sup>234</sup>

**Cross-Platform Accessibility/Cross-Play:** Describes the ability of players to play with others regardless of hardware.

**Cross-Platform Progression:** Describes the ability of players to port their in-game progress and virtual assets across different devices.

**Creator:** According to *Roblox*, “Any User who creates, uploads, publishes, generates, or otherwise makes available UGC [user generated content] on the Services. Creators include but are not limited to Developers.”<sup>235</sup>

**Creator Economy:** An economic system where creators, such as influencers, brands, or developers, generate original content that can be monetized or used to enhance brand visibility.<sup>236</sup>

**Decentralization:** The distribution of authority, control, and data across multiple points or nodes, reducing reliance on a central authority.<sup>237</sup>

**Digital Twin:** Also referred to as “phygital,” this is a virtual counterpart of a real-world object, often used in computer simulations of real-life events or actions.<sup>238</sup>

**Direct-to-Avatar (D2A):** Refers to the channel of businesses selling a digital product directly to an avatar, effectively avoiding any logistics related to the sale of a physical product. D2A products are sold so that a person has more choice in how they project themselves in the metaverse. Products like designer skins, experiences, and land assets are D2A products.<sup>239</sup>

**Extended Reality (XR):** An umbrella term for all forms of persistent, immersive technologies, including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR).<sup>240</sup>

**Guild Systems:** A guild (also called a clan, faction, or community) is an organized group of players that regularly play together in one or more multiplayer games.<sup>241</sup>

**Halo Effect:** A decision-making bias in which our overall impression of a person, object, or product is positively influenced by our admiration of a specific trait.<sup>242</sup>

**In-App Purchasing:** Also called in-game purchasing, this is a primary method of monetizing games and online platforms. Making an in-app purchase is the act of buying items within a game, such as power-ups, unique game levels, or cosmetic items for avatars.<sup>243</sup>

**In-Experience Items:** Such as in *Roblox*, it is “[user-generated content] available for acquisition by Users within a given Experience that can only be used within that Experience. In-Experience Items include but are not limited to game passes and special abilities.”<sup>244</sup>

**Intellectual Property (IP):** Intangible assets – e.g., characters, innovative designs, software code, copyrights – that are owned by a company or individual. IP licensing has become a popular marketing tactic for game developers seeking to tap into an existing fan community.

**Immersive:** This term is used to describe online experiences that make users feel as though they are “inside” a virtual environment, rather than simply viewing that environment.<sup>245</sup>

**Leaderboards:** Ranking systems that display player or team performance based on metrics like scores, wins, kills, or completion times.

**Metaverse:** While definitions vary, the concept can be usefully understood as a persistent network of explorable, connected, 3D immersive environments where users engage in a variety of activities, like gaming, shopping, and socializing. We like Common Sense Media’s definition:

*“The metaverse is a series of connected digital worlds in which users can interact through first-person avatars. Some enter it with virtual reality devices, but many use just a smartphone or computer screen. Every day, millions of children experience a corner of the metaverse through games like Roblox, Fortnite, and Minecraft. The metaverse is quickly populating with users of all ages, and companies are also setting up shop, buying digital real estate and designing ad campaigns. Metaverse platforms have imposed few*

*rules in these new worlds. Most avatars roam innocently, playing, chatting, and creating, but others take advantage of the digital freedom and the young profile of users to perform inappropriate, harmful, and damaging acts. You have read about (or experienced) harassment in traditional online environments, like a forum or social media site. Now imagine that harassment with users wearing VR headsets, fully immersed in digital abuse.”<sup>246</sup>*

**Microtransactions:** Small in-game purchases that enhance or unlock features within a game, often used as a revenue stream in free-to-play games.

**Mirror Worlds:** Digital versions of the real world with virtually rendered equivalents of people, places, and things.<sup>247</sup>

**Monetization:** The process of generating revenue from a product, service, or platform, often through in-app purchases, advertising, subscriptions, or selling virtual goods.

**Multi-Channel Marketing:** A marketing approach that uses various platforms (e.g., TV, social media, influencer marketing) to reach consumers across different channels.

**Native Advertising:** A form of advertising that blends in with the content around it, making it less intrusive and more engaging.<sup>248</sup>

**NFTs (Non-Fungible Tokens):** Unique digital assets verified using blockchain technology, often used as collectible virtual goods in games.<sup>249</sup>

**Organic Marketing:** Marketing strategies that rely on brand-building and user engagement rather than paid advertising.

**Persistent Virtual Worlds:** The idea that a digital platform continues to exist and constantly develop even when there is no one interacting with it.<sup>250</sup>

**Play Patterns:** The behaviors and habits of players within a game, such as social interactions, competitive gameplay, trolling, exploring, or grinding. These patterns can be influenced via a game’s mechanics and reward structures.

**Proto-XR:** Early or foundational versions of Extended Reality technologies. Examples include *Roblox* and *Fortnite*. Also referred to as proto-metaverses, these are online environments that users explore and interact with via first person avatars.<sup>251</sup> (NB: ProtoXR is also the name of a VR game.)

**Public Quest:** In multiplayer online games, players enter an arena and are required to complete a certain task or “quest.” When these are public, players in that arena work together to complete the quest (as opposed to it being done individually).<sup>252</sup>

**Sandbox:** Refers either to the metaverse platform “The Sandbox” or to a type of game that allows players the freedom to shape their digital open world.<sup>253</sup>

**Scarcity Marketing:** A strategy that leverages the limited availability of certain items or experiences to create demand and drive sales. It can be time-based (a limit on the amount of time in which an item will be available) or quantity-based (only a certain number of items are available to a certain number of users).

**Social Gaming Platforms:** Online, immersive environments that integrate gaming with shopping and social interactions, enabling players to create customizable avatars and collaborate, compete, and connect with other players in real time.

**User-Generated Content (UGC):** Any content that users create and upload to a game or platform. Also referred to as user-generated goods (UGG), these in-game items or content are often used as part of a game’s economy or to drive player engagement.<sup>254</sup>

**Virtual Asset or Good:** Also called digital goods or digital assets, a virtual item with distinct value and usage rights. It can exist in any format, such as a written document, audio, or a photograph. It can also be less concrete like an emote (dance) or character function within a game that can be purchased and stored in a virtual inventory. Blockchain technology has made it easier to create digital assets.<sup>255</sup>

**Virtual Currency:** Digital money used within games to buy items, upgrades, or other in-game assets, often purchasable with real money. This includes official game currency like V-Bucks (*Fortnite*) and Robux (*Roblox*) that can be purchased with real money or earned, as well as secondary in-game currency that can be purchased with virtual currency.

**Virtual Economies:** Virtual economies are digital ecosystems where users can buy, sell, and trade digital goods, services, and assets within the metaverse. These economies often rely on blockchain technology and NFTs to establish ownership and scarcity of virtual items, enabling users to have true ownership and control over their digital possessions.<sup>256</sup>

**Virtual Marketplaces:** Virtual marketplaces are online platforms within the metaverse where users can buy, sell, and trade virtual items, assets, and services. These marketplaces often utilize blockchain technology and NFTs to establish ownership and provenance.<sup>257</sup>

**Virtual Reality (VR):** A simulated experience that can be similar to or completely different from the real world, typically involving VR headsets that provide immersive environments.<sup>258</sup>

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## APPENDIX B: VIRTUAL GOODS AND STREAMS OF ACQUISITION

A virtual good (sometimes called virtual asset or digital good) is a virtual item with distinct value and usage rights that can be purchased and stored in a virtual inventory. It can exist in any format, such as a written document, audio, or a photograph. It can also be less concrete like an emote (dance) or character function within a game.<sup>259</sup> Most platforms have a catalog or “shop” available, showcasing a range of virtual goods. On platforms like *Roblox*, individual experiences (a.k.a. games) also have dedicated shops that host game-specific assets that may or may not be usable outside of that particular experience. Virtual goods have a number of different functions within social gaming spaces. These include:

### **Items that do not (necessarily) impact game play:**

“Cosmetics” include items like skins (in *Fortnite*) or clothing/character bundles in *Roblox*. *Roblox*’s items go for as much as \$20,000 USD.<sup>260</sup> These include not only clothing, but also whole avatars, skin colors, hair, face shapes, dance moves (emotes), embellishments to how your name appears, and other ways of appearing. They may also include possessions like weapons, pets, and vehicles. These do not necessarily confer a competitive advantage in the game, though our focus group participants told us it’s sometimes advantageous to have a certain type of skin in *Fortnite* and other games, in order to be able to blend into the background or be a smaller target.

### **Items that confer a competitive advantage:**

Certain weapons, abilities, or other virtual assets may be paid for or earned in order for players to do better at the game. For example, “elite” knives and guns in *Roblox*’s “Murder Mystery II” experience make it easier to kill others. In *Fortnite*, players can use virtual currency to buy up to 100 battle pass levels, giving players more XP (“experience points”), allowing them to access new skins and other cosmetics.<sup>261</sup>

### **Virtual fashion that also exists in real life:**

Virtual fashion also includes designer items that exist as real items, like Balenciaga or Nike shoes, or Prada handbags, which Meta announced would be part of the VR Store on the Meta Quest device in late 2022.<sup>262</sup> Researchers found

that kids are expecting this; in one study, an 11 year-old girl projected, “You could scan in your Converse, and then your avatar would be wearing them.”<sup>263</sup> A 12-year-old said, “I really love kitting out my avatar with Gucci handbags.”<sup>264</sup> Sometimes, a purchase of a real-life fashion item comes with a free “digital twin” (a digital version of that item) that can be used on select social gaming platforms.

The main mechanism for customizing an avatar is through virtual assets. Virtual assets can be acquired through a number of different streams, such as:

- **Real money:** This refers to fiat currency, such as US dollars (USD), euros, etc., that players use to purchase virtual items within a game. Using real money to directly purchase a virtual asset is rare; usually real money is used to purchase virtual currency within a game that can then be used to buy virtual assets.
- **Virtual currency:** Virtual currency is digital money used within games to buy items, upgrades, or other in-game assets. Virtual currency is usually purchased with real money. For example, at the time of writing, *Roblox* players can spend \$9.99 USD for 800 Robux (the platform’s virtual currency). Virtual currency can also take the form of shells, stars, coins, or other trinkets. Sometimes, purchases of virtual currency come with bonus virtual assets, such as the “Roblox Crown of Roblox Loyalty” for spending over \$19.99 on Robux.<sup>266</sup> Virtual currency can also be earned through gameplay rather than purchasing with real money. It is often awarded for completing tasks, missions, or achievements. For example, players earn 100 V-Bucks after completing their first “Battle Royale” game in *Fortnite*. This is, however, not enough to purchase any virtual assets.
- **Game play (earned):** This refers to items or rewards directly earned through actively playing the game, completing tasks, or achieving milestones. In *Fortnite*, players earn experience points (XP) and level up their Battle Pass by completing daily and weekly challenges, which

rewards them with cosmetic items. In *NBA 2K*, players earn new players and basketball shoes by winning games.

- **Other play (earned):** Sometimes this might include mechanisms like “free spins” on a gambling wheel or in an AFK mode, where users do tasks outside of the main plot of the game to earn virtual assets or virtual currency.

- **Loot boxes:** Loot boxes are in-game containers that conceal a virtual asset or set of assets. These assets may be rare, limited, or otherwise valuable. Usually, they are not. Players obtain them using real money or in-game currency. They may also receive them as rewards for prolonged play (“grinding”). Because loot boxes contain virtual items of variable value, they are often compared to slot machines.<sup>267</sup>

- **Trading:** This involves the exchange of virtual items or currency between players within the game. It can be facilitated by the game’s trading

system or through player-to-player interactions. For example, someone might trade a limited edition hat for a rare sword, or three common pets for a rare pet in “Adopt Me” on *Roblox*. Not all games have trading mechanisms (i.e. *Fortnite*).

- **Free:** Some games give away virtual items for free, sometimes only for a limited time. Free virtual assets are often associated with special events or brand collaborations and may become “valuable” later.

- **Gifting/donating:** Players can also gift or donate virtual assets or virtual currency to other players, either within game play or in specific experiences set up for donation, like “PLS Donate” in *Roblox*.<sup>268</sup>

- **Gray markets:** This refers to unofficial, often unregulated markets where players can trade, buy, or gamble virtual items, particularly cosmetic items or skins. These activities are not sanctioned by the game developers and can involve real money transactions.<sup>269</sup>

### Introduction

This report takes a comprehensive approach by incorporating an analysis of industry discourse with online focus groups and immersive exploration of social gaming platforms. Our research objectives included:

- Capture insider discussions and trends in the monetization of social gaming platforms as well as XR/metaverse platforms.
- Understand how children and teens experience virtual goods and brands in social gaming spaces.
- Learn what 9- to 15-year-olds have to say about their experiences with virtual goods in social gaming spaces, including:
  - How young players learn about, acquire, and use virtual assets
  - How marketers may unfairly or deceptively market virtual assets to young players
  - What young players value in these spaces, and what they would change about them
- Gain insight into how the marketing of virtual goods impacts socializing in these spaces.
- Capture ways that virtual assets are experienced by young players who identify as Black or LGBTQ+.

The underlying assumptions of our work are, first, that children and adolescents have unique developmental characteristics and needs that must be prioritized in the design of online environments in order to foster healthy social experiences and reduce harm. We also know that online environments (including social media, gaming, etc.) typically use a business model that is based on player engagement, data collection, and microtransactions. We know that companies often use design tactics that impact player experience to meet business objectives.

We have also based our work on the assumption that policy interventions are effective tools for supporting public interest values; corporate accountability is one example of that. Lastly, we have built this work based on the assumption that youth perspectives are valuable and that young people's experiences are key in understanding the impact of virtual assets and marketing in today's social gaming platforms as well as future metaverse spaces. We acknowledge that identity factors, such as race, gender, and

sexuality, play a significant role in how young people experience these spaces, including virtual assets.

### Analysis of Industry Discourse

We began our work with an in-depth analysis of monetization strategies in social gaming spaces and the metaverse in order to contextualize findings from our focus groups and participant observation. This analysis also provided insight into the types of brands likely to market to children in social gaming platforms and virtual reality platforms. To complete this task, we used a tactic that T.F. Corrican calls, "listening in," an iterative qualitative method that closely examines trade press documents to extract insider information.<sup>270</sup>

Through recommendations from experts, internet searches, prior knowledge, and references within other pieces of literature, we compiled a list of metaverse and technology-related publications, NGO reports, industry press, popular press, academic articles, books, podcasts, and other literature. Our research team designated a primary reader for each publication or piece of literature. Using a set of guiding questions around virtual assets, marketing strategies, regulations and compliance, impact on children, and more, each researcher summarized the key points of the document, with particular attention paid to the guiding questions, and noted the source's credibility and relevance, how it might be used, and if there are any limitations or potential for bias. These annotations were compiled in an annotated bibliography for internal use while compiling the findings of this report.

### Online Focus Groups

We chose focus groups as a data collection method because they a) provide descriptive information that offers insight into the "views, experiences, beliefs and motivations of individual participants," as well as insight into "collective views, and the meanings that lie behind those views;" b) in multi-method projects, focus groups allow researchers to "collect group language or narratives to be used in later stages"; and c) they allow researchers to "clarify, extend, qualify or challenge data collected through other methods."<sup>271</sup>

We conducted five semi-structured focus groups over five days, from March 25 to March 29, 2024. We used a “purposive” sampling technique (a widely-used qualitative sampling technique in which participants are chosen due to their characteristics), recruiting for a range of embodied perspectives, attitudes, and experiences with these environments and with virtual goods (young people with no experience in these environments or with virtual goods were excluded). Additional inclusion criteria included demographic characteristics such as age, gender/gender expression, sexual orientation, and race.

The sample included 27 participants in total between the ages of nine and 15 currently living in various parts of the United States. Participant grade levels were between 4th and 10th grade. Participant genders included male, female, nonbinary, and transgender. Participant racial/ethnic backgrounds included white, Black, Asian, South Asian, Southeast Asian, and Latine. Participants access games using a variety of hardware, and spend time in a variety of social gaming spaces.

Participants were recruited via recruiter’s nationwide database. Invitations were sent to a diverse group of parents/guardians asking them to please fill out a preliminary online screener with their child. Our recruiter reviewed results, and based upon that review chose a subset of those candidate participants for phone screening. The recruiter spoke to the parents and rescreened the child to confirm accuracy of responses.

Participants were arranged into the following focus group sessions:

- 4th and 5th graders (nine- to 11-year-olds)
- 6th, 7th, and 8th graders (11- to 14-year-olds)
- 9th and 10th graders (14- to 15-year-olds)
- Black-identifying 6th, 7th, and 8th graders (11- to 15-year-olds)
- LGBTQ+ 7th, 8th, 9th, and 10th graders (13- to 15-year-olds)

To support data collection, moderators worked to create a welcoming environment in which participants felt comfortable interacting with each other and understood their role as “experts.” Moderators also took steps to ensure that discussions stayed focused and were not dominated by any subset of participants. Discussion questions were divided into the following broad categories, including game and platform usage, virtual goods,

advertising and marketing, identity, belonging and social comparison, and future expectations/recommendations for improvement.

Focus group discussions were conducted over Zoom, recorded, transcribed by Zoom’s AI, and edited for accuracy. Each focus group was 90 minutes in length, and moderated by one person while 1-2 additional researchers took notes in real time.

Using a grounded-theory approach, participant responses were then coded for content and organized into major themes. Researchers also looked for latent codes, that is, codes that provide insight into shared and durable understandings/assumptions that structure thinking about gaming, game-design, virtual goods, the marketing of virtual goods, brands, social status, and social belonging. Researchers gathered exemplary language from the transcripts.

The approach to coding was “reflexive,” meaning that researchers did not use a codebook and instead sought to make room for the embodied perspectives of the researchers while at the same time firmly basing analyses on the data itself.

The grounded theory approach included the following techniques: content analysis, thematic analysis, comparative analysis, and discourse analysis. Each coder completed initial analyses of two transcripts (see above). In addition, both coders completed an analysis of the same transcript (see above), and used a process of “constant comparison” (i.e., reading and re-reading data and codes to deepen understanding and increase validity of codes). All analyses were verified via peer debrief. Each coder completed an internal analysis report to support the peer debrief phase of the coding process. These are three widely-used methods for guarding against individual researcher bias.

## **Participant Observation**

Our participant observation aimed to capture young people’s experiences in social gaming platforms, focusing on their use of virtual assets and the marketing strategies within these environments. By documenting these experiences, we gained insights into how platforms promote virtual asset discovery and purchases and how these design choices impact users. This immersion provided practical insights that complement focus group data, providing greater insight into potential risks to young people in these environments.



Using accounts operated by a Fairplay staff member, we explored seven social gaming platforms identified by our focus group participants where virtual assets are central, keeping a researcher's diary including screen and video captures. In each platform, we used an exploratory approach, taking time to get to know each game or experience and looking specifically to document the mechanisms by which virtual assets are marketed to young people in social gaming platforms and capture the social environment in each game, including how virtual assets are talked about, used, or experienced. We also sought to capture specific scenarios discussed by focus group participants, including but not limited to interactions involving rare items or popular players, such as pickaxing or swarming; interactions involving default items, like bullying or labeling players as "bacon" or "noob"; trading dynamics, including role-playing trades; gameplay improvements through purchased virtual assets, game passes, or VIP bundles; item shop updates and options that vary for different player profiles; representations of LGBTQ+ and Black identity through self-fashioning choices; and the presence of real-world brands and their impact on player interactions.

Our accounts included representations of the following users in social gaming spaces where customization was possible: a 10-year-old ambiguously brown femme-presenting, 12-year-old Black masc-presenting, 14-year-old white/ambiguous femme-presenting "default," and 15-year-old white, non-binary or LGBTQ+ presenting. All avatars and profiles were fictional to maintain ethical standards. In reporting, we also anonymized any identifiable information captured during participant observation.

We chose the following social gaming platforms based on our review of industry publications and focus group data: *Roblox* (via Desktop, Mobile, Meta Quest 3), including experiences such as "Adopt Me," "Welcome to Bloxburg," "Murder Mystery 2," "Dress to Impress," "Impossible Obby," "Blade Ball," "LGBTQ Hangout," "Neighbors," "Therapy" and "Grab;" *Fortnite* (via PS5), including experiences such as "Battle Royale," "Creative Mode," and "Lego Fortnite;" *VR Chat* (via Meta Quest 3), including "The Black Cat;" *Horizon Worlds* (via Meta Quest 3), including experiences such as "MetDonalds" and "Music Valley;" *Rec Room*, including experiences such as "The Black Cat," "RecMilitaryRP1," "Spin the Bottle," and "Golden Trophy;" *NBA 2K24* (via PS5);

and *Call of Duty: Modern Warfare* (via PS5).

In order to fully participate in similar experiences to the youth in our focus groups, we purchased several games and also made purchases of virtual assets, which included skins/cosmetics (both limited and for a desired appearance), weapons, battle passes, levels, and virtual currency.

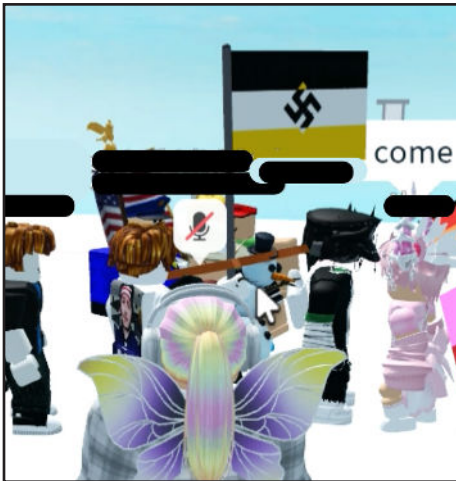
## Limitations

As with any study, this one contains limitations that merit discussion. One limitation is small sample size, which may limit the generalizability of the findings. Additionally, although our focus group sample was diverse, it was not nationally representative. We intentionally excluded children younger than nine and older than 15. The majority of participants were from coastal regions, spoke English, and had reliable internet access. Variations in participation levels, potential group dynamics effects, and possible social desirability bias further affect the focus group data. Although measures were taken to reduce and account for bias, stakeholders should keep in mind that qualitative studies like this one necessarily rely upon participants' self-reporting and researcher interpretation. Moreover, participant observation is always subject to observer bias and constraints; our researcher's limited time in each environment and role pretending to be a young person might have affected behavior and interpretation. Finally, this study documents the experiences that young people have in their preferred social gaming platforms, but does not seek to make claims about how young people's real-world social contexts influence how they interpret these experiences.

While a qualitative approach yields contextualized, in-depth information regarding individual participants' lived experience and motivations, as well as complementary insight into collective views, a well-designed mixed-methods study involving a large, nationally-representative sample would be able to offer measurable insights, enabling researchers to test the statistical significance of the relationships and patterns observed.

Continued investment in high-quality research designed to further our understanding of the interplay between social gaming and young people's positive development and overall well-being, as well as our understanding of what we as a society can do to amplify any potential benefits and reduce risk of harm, remains essential. ■

## APPENDIX D: SCREENSHOTS FROM PARTICIPANT OBSERVATION



**Figure 1:** In the “LGBTQ+ Hangout” experience in *Roblox*, an avatar holds a flag emblazoned with a Nazi swastika while participating in a homophobic discussion.



**Figure 2:** Swastikas and KKK members are drawn on a whiteboard in *RecRoom*.



**Figure 3:** The rare Travis Scott skin in *Fortnite* is described as “sweaty.”



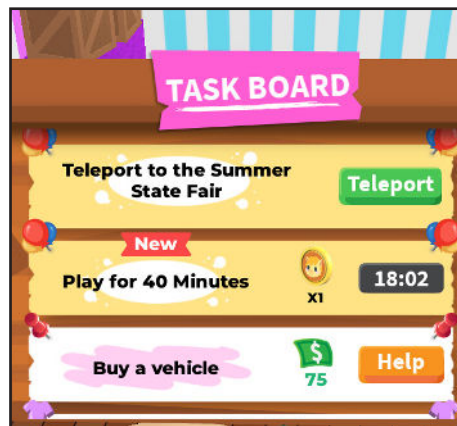
**Figure 4:** *Roblox* default avatars, also called “bacons” because of their hair design.



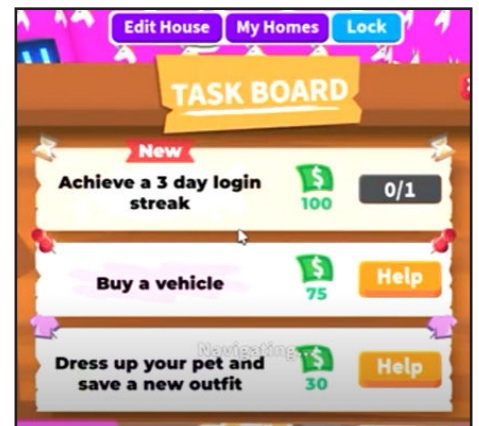
**Figure 5:** The default skin in *Fortnite* rotates skin colors and genders, but generally has plain, olive-colored clothing.



**Figure 6:** In the “Murder Mystery II” experience in *Roblox*, another player compliments our Korblox Deathspeaker avatar, saying “I like your avatar.”



**Figure 7:** Time-based rewards are displayed on the “Task Board” in *Roblox*’s “Adopt Me,” including receiving a special token for playing for 40 minutes (left) and in-game currency for logging in for three days in a row (right).

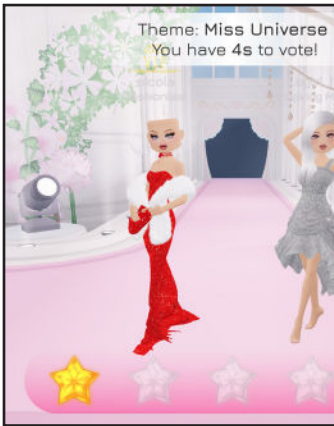




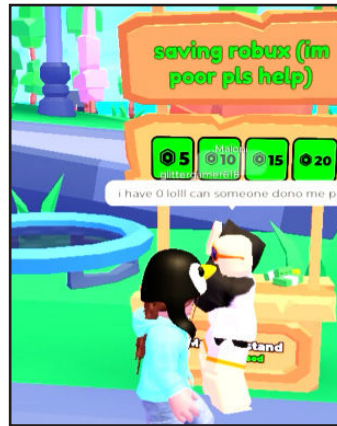
**Figure 8:** A side-by-side comparison of houses available to someone with a Daily Log-In Streak of 1 day (left) and Daily Log-In Streak of 41 days (right) in “Adopt Me,” with streak days displayed (*Roblox*).



**Figure 9:** Our 10-year-old *Roblox* account’s avatar, equipped with cargo jeans (60 RBX), butterfly shirt (5 RBX), cozy sweatshirt (free), Adidas Black Campus Shoes (150 RBX), and cute penguin hat (79), plus custom skin color (free) and braided hair style (70 RBX).



**Figure 10:** Two models walk the runway in *Roblox*’s “Dress to Impress” and are rated on a scale from 1-5 stars by other users on the server. “VIP” models, who pay a premium, are much more likely to win.



**Figure 11:** The sign on a user’s donation stand in “PLS Donate” reads, “saving robux (im poor pls help).” The user, stationed nearby is saying “i have 0 lolll can someone dono me pls.”



**Figure 12:** The leaderboards in *Roblox*’s “PLS Donate” showcase top donors as well as transactions happening live within the server. 20,000 Robux is about \$70 USD. The top donor has gifted 784 million Robux, about 2.7 million USD.

## APPENDIX E: CONSENT FORMS

### Parental Consent for Participation in Focus Groups

I give my child \_\_\_\_\_, who is \_\_\_\_ years old and in \_\_\_\_ grade, permission to participate in a focus group with 3-5 other children of a similar age and grade in school, in which they will be asked to discuss their experiences with virtual goods in online environments such as *Fortnite*, *Roblox*, and *RecRoom* that children might access on a tablet, computer, game console, and/or virtual reality device.

I understand that this focus group is part of a larger research project designed and conducted by Fairplay, a nonprofit that works to make online spaces safer for children and that advocates for policies and legislation that protect the mental health and well-being of young people in online environments. This research is sponsored by the Minderoo Foundation, a philanthropic organization based in Australia that is working toward a fairer future for all.

My child will be one of approximately 25 people between the ages of 9 and 15 participating in the focus group phase of this project.

My signature below signifies my consent for my child to participate in the focus group phase of this project on the following terms:

1. My child will be compensated \$150 for their time as long as they complete the focus group.
2. Participation involves attending a check-in period (with tech check) prior to the interview and being interviewed in groups of 3-5 by one member of the research team. The check-in period will take about 15 minutes total and will be conducted over Zoom immediately before the group. The group discussion will last approximately 90 minutes and will also be conducted over Zoom. Notes will be written during the interview, and the interview will be recorded and transcribed using Zoom's AI Assist technology. If I do not want my child to participate in a Focus Group on Zoom with their camera on or be recorded, they will not be able to participate in the study.
3. I understand that most participants will find the focus group process interesting and thought-provoking. If, however, my child feels uncomfortable in any way during their focus group session, they have the right to decline to answer any question or to exit the focus group. I understand that they will not be paid, however, they discontinue their participation or withdraw from the project before completion of the focus group.
4. I understand that by default my participation in this project will remain confidential, and that my child will not be identified by name in any reports using information obtained from this interview. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.
5. I have read the explanation above and understand my role in this project. I have had all my questions answered to my satisfaction, and I voluntarily agree for my child to participate in this project.

I have been given a copy of this consent form.

My Signature \_\_\_\_\_ Date: \_\_\_\_\_

My Printed Name \_\_\_\_\_

My Child's Name \_\_\_\_\_

For further information, please contact: Lisa Chiapetta, email redacted.

## APPENDIX E: CONSENT FORMS

### Assent for Participation Minor in Focus Groups

You are being asked to be a part of a research study with kids your age. We are asking you to take part in this study to better understand your experiences with virtual goods in online environments such as *Fortnite*, *Roblox*, and *RecRoom* that you might access on a tablet, computer, game console, and/or virtual reality device.

**Who is doing the research:** This focus group is part of a larger research project designed and conducted by Fairplay, a nonprofit that works to make online spaces safer for children and that advocates for policies and legislation that protect the mental health and well-being of young people in online environments. This research is sponsored by the Minderoo Foundation, a philanthropic organization based in Australia that is working toward a fairer future for all.

**What we will ask you to do:** We are asking you to participate in a focus group with 3 – 5 other people either in the same grade or a grade or two older or younger than you. Think of a focus group as a conversation, similar to one you might have in school in which an adult asks you questions (sort of like a teacher) and you and your fellow participants answer questions. Unlike in school, there is no wrong answer (and, in this case, you may know more than the adult). If you agree to be part of this focus group, you will be expected to share your honest opinions, feelings and points of view, and to listen to those of your fellow participants.

**What you will gain or lose from the study:** You will receive \$150 for participating in the 90-minute focus group. You must participate in the full focus group to receive the \$150. There is nothing you will lose from this study other than the time you take to help us. Your participation will help Fairplay help protect the well-being of young people in online environments.

**Your answers will be kept private:** We will not share any information about whether or not you took part in this study with anyone beyond the research team conducting the project. The conversation will be recorded only for the purpose of reviewing notes and analysis. No videos will be made public in any form.

**Taking part is voluntary:** Taking part in this study is your choice, and you do not have to participate if you do not want to.

**If you have questions:** If you have questions during or after the focus group, you may talk to the person who contacted you about the study, Lisa Chiapetta (REDACTED). You may also talk with your parents, teachers or other adults to discuss what you discussed in the focus group.

I have read the above information and have received answers to any questions I asked. I agree to take part in the study.

Your Signature \_\_\_\_\_ Date \_\_\_\_\_

Your Name (printed) \_\_\_\_\_