More Than Just Microtransactions: Predatory Monetization in User-Generated Games

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Predatory monetization in video games refers to purchasing systems that hide or postpone the complete financial consequences until players are already deeply committed, both financially and emotionally. These systems manipulate players into spending against their genuine interests, benefiting game companies while causing potential financial harm. This issue has drawn increasing scholarly and societal attention, but little research has explored how players perceive the influence of predatory monetization on their gaming experiences. Through an interview study with 23 players of popular user-generated games hosted on platforms such as Roblox and Minecraft and a reflexive thematic analysis, we identified three key influences of predatory monetization: felt manipulation, monetized interpersonal relationships, and risks with mitigation strategies. We further describe social monetization, where monetization and players' social experiences are closely intertwined, as well as the ecosystem of predatory monetization, where multiple stakeholders play interconnected roles in enabling and sustaining predatory monetization practices. Finally, we offer design implications for mitigating the negative influences of predatory monetization.

CCS Concepts: • **Human-centered computing** → Empirical studies in HCI.

Additional Key Words and Phrases: User-generated Game, Game Monetization, Online Safety, Deceptive, Design Patterns, Social Game, Player Experiences, Multiplayer Online Game

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1 Introduction

Predatory monetization in video games refers to "purchasing systems that obscure or delay the full financial impact until players are already financially and psychologically invested" [49]. Predatory monetization practices refer to the actions employed by game designers to implement and sustain predatory monetization systems, such as game mechanics designed to encourage

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spending, products that fail to meet expectations, and manipulative advertising techniques [62, 70]. The misleading, aggressive, or unfair predatory monetization practices [70] frequently result in financial losses for players [50]. Recent news has highlighted cases in which predatory monetization has caused players to spend significant amounts of money unintentionally [9, 30, 80]. Some game companies, such as Epic Games, the publisher of Fortnite, have faced lawsuits for predatory monetization practices that cause accidental spending [29]. Scholars have also recently criticized the ubiquitous microtransactions on the platform Roblox for manipulating players into making unwanted purchases [51, 53].

User-generated game (UGG) platforms like Roblox have attracted both media and scholarly attention because of the prevalent predatory monetization practices. UGGs are games designed, developed, and monetized by individual game creators on UGG platforms like *Minecraft* [91], *Roblox* [92], *Rec Room* [93], and *Fortnite Creative* [94]. These platforms provide creators with extensive tools to create diverse games, ranging from obstacle courses (obby games) and first-person shooters to social and role-playing games. Platforms also offer various monetization opportunities, including microtransactions, paid access, and revenue-sharing models. For instance, Minecraft allows creators to charge for server access or sell game passes [95]. Roblox [96] and Rec Room [97] allow creators to add extensive microtransactions, such as revive passes, custom skins, and premium items, to their games. Roblox [98] and Fortnite Creative [99] reward creators based on player engagement with their games. Unlike mainstream video games, which typically implement a limited set of monetization practices, UGG platforms expose players to a variety of monetization practices across different games. This diversity provides a unique opportunity to examine how players navigate and respond to various monetization practices within a single platform. Additionally, compared to major game companies, which often face significant scrutiny regarding predatory monetization practices [69], games on UGG platforms receive comparatively less public attention and regulatory oversight [88]. The sheer volume of games on these platforms makes consistent moderation and oversight of monetization practices difficult to enforce [88]. As a result, predatory monetization practices may proliferate with minimal intervention. This relative lack of scrutiny and regulation makes UGG platforms an important, yet underexplored, context for studying the influence of predatory monetization practices on players. Therefore, we selected UGG platforms as our study site due to the vast number of games they host, which include a diverse range of monetization practices. This paper primarily examines monetization practices within individual UGGs hosted on UGG platforms, such as what are commonly referred to as *Roblox games* or *Minecraft servers* (i.e., individual games). When referring to specific UGG platforms, we use platform names such as *Fortnite Creative* or *Rec Room*.

Existing research on predatory monetization has primarily focused on identifying and categorizing the practices [70], with limited exploration of their effects beyond financial losses [49]. This leaves a research gap in our understanding of how predatory monetization impacts players' experiences, behaviors, and well-being. Our study addresses this gap by exploring **how players perceive the influence of predatory monetization in user-generated games,** highlighting its tangible effects on their gaming experiences.

To achieve this, we conducted an interview study with 23 adult players who have played on one or more of the following popular UGG platforms: Roblox, Minecraft, RecRoom, and Fortnite Creative. Through reflexive thematic analysis, we identified three key ways in which players perceive the influence of predatory monetization: 1) felt manipulation—players recognize and express feelings of being misled or pressured into making unintended purchases; 2) monetized interpersonal relationships—players experience social interactions and friendships being shaped by monetization, altering the way they engage with others; and 3) risk perception and mitigation strategies—players become aware of financial risks associated with monetization practices and develop adaptive strategies to manage or avoid them.

Building on these findings, we discuss social monetization: how predatory monetization extends beyond microtransactions, leveraging social dynamics to pressure players into making

purchases. We further reflect on the ecosystem of predatory monetization, illustrating how the design practices facilitate and sustain predatory monetization, and how inadequate risk mitigation strategies in family settings may lead to potential negative consequences for players, especially child players. Additionally, we propose design implications aimed at mitigating the negative consequences of predatory monetization, offering insights into how different stakeholders can better support ethical monetization practices and family-supported gameplay on UGG platforms.

Although our focus is on the UGG context, our findings may have broader implications for the game industry, particularly regarding monetization practices in social games. Our contributions to the CHI PLAY community include 1) identifying the influences of predatory game monetization on players' behaviors, both online and offline; 2) highlighting how players perceive social monetization and the ecosystem of predatory monetization; and 3) demonstrating how design practices can serve as the mechanisms through which predatory monetization is delivered to players.

2 Related Work

In this section, we first review literature about predatory game monetization and its practices, which push players into unwanted purchases. Second, we review monetization strategies within UGG platforms.

2.1 Predatory Game Monetization Hidden Beneath Player Motivation to Play

Video game monetization has evolved from a straightforward one-time purchase—where players buy a complete, physical game—to a complex ecosystem that extracts revenue through microtransactions in freemium games [46]. Freemium games mean games are free to download and play but are meticulously designed to encourage spending on microtransactions. Examples include expansion packs, cosmetic add-ons, in-game currencies, loot boxes, and subscriptions [44], transforming nearly every aspect of gameplay into an opportunity for continuous monetization [7]. Such monetization strategies are closely intertwined with players' motivations to play. In this section, we examine how existing literature conceptualizes player motivation and explore how predatory monetization strategies are crafted to exploit these motivations, subtly luring players into making purchases.

2.1.1 Player Motivation to Play. The key to successful monetization lies in a deep understanding of players' motivations. Research indicates that the internal motivations for purchasing different in-game items vary. Functional goods enhance gameplay by facilitating immersive "flow" states [19, 33:2]. Probability-based goods like loot boxes evoke anticipation through randomized rewards [19]. Ornamental goods such as character skins serve as tools for self-expression and social prestige [18, 19].

In addition to internal motivation, social dynamics serve as an external factor that influences players' purchase decisions, especially in multi-player online games (MOGs). The gaming community is inherently social, and players are influenced by the opinions and behaviors of their peers. Research indicated that when players observe their friends or respected figures within the community holding exclusive virtual items, their own willingness to purchase increases significantly [42, 84]. In strong-tie friend groups, this effect is magnified. A player may feel compelled to buy an item simply because most members in their group already have it [89]. As such, game purchases become as much about social identity and group belonging as it is about the gameplay itself. Based on these social dynamics, purchasing ornamental goods is not only based on internal motivation but also on how players wish to be signaled who they are [18]. This phenomenon is deeply intertwined with the broader social motivations for purchase, which include a desire for status and prestige. In MOG, players are highly motivated to avoid being

perceived as newcomers or outsiders, and this desire to belong and excel within their social groups drives them to invest in enhancements that signal competence and status [11, 38, 57].

2.1.2 Predatory Monetization Strategies Exploiting Player Motivation. While some game companies successfully align diverse player motivations with their business goals, creating mutually beneficial outcomes for both profits and player satisfaction, many others have increasingly exploited these insights to implement monetization strategies that are now widely criticized as predatory. Predatory monetization refers to purchasing systems that obscure or delay the full financial impact until players are already invested both financially and psychologically [49]. It operates as a broad system that drives players to make unwanted purchases. Petrovskaya and Zendle [70] identified 35 predatory monetization practices. One type of practice is the in-game currency systems [70], where players must first purchase in-game currency before spending it on in-game items. Design practices like multi-layer currency and fixed rates for in-game items add additional conversion steps to obscure the real-world cost of purchases, making it harder for players to track their spending accurately [70]. Another type of predatory monetization practice is manipulative game dynamics that drive spending. For example, some design practices offer players the choice to either grind—doing repetitive and monotonous tasks—or pay, thereby pressuring them into making purchases instead of grinding to obtain in-game items [56].

Predatory monetization can be implemented through various means, ranging from standard payment procedures to game dynamics to sophisticated design patterns. One primary means of enacting predatory monetization is deceptive design patterns. Deceptive game design patterns are design patterns that are crafted to take advantage of a player's time, money, and psychological predispositions, deceiving them into making decisions that benefit the game company while ultimately harming their interests and often occurring against their will [85]. Among all deceptive design patterns, monetary deceptive design patterns represent the direct implementation of predatory monetization ideas through game design. M*onetary deceptive patterns* [85] refer to patterns that manipulate players into spending more money than they originally anticipated or intended. For example, mechanisms such as "pay-to-win" options manipulate players to bypass difficult gameplay sections by spending real money [31]. Similarly, loot boxes, which simulate gambling by offering randomized rewards, tap into the human propensity for risk and reward, often leading to unintended, excessive expenditures [35, 76]. The psychological pull of obtaining a rare or coveted item from loot boxes—driven by the promise of enhanced status or performance—can be incredibly potent [52].

As a consequence of the predatory monetization practices in video games, players endure negative emotions—frustration, regret, and exploitation—from manipulative game mechanics [36], incur substantial financial losses [58], and remain vulnerable, especially younger users who recognize the deception but lack the means to counteract it [12]. Moreover, such practices may damage companies' reputations, undermine fair market competition, and stifle innovation by prioritizing profit over engaging content [40, 58].

Ethical concerns over predatory monetization practices have led to calls for change, as critics argued these practices infringe on consumer and human rights [8]. In some cases, players even seek a "sugar daddy" to cover in-game expenses [39], highlighting the exploitative nature of these models and prompting proposals for game companies' self-regulation, transparent microtransaction notifications, and refund entitlements to safeguard vulnerable players [50, 61]. Game critiques further drove efforts to reform monetization practices and pushed for legal changes in the industry [69].

Previous research has examined the categories of predatory monetization practices in gaming [70] and the means by which predatory monetization can be implemented [40, 85]. However, few studies have investigated their actual influence on players, besides merely financial risks [49]. Therefore, there is a research gap in understanding how predatory monetization influences players. Our study addresses the gaps by examining how players perceive the influence of predatory monetization.

2.2 Monetization Strategies in User-Generated Game

User-generated games (UGGs) are games created, published, and disseminated by independent game creators through their own channels on UGG platforms [88]. Popular UGG platforms include Minecraft [91], which allows creators to customize servers with unique rules; Fortnite Creative [94], where creators build custom maps and rules using provided assets; and Roblox [92] and RecRoom [93] which offer extensive programming tools for creators to create and publish their games.

Although UGG platforms empower creators to produce diverse gaming experiences, some gaming experiences also come with predatory monetization practices [78]. Every UGG platform enforces its own monetization strategies, which refer to the planned approaches and methods that platforms implement to generate revenue from their games. For instance, Minecraft lets creators sell custom clothing and offer paid servers [60]. Fortnite Creative pays creators based on game activity [99] and Roblox compensates creators according to the time premium players spend in their games [98]. Both Roblox [96] and RecRoom [97] allow creators to directly monetize their games through microtransactions such as paid items, passes, and loot boxes. Among all the platforms, Roblox has received the most criticism for its predatory monetization practices targeting young players. For example, Kou and Gui [53] identified ubiquitous microtransaction designs—such as intrusive pop-up ads and loot boxes—that manipulate young players into making purchases. King et al. [51] highlighted players' concerns over loot boxes, multiple currencies, and bulk purchase mechanisms as examples of predatory monetization practices in freemium 3D games, with Roblox games serving as a notable example.

While previous research has identified predatory monetization practices on platforms like Roblox, a significant gap remains in understanding how these practices manifest across the broader spectrum of UGG platforms. Given that low entry barriers for game creation may exacerbate predatory monetization issues [78], it is critical to explore their impact on player experiences, particularly on UGG platforms, where creators can embed monetization practices in game design with minimal expertise. Existing studies have largely focused on isolated cases of UGG platforms (e.g., Roblox) [53] or have quantitatively investigated examples of predatory monetization in freemium games [51]. Consequently, there is a research gap in qualitative investigations of players' perceptions of these practices across multiple UGG platforms. Our study addresses the gap by interviewing players about their experiences with predatory monetization across various UGG platforms, aiming to reveal both the prevalence of these practices and their tangible influence on players.

3 Methodology

In this study, we carried out semi-structured interviews with 23 adult players of popular UGG platforms to explore **how players perceive the influence of predatory game monetization in user-generated games**. We then analyzed the data using a reflexive thematic analysis [23]. Before collecting data, the university's Institutional Review Board (IRB) office granted approval for the study.

3.1 Data Collection

We used a pre-screening survey to collect potential participants' demographic information and determine their eligibility for the study. To qualify for this study, participants needed to speak English or Chinese, be over 18 years-old, live in the U.S., and have experience playing on at least one popular UGG platform—Roblox, Minecraft, Fortnite Creative, or RecRoom.

We initially posted the pre-screening survey on campus and on social media. After noticing through the pre-screening survey that a few participants played Fortnite Creative and RecRoom, we encouraged eligible participants, especially those familiar with these games, to share the study

with others they knew who also played on these UGG platforms. This referral-based recruitment approach is called snowball sampling, a common recruitment method in qualitative research characterized by networking and referrals [66], to help reach participants with the target characteristics, especially those less easily accessible [63]. Participants were asked to distribute the pre-screening survey link to friends or family members who might be interested in participating. We then iteratively selected participants based on their demographic backgrounds and the UGG platforms they played on, in order to diversify our sample pool. Participants' ages ranged from 18 to 29. Appendix A includes detailed demographic information and the games they played.

In this study, we employed reflexive thematic analysis (RTA) as our methodological approach (see the following subsection for detailed data analysis procedures). RTA, as conceptualized by Braun and Clarke [15], positions the researcher as an active participant in the analytic process, with themes viewed as interpretative constructs rather than inherent features waiting to be discovered within the data [15]. Accordingly, the notion of data saturation—typically defined as the point at which no new insights emerge—is considered incompatible with RTA [14]. Saturation implies a finite and objective endpoint to analysis, which stands in contrast to the iterative, subjective, and reflexive nature of RTA. Given this stance, a pragmatic approach is to determine a sample size based on the expectations of key stakeholders, such as peer reviewers and disciplinary norms [14]. We recruited a total of 23 participants, which aligns with established practices in qualitative research within the Human-Computer Interaction (HCI) field, where sample sizes typically range from 12 to 30 participants [21].

The first author conducted and recorded all interviews via Zoom between March and May 2024, with participants' consent. Using semi-structured interviews, we asked open-ended and follow-up questions [27] to encourage participants to naturally share their experiences with UGGs. The interview protocol is outlined in Appendix B. Our interview protocol mainly included the following interview questions 1) general information about the UGGs participants played, including frequency and preferences; 2) participants' experiences with the socialization aspects of UGGs, 3) participants' experiences with the financial aspects of UGGs, 4) participants' safety concerns in UGGs, 5) participants' perceptions of the uniqueness of UGG platforms. The duration of our interview ranged from 30 minutes to one hour. The interview durations varied based on participants' willingness to share and their ability to recall past experiences.

We transcribed all interview audio using Zoom. We stored and analyzed transcripts and coding data in Word and Excel on password-protected computers. Each participant received a $20 Amazon Gift Card as compensation. To protect their privacy, we refer to participants using code names (e.g., P1, P2, P3, ...).

3.2 Data Analysis

We conducted a reflexive thematic analysis (RTA) [23] of the interview data**.** Following the six phases of RTA [15], the first and second authors independently reviewed each transcript to familiarize themselves with the data and identified initial ideas related to player safety, which was the primary focus of this study within a larger project. All the authors then discussed potential directions and emerging themes, ultimately reaching a consensus that predatory game monetization was the most compelling and richly identified themes. This topic intersected with many of the broader issues raised in the interview questions, such as monetized socialization, financial decision-making, and game safety. As a result, we selected predatory game monetization as the central focus of this paper.

Next, the first and second authors independently reviewed and coded transcripts, identifying quotes that reflected players' experiences with predatory monetization, generating over 135 initial codes. After initial coding, all authors held meetings to iteratively discuss possible themes. They agreed that the data primarily reflected player experiences about the influence of predatory

game monetization on them. Next, all four authors worked together iteratively to resolve any disagreements in the first-level codes. In the following phase, the four authors reviewed, refined, and discussed second-level codes and emerging themes from the first-level codes, reaching an agreement for internal homogeneity and external heterogeneity [67].

The analysis resulted in 36 second-level codes, 10 subthemes, and 3 overarching themes (see Appendix C for the complete list of codes and themes). The research team then engaged in multiple rounds of discussion to finalize the names and definitions of these themes. In the final phase, the first author carefully selected the most representative quotes for each second-level code. The final thematic map identified three key themes: 1) felt manipulation from monetization strategies—players develop a sense of being subtly influenced by monetization practices, leading to spending decisions driven by manipulative monetization strategies rather than personal choice; 2) monetized interpersonal relationships—social pressures within the game encourage spending, as players feel obligated to make purchases to maintain relationships, support friends, or keep up with in-game social dynamics; and 3) risk and risk mitigation in monetization—players recognize the financial risks introduced by predatory monetization and adapt their behaviors accordingly, developing strategies to manage risks. Following best practices in qualitative research [59], we approach coding as an iterative process for developing themes rather than as a rigid measurement tool. As a result, calculating inter-rater reliability is not recommended or appropriate for our study.

4 Findings

In this section, we present three key influences that UGG players perceive as resulting from predatory monetization: felt manipulation, monetized interpersonal relationships, and the experience of risk and risk mitigation strategies in gaming.

4.1 Felt Manipulation from Monetization Practices

Participants described moments where their in-game behaviors, whether purchasing, continuing to play, or shifting attention, felt subtly manipulated by the monetization practices rather than entirely voluntary. This felt manipulation [37] created frustration, disappointment, or a sense of lost agency, as participants recognized how the practices prioritize profit over their genuine engagement.

4.1.1 Uncertain Value Purchases. UGG players may feel a sense of uncertainty when purchasing paid games on UGG platforms, as the decisions are shaped by a mix of visuals, anticipation, and limited information rather than concrete guarantees of quality. This uncertainty can make players feel manipulated, as they are encouraged to take a risk without assurance that the game will meet their expectations:

> *"There's no guarantee—some games are free, others paid. The image provided might make them seem better, but it could be unrelated. You just look for the best." P5*

Although most games on UGG platforms are free to play, some require paid access. P5 highlighted the challenge of evaluating the paid games before purchase, as promotional materials can set expectations that do not always align with the actual experience. This ambiguity forces players to rely on intuition or past experiences, making game purchasing feel like a gamble rather than an informed decision.

The risk is amplified by the fact that most purchases on UGG platforms are non-refundable. Unlike other digital goods or services that offer refunds for dissatisfaction, some UGG platforms leave players with no recourse if they find the paid experience disappointing. This lack of flexibility makes players more cautious, yet it also pressures them to make the most of their purchase, even when they are dissatisfied:

> *"I heard it was a good game, so I bought it. At first, I didn't like it... My cousins and I played a lot during quarantine, which made me like it more. Initially, I didn't enjoy the work-to-earn aspect, but I got used to it." P19*

Paying for a paid UGG can create an obligation to play, even when the game does not immediately meet expectations. For P19, the initial experience was not enjoyable, yet continued play, influenced by the cost of entry and social engagement, gradually changed their perception. This example reflects the sunk cost fallacy [41], where players feel compelled to justify their purchase by persevering through gameplay, even if their initial reaction was negative. Over time, the sunk cost fallacy can blur the line between genuine enjoyment and an obligation to play, reinforcing how monetization practices manipulate players to play in ways they may not fully recognize at the time of purchase.

4.1.2 Undermined Player Investment. UGG players may feel that their investment has been undermined when game creators make strategic changes that diminish the value of their initial investment. One major frustration arises when UGGs that were once paid become free-to-play, making those who initially purchased the game feel as if their investment has been devalued:

> *"I've seen people on TikTok upset about it. Some felt paying for the game gave them a sort of elite status. Others invested hours working to earn money and build their houses. And then all of it is just going to be free." P3*

Players may see purchasing the game as not only an entry ticket but also a marker of exclusivity, giving them a sense of elite status. When the game later became free, this perceived exclusivity may disappear and bring frustration. For P3, the frustration stemmed from the fact that players had already committed significant time and effort into a system they believed would retain value. The shift to a free-to-play model meant that their prior work—whether financial investment or in-game progression—was no longer as meaningful. The example suggests that monetization strategies in UGGs may evolve, but creators may overlook how the shifts in monetization affect players' perceptions of fairness and value.

Beyond pricing, UGG players also feel manipulated when promised updates or improvements never materialize. This is particularly evident in long-running Beta versions of games, where creators use the label of "Beta" to justify incomplete features, lack of polish, or ongoing monetization:

> "*It was in Beta for about six years with no updates at all. Now it's free. I feel like they would have made it free to beta players." P3*

Players who paid for early access to the Beta game expected their investment to be reciprocated with updates or at least some form of exclusivity. When that expectation is not met, players may feel their investment in the Beta game was undermined by the creators' lack of updates and eventual transition to a free-to-play model. P3 highlighted how the prolonged Beta period felt like a deceptive practice rather than a genuine phase of game development. For players who paid to access the game early, the expectation was that they were contributing to an evolving product. However, the absence of meaningful updates made them feel like their investment was simply a way for creators to profit upfront before ultimately making the game free, reinforcing feelings of manipulation and distrust toward monetization practices.

4.1.3 Forced Attention Shifts. UGG players may find that in-game purchase prompts and advertisements in UGGs disrupt their gameplay experience, creating moments where their attention is forcibly shifted from play to monetization. This constant intrusion makes players feel manipulated, as their focus is repeatedly diverted away from gameplay and toward transactions they may not have otherwise considered:

> *"I do think they're just kind of annoying because they take up like half of the screen sometimes. Sometimes, if you accidentally step over or something, it just keeps popping up." P3*

One of the most common frustrations comes from the intrusive nature of purchasing pop-ups, which can take over large portions of the screen, breaking immersion and hindering the fluidity of play. According to P3, the ads took up significant screen space and reappear with minor interactions. This type of forced attention shift can frustrate players who simply want to focus on playing the game, as it turns the act of navigation into a minefield of monetization triggers. The feeling of annoyance is amplified when these prompts disrupt critical gameplay moments. It feels as though the game itself is structured around nudging players toward purchases rather than creating an enjoyable experience.

Some players also noted that the pressure to spend money varies across different UGG platforms. Games on certain platforms are more aggressive in their monetization practices:

> *"I guess it depends. My experience in Rec Room was brief... but it was nice. The Roblox experience [i.e., game] feels worse because [Roblox] games always ask me to buy—Robux." P6*

Robux is an in-game currency used on the UGG platform, Roblox. P6's perspective highlights how some UGG platforms may maintain a balance between play and monetization, while others make spending feel like an almost unavoidable. In Rec Room, the monetization strategy felt less intrusive, allowing for a more relaxed, exploratory experience. In contrast, Roblox's frequent purchase prompts made the game feel more commercially driven, constantly reminding players of the need to spend Robux to fully engage with certain features. This persistent pressure creates a sense that play is secondary to monetization, further contributing to feelings of manipulation.

4.1.4 Accidental Spending. UGG players may perceive certain in-game payment systems as intentionally designed to manipulate them into spending money, particularly through deceptive interface design that encourages accidental purchases. The frustration is particularly heightened when these designs target younger players, reinforcing the idea that monetization practices exploit player vulnerabilities rather than supporting fair play:

> *"It's dumb because they pop up on your screen, and you have to close them. They're designed to get kids to accidentally click on them, redirecting straight to the purchasing page." P6*

One of the most common concerns is the way purchase prompts are positioned and timed to catch players off guard. Rather than providing clear and intentional purchasing pathways, the purchase systems on some UGG platforms use sudden pop-ups that redirect players to payment pages with minimal interaction. P6 felt this is a deliberate design choice, aimed at maximizing accidental clicks rather than creating informed purchasing decisions. P6's frustration highlights how these pop-ups are not just disruptive but strategically placed to capitalize on quick, reflexive actions, trapping players into unintended transactions. Younger players are seen as vulnerable to this design, as their instinctive taps and clicks can result in purchases that they did not fully comprehend or intend to make.

The issue of accidental spending has become so pervasive that some game companies have been forced to update their payment systems in response to legal and ethical concerns:

> *"In the past, Fortnite made updates to their payment methods and purchases because they got in deep trouble for targeting kids and causing unwanted purchases." P14*

The case of Fortnite serves as a notable example, where the company had to revise its purchasing methods following accusations of deliberately facilitating unwanted transactions, particularly among child players. P14 pointed out how external pressure, rather than internal ethical considerations, was the primary driver behind these changes. The fact that such updates

only occurred after legal repercussions suggests that deceptive payment practices are not isolated incidents but rather an embedded part of broader monetization practices. This reinforces players' perceptions that game platforms prioritize profit maximization over ethical design, making accidental spending feel less like a rare mistake and more like an intentional, manipulative design.

4.2 Monetized Interpersonal Relationships

Participants perceived that making game purchases on UGG platforms is essential for establishing or maintaining interpersonal relationships with both their online and offline social networks. Many participants felt pressured or manipulated into making purchases to maintain such relationships and believed that their relationships were monetized, forcing them to spend money not just for personal enjoyment but to maintain and enhance social connections.

4.2.1 Purchase to Fit In. UGG players may feel that they need to make purchases to maintain basic social dynamics in close friend groups or larger social settings. They felt pressured to buy items to avoid exclusion, gain acceptance, or match the social expectations of their peers:

> *"In Cops and Robbers, there's a purchase that lets players run faster than everyone else, making it easy to win. It feels like cheating and takes the fun out of the game… when kids see their friends with special upgrades, they may feel jealous or left out, pushing them to buy it too." P12*

P12 described their childhood experience playing *Cops and Robbers*, a roleplay game on *Minecraft*. Players can make a small purchase to run slightly faster than others, giving them a small advantage in movement. While this purchase is optional, P12 reflected their past feelings as a kid that young players can feel pressured to buy it because their friends had already done so. Seeing others with the upgrade in free-to-play UGGs—especially in games they were already actively playing with a group—led to feelings of jealousy and exclusion, pushing players to make the purchase just to fit in. This example illustrates how monetization practices drive players to spend money not necessarily for gameplay benefits, but to maintain their place within their friend groups.

The pressure to make in-game purchases extends beyond small friend groups to larger social settings, such as school communities. P3 described what happened to their younger sister:

> *"They were all talking at school about playing on Roblox later, specifically Welcome to Bloxburg [a Roblox game], and saying, 'Oh, you can't play with us because you don't have Robux.' I think that's a big reason why she wanted to join—just to fit in and play with them." P3*

Welcome to Bloxburg is a paid game on Roblox. P3 shared that their younger sister joined the game primarily because her schoolmates were discussing it and playing together. Children who didn't have access to the game were excluded from conversations in school, which probably made P3's sister felt left out. As a result, she purchased the game to join her schoolmates' activities. This exclusionary behavior highlights how the desire to fit in with larger peer groups—beyond just close friends—can drive young players to spend money. This example demonstrates how gaming monetization practices leverage the need for social belonging and group identity, driving young players to prioritize spending on games to maintain their inclusion within broader social settings.

4.2.2 Default Skin Stigma. UGG players may associate default skins with negative stereotypes, often perceiving those who do not purchase cosmetic items as inexperienced or not aligned with community norms. This stigma can lead to discrimination or exclusion, as appearance in the game becomes a marker of status and social belonging:

> *"I do think there's a bit of negativity in some games. There's a hairstyle that looks like bacon, and people call you 'Bacon Head' or refer to you as a noob. Even if you've been playing for five years and are an expert, some players won't want to play with you or be in your round just because you look like an inexperienced player." P3*

On the *Roblox* platform, how a player customizes their avatar is often seen as a reflection of their social standing within the game. P3 explained one of the most recognizable default hairstyles that resembles strips of bacon, leading to the widespread nickname "bacon head" on the platform. Players with this appearance were often labeled as "noobs" and may be excluded from teams or gameplay rounds, even if they had extensive experience and expertise. This default skin stigma is not incidental but rather ingrained in the culture of the game platform:

> *"I don't really feel like there's a competition on Minecraft to see who has the best character. I think that everyone just wants to play… On Roblox, you have to buy clothes and other items, and if you don't, people might think you're weird. It's just the culture of the game." P19*

P19 specifically noted that the skin stigma was not universal across all UGG platforms. While not purchasing outfits or accessories may make a player seem "weird" on Roblox, there was no competition over avatar appearance on Minecraft, and players were generally more focused on gameplay rather than avatar aesthetics. This suggests that the social pressures to spend money on customization are heavily influenced by the culture of the platforms. This comparison highlights how monetization practices intersect with the social expectations of the community players are in. In games where customization is a core part of the culture, players may feel pressured to make purchases to avoid discrimination and gain social acceptance. The design of the default skins can further reinforce the stigma:

> *"When I first got the game, the generic character they give you is kind of ugly. I asked my friend how to make my character look more normal, and she is like 'You're gonna have to spend money. People had to spend money to look normal, to get like a normal set of eyes, a normal nose, a normal mouth." P11*

Instead of viewing default skins as a neutral starting point, players like P11 perceived them as something to be fixed or upgraded. The mention of needing to spend money just to "look normal" suggests that the default skins are deliberately designed in a way that makes them unappealing, further pressuring players to invest in customization. P11's statement highlights that players feel customization is a necessity rather than an option. This reinforces a pay-to-fit-in mentality, where players must spend money to align with what is considered aesthetically acceptable on the platform.

4.2.3 Granted Elite Status. The discrimination and marginalization of players with the default skin create a social hierarchy in which purchasing in-game items is not just about customization but also about gaining status and recognition within the player community. As a result, players who invest in cosmetic upgrades—such as clothing, accessories, and emotes—perceive their purchases as a means of securing an elite status in the player community:

> *"Yeah, different emotes—mostly just to look cool. If I thought something was funny, I could use emotes to do dances in the game. Other players would see me and think, 'Oh, this guy's cool, he spent money.' If I had a random teammate, they'd say it." P18*

P18 perceived that spending money on cosmetic items, including emotes, served as a way to signal social prestige. The ability to perform emotes, particularly dances, is not just about self-expression but also a form of social display that reinforces a player's higher standing. When P18 used emotes, other players perceived them as "cool" and immediately recognized that they had spent money. This recognition underscores the belief that financial investment translates directly

into social capital. This example reflects a broader culture of materialism in video games, where the possession of premium items is equated with elite status.

Microtransactions that grant players elite status in games are not limited to cosmetic upgrades like skins and emotes:

> *"... on a server run by a YouTuber I liked. It was the one I played Hunger Games on, and I bought their version of a battle pass. It let me access games quicker since lobbies filled up fast—24 players max. Without it, I'd get kicked out frequently because so many people were trying to join. It was really frustrating, sometimes it took me 10 minutes just to get into a game. Back then, the server was really popular because the YouTuber was there, and I just wanted to play so badly." P13*

In Minecraft, players can join various servers to engage in different games, such as Hunger Games, but some of these servers have limited capacity, creating competition for entry. P13 described their experience trying to join a highly popular server. Due to the server's popularity, it was often full, requiring long wait times before gaining access. To avoid this frustration, P13 purchased a pass that granted them priority access—allowing them to immediately replace another player and join the server without delay. This paid access, situated within a predominantly freemium gaming environment (i.e. UGG platforms), placed non-paying players at a disadvantage, reinforcing a financial hierarchy where spending money grants elite status, allowing players who paid to have the priority in gameplay.

4.2.4 Family Bonds Investment. Participants felt a need to strengthen or maintain family relationships through game purchases on UGG platforms, even though doing so may not always align with their genuine interests, highlighting how monetization in games extends beyond individual choice and influences family-driven social interactions:

> *"You could buy it to play a game, which I know I've done—definitely for my nephew because he wanted to play certain games that required payment to access. But I'm not sure if I ever bought it for a game I personally wanted." P5*

P5 acknowledged purchasing access to certain UGGs to accommodate their nephew's interest in playing. This demonstrates how financial investment in gaming can go beyond self-motivation, serving as a means of preserving relationships and bonding with loved ones, even when the purchases do not align with one's own gaming preferences. This example highlights how family-driven investment in games prioritizes meaningful connections over personal enjoyment. Sometimes, investing in a game for the sake of family connections can conflict with personal enjoyment:

> *"My sister had friends from school who played it, so she wanted to buy it to play with them. I wanted to play with her, so I bought it too... Once I bought it, I didn't see what was so exciting about it, but I know many people buy Robux just for that game. I do regret it—I could have used the Robux to buy outfits for my character instead." P3*

P3 purchased the game primarily to play with their sister, who was motivated by her own social circle. However, after making the purchase, P3 realized they did not find the game particularly enjoyable, leading to feelings of regret over how their Robux was spent. This regret highlights the tension between the pressure to participate in shared gaming experiences with family and the actual value derived from such purchases. P3's statement reflects the complexities of socializing-driven spending in gaming, reinforcing the idea that financial decisions in games can sometimes feel like sacrifices when they do not align with personal interests. This further illustrates how monetization in gaming extends beyond gameplay, shaping social interactions and decision-making in ways that may later lead to regret.

4.3 Risks and Risk Mitigation in Monetization

The strong desire for in-game currency can drive UGG players to engage in risky purchasing practices and expose them to other forms of risk, such as scams or excessive spending. However, family members can play a crucial role in mitigating the risks.

4.3.1 Risky Purchasing Practices. Some players, especially younger ones, have a strong desire for in-game currency, which may drive them to seek alternative means of acquiring it, potentially leading to risky behaviors:

> *"Kids will do anything to get it, committing to deals like, 'If you PvP me and lose, give me your item' or trading valuable swords. Since it's so expensive... Some can ask their parents, and if their parents are willing, they just buy it. It's their decision, but many kids ask because it's a trend." P23*

Players' strong attachment to in-game currency fosters a culture on some UGG platforms where young players are willing to exchange almost "anything" in pursuit of in-game currency (i.e., Robux). In such an environment, players who have the in-game currency often leverage their advantage by pressuring those without it to comply with their demands in exchange for the currency. One common example, as P23 mentioned, was PvP (Player vs. Player) battles, where players agree that the loser must give the winner whatever they request—typically Robux or valuable in-game items by trading (e.g., exchanging a low-value item for a high-value one through the game's trading system). As this trend grows, peer-driven trades and desperate attempts to obtain Robux have become increasingly common. This culture is particularly concerning, as it creates an environment where young players are vulnerable to manipulation and exploitation by those who seek to take advantage of players' eagerness for Robux, increasing the risks of unsafe interactions.

Risky practices not only happen online but also in offline contexts. A participant explained a story that happened between them and their younger brother:

> *"He actually stole my credit card and used it. It wasn't a lot of money, but I noticed right away, and he got yelled at. Then he started to earn his own money, and he spend frequently [on Roblox]" P17*

Young players often do not have the means to earn their own money to buy in-game currency. Because of this, some, like P17's brother, may take risky actions—such as stealing a family member's credit card—to purchase Robux. His desire for in-game currency was so strong that he was willing to cross a line, even if it meant breaking the trust of someone close to him. Although he later found a way to earn his own money, the fact that he resorted to theft at first highlights how game monetization can encourage risky behavior beyond the game itself and lead to conflicts within families. It raises concerns about how game monetization influences young players' decisions, sometimes pushing them toward risky behaviors.

Risky practices offline not only happen within the family but also between families:

> *"We used the Apple accounts of friends who already had Minecraft, logging in on our iPads with their passwords and usernames to download the game for free. These accounts belonged to our friend's parents, so it was a pretty bold move for a kid just to play Minecraft. Their parents never really found out—or maybe they did since their accounts were on unauthorized devices. Eventually, we bought Minecraft ourselves because redownloading it over and over got annoying when the app would disappear." P23*

Minecraft is a paid game available through mobile application store (i.e., Apple accounts). Once purchased, it can be downloaded and played on any device linked to that account. Since P23 could not afford the game but their friend's parents had already purchased it, P23 and their friends

secretly used the friend's parents' Apple account and password to log in on P23's device without their friends' parents' permission. At the time, P23 assumed the parents might not have noticed or, at the very least, did not confront them about it. However, looking back, P23 now realized that this behavior was risky. Using someone else's account without consent is not just a breach of trust—it also exposes both parties to security and privacy risks. For example, for the account owners, this could lead to unauthorized purchases and exposure of personal information. This example highlights how game monetization can push young players toward behaviors that, even if unintended, can have ethical and security consequences.

4.3.2 Care from Near-Age Relatives as Risk Mitigation Strategy. We observed that while parents may have difficulty understanding modern game monetization, older siblings and near-age relatives can play a crucial role in helping young players manage their spending habits and avoid online risks. Some participants expressed concerns about whether parents fully grasp the monetization practices used in today's popular UGGs:

> *"I don't think our parents really understand* Roblox *and how it works. They knew it was about designing a character but didn't realize you had to spend money on the game [platform]—they thought everything was free. When my sister and I were younger, they bought us memberships for Club Penguin and Animal Jam, so I think they see it the same way now, like it's just another membership type of thing." P3*

Unlike traditional games that relied on straightforward membership models (i.e. purchasing for monthly pass and playing the game), UGG platforms use microtransactions, encouraging frequent purchases for cosmetics, in-game currency, and other digital items. This gap raises questions about how well-equipped parents are to guide their children in making responsible financial decisions on UGG platforms and to regulate their children's spending effectively. Another participant, P6, also expressed similar concern of their younger cousin's exposure to in-game purchases at an early age:

> *"...her parents have spent even more—probably around $50 based on all the cosmetics she has... I do think she's too young to spend money on games. I even told my aunt she shouldn't be buying her Robux, but younger kids are exposed to games way earlier than I was." P6*

P6 observed that their younger cousin frequently asked her parents for Robux, leading to a considerable financial commitment on a single platform just for cosmetics—an amount that feels significant for a child's in-game purchases. Worried that she was developing an unhealthy habit of excessive spending on games, P6 took the initiative to warn their aunt. Since younger players often rely on their parents to fund their in-game purchases, the burden of financial decision-making shifts to parents who may not fully understand the long-term impact of game monetization and may inadvertently reinforce spending behaviors by giving in to repeated requests. At the same time, P6's actions demonstrate how near-age relatives, particularly older cousins, can play an active role in mitigating these risks by raising awareness and encouraging responsible spending. While parents may struggle to set boundaries, informed family members can intervene by offering guidance, questioning excessive spending, and promoting financial literacy. P6's concern for their cousin reflects a broader effort to counteract the normalization of digital spending and highlights the potential influence of family support in fostering healthier gaming habits.

Beyond cousins, siblings—who share an even closer relationship—can play a more direct role in mitigating financial risks in games:

> *"When I was younger, I did consider doing them [purchasing in-game currency on scam websites], but fortunately I didn't... I talked about these suspicious websites with my brother...usually he would comment on that." P1*

When P1 was younger, they encountered websites offering in-game currency at unbelievably good deals. Tempted by the desire to in-game currency, P1 considered getting in-game currency from the suspicious website but decided to discuss it with their older brother first. Their brother stepped in, warning them that such offers were likely scams and helping them avoid potential risks. This example highlights the important role that siblings play in guiding young players toward safer online behavior. Older siblings and close-age relatives, who may be more familiar with gaming trends, can serve as a crucial bridge—helping younger players make responsible financial decisions and recognize potential risks before they escalate. Unlike parents, who may have limited knowledge of game designs and monetization practices, close-age family members often share similar gaming experiences, making their advice more relevant and relatable.

5 Discussion

In the findings section, we reported the perceived influence of predatory monetization on players, highlighting aspects such as felt manipulation, monetized interpersonal relationships, and risks and mitigation strategies. Based on these influences, we discuss how social monetization where players perceive that their social interactions are monetized by the game. We also reveal the ecosystem of predatory monetization practices that drive players' in-game purchases and lead to potential risks. Additionally, we propose design implications aimed at mitigating the risks posed by predatory monetization practices.

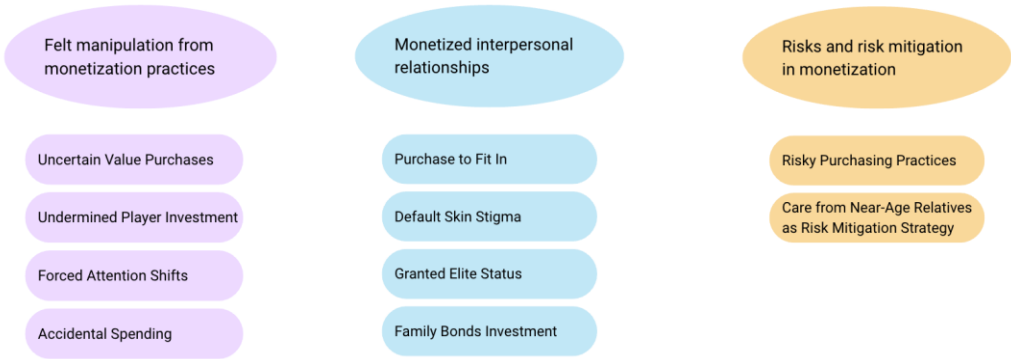


Figure 1. A summary of finding themes

5.1 Social Monetization in Games

In this section, we discuss how UGG platforms, as a type of multi-player online games (MOGs), are not only sources of entertainment but also spaces for social interactions, where microtransactions intersect with group dynamics rather than individual decisions. Our findings highlighted that UGG platforms operate as social games where players primarily seek to strengthen their interpersonal relationships. While prior research on MOGs has largely focused on in-game or online community interactions—often highlighting social features such as gifting to enhance socialization during gameplay [10, 65, 81]—few studies have treated MOGs as games that players engage with primarily to socialize and maintain interpersonal connections [34, 45]. Some scholars have recognized the potential of MOGs as social tools, particularly for older adults seeking to maintain relationships with younger family members [26, 86]. Zhang and Kou [87] further observed that players often engage with MOGs in ways shaped by their offline contexts, such as coordinating gaming schedules to spend time with friends. Building on the idea of compromising their gaming schedules with friends, our findings further revealed that players compromise their game choices to match the preferences of their offline social network. For

example, some participants were willing to purchase a game solely to play with their family members, even if they were not initially interested in the game. Similarly, participants observed that children often feel compelled to play certain games to integrate into school-based social groups and participate in peer conversations. This also aligns with recent news reporting that "children have no one to talk to if they don't play with others" [24], which highlights how, for Gen Z and Gen Alpha, games may function as a crucial steppingstone for fitting into larger social groups in real life. Consequently, MOGs like UGGs are expanding beyond their traditional entertainment role, emerging as social games for fostering offline social interactions and strengthening real-world relationships.

Building on the understanding of UGGs as social games, we observed that players perceived their social interactions as being monetized by the game—a phenomenon we term **social monetization**. Social monetization creates pressure for players to make in-game purchases as a means of maintaining and strengthening their real-world social connections.

5.1.1 Socializing in Different Communities. Building on previous research that identified pressure to make in-game purchases as stemming from formal in-game social groups and informal connections [13, 74, 82], we discovered that the pressure originates from a broader range of sources. First, pressure is not only exerted by strong-tie relationships, such as close friends, but also by **weak-tie relationships**, such as schoolmates and family members. While Wang et al. [82] quantitatively compared the influence of strong-tie and weak-tie relationships on players' purchasing behavior, our study provided qualitative insights into how weak-tie relationships influence the purchase behaviors. Specifically, we found that weak-tie relationships create an expectation for players to purchase game access for maintaining and enhancing social interactions.

Second, rather than emanating solely from niche online social groups where players gather for a specific reason [74], pressure also comes from the **broader game community and culture** — including casual interactions with strangers. For example, players may experience discrimination for using default skins, thereby compelling them to purchase skins to avoid social exclusion. As such, the pressure is not limited to friends or specific social groups but can come from anyone in the game. In sum, pressure from both the broader gaming community culture and weak-tie relationships influences players to purchase in-game items or game access to fit into both the game culture and weak-tie social circles.

5.1.2 Maintaining Social Standing by Game Designs. Given the perceived social monetization, players often spend money not solely for personal enjoyment but to maintain their social standing and avoid exclusion. Certain game monetization practices further amplify players' intention to maintain their social standing. One notable example is the introduction of **paid-access features** on predominantly free-to-play UGG platforms. Unlike traditional upfront paid games—where only paying players form a community—UGG platforms bring all players into a single, integrated community. This fosters strong social ties, which in turn have a greater influence on spending decisions. Consequently, players who don't purchase the game may experience a heightened fear of missing out (FOMO) when community discussions focus on games requiring additional payments, compelling them to spend money to avoid social exclusion. As a result, players feel pressured to purchase the game as a group member of the game community rather than making independent purchase decisions.

Besides paid access to games, **in-game social status design** also serves to heighten in-game social pressure and drive player purchases. While our findings aligned with previous research that has identified skins as a representation of social status—primarily motivating players to purchase them for self-expression and prestige [38, 39]—our findings also reveal additional ways to monetize social status. For example, certain games deliberately create social hierarchies by granting privileges—such as the ability to remove other players from a server—to those who make purchases, thereby reinforcing their elevated status. This design increases the allure of upgrading,

as enhanced influence and control become desirable social assets. The focus shifts from purchasing individual items to buying into a higher social status that grants the power to control other players' ability to participate in the game. In such environments, players who make purchases tend to form tight-knit circles, frequently playing together and reinforcing group loyalty. Meanwhile, players who don't make purchases feel increasingly marginalized, which may drive higher conversion rates as they seek inclusion, and the social asset associated with higher status.

5.2 UGG Platform Affordance

Platform affordances refer to the perceived or imagined properties of platforms, arising from the interplay of technological features, social dynamics, and contextual factors, which both enable and restrict particular ways of using the platforms [71]. We observed two UGG platform affordances that contribute to the rise of predatory monetization.

The first platform affordance is the **integration of advertisements seamlessly into the gameplay experience** (e.g., [96]), in contrast to traditional games where ads appear outside of gameplay experiences (for instance, as a banner upon launching the game client or as a pre-roll video before gameplay [25]). This affordance enables predatory monetization practices, such as the intrusive ads described by P3, in which a player—while fully immersed in gameplay—may suddenly encounter an in-game advertisement prompting a purchase. This disrupts the natural flow of the game. On one hand, the sudden appearance of large pop-up windows can cause confusion and lead to accidental clicks on the purchase button, especially among younger players who may not fully understand the implications of the purchase prompt, as described by P6. On the other hand, when players are deeply engaged, their capacity for making careful, informed decisions may be diminished, potentially increasing their susceptibility to manipulative purchasing strategies. Most previous research on in-game purchases has focused on how the types of in-game purchases influence player purchase intentions [19, 20, 47] and what general factors affect purchasing behavior [32, 43, 54, 55, 90]. However, the influence of pop-up advertisements on purchase intentions has received comparatively limited attention. Some studies have suggested that well-designed pop-up ads can encourage in-game purchases [4], and others have proposed design implications to increase their effectiveness [3]. Nonetheless, further research is needed to understand how players experience pop-up ads and whether these ads contribute to impulsive purchases or post-purchase regret.

Another platform affordance is the **constraint of refunds for transactions made with in-game currency** (e.g. [100, 101]), unlike platforms that allow refunds for game purchases made with real currency [102]. On UGG platforms, transactions are typically carried out with in-game currency—for example, when purchasing skins or passes. Consequently, this affordance creates a grey area for predatory monetization practices where creators may not carefully ensure that purchases align with players' expectations. As such, players may make impulsive purchases during gameplay or be swayed by misleading descriptions and images, only to quickly regret the decision when the purchase fails to meet their expectations, such as P5. With no refund option available, they are left with no recourse.

Because of these platform affordances and the related predatory monetization practices, some players perceive malicious intent behind predatory monetization, such as unrelated images for ads, abruptly canceling beta versions, or neglecting game updates. To make it worse, when players express their frustrations on community forums and social media, some creators remain unresponsive, with accountability being sidelined.

5.3 Predatory Monetization through Deceptive Patterns

Our study showed that beyond the monetary deceptive patterns identified in previous research [40, 85], predatory monetization in UGGs has become an overarching practice that employs a diverse range of deceptive design patterns.

5.3.1 Social Deceptive Design Patterns. By **intentionally designing default skin options to be unappealing**, players like P3 and P19 perceived that game creators realize monetization through manipulative design patterns—leveraging **psychological discomfort and social pressure** to nudge players toward premium alternatives. For example, game creators may incorporate aesthetically unappealing elements, like an abnormal mouth or hair that is similar to bacon. As a result, players often avoid these defaults due to psychological discomfort or social stigma, nudging them toward purchasing premium, visually appealing alternatives.

Yet, aesthetic manipulation is not merely a psychological deceptive pattern, as previously noted [40]; it is also a social deceptive game design pattern. Social deceptive design patterns [85] refer to designs that exploit the inherently communal nature of gaming by creating scenarios in which players feel obligated to spend money and play games to maintain group standing or support friends. Prior research has shown that virtual luxury items and in-game skins drive players to purchase in order to signal higher social status [38, 39]. Emulating the allure of luxury brands, players like P18 and P13 perceived that game creators intentionally design purchasable items that signal high social status while default options are deliberately rendered as low-status. This intentional design approach actively cultivates social hierarchies between paying and non-paying players. By fostering closer connections among paying players and widening the gap with non-paying players, game creators intentionally amplify peer pressure and the FOMO, coercing players into spending money to "fit in" and maintain their social standing within the game community. In simple words, players may perceive aesthetic manipulation as a transformation of social dynamics into a powerful monetization tool, seeing how game creators exploit human psychology and social behavior to drive predatory monetization practices through both psychological and social deceptive patterns.

5.3.2 Psychological Deceptive Design Patterns. Players may perceive predatory monetization strategies as not only extracting revenue directly but also **exploiting psychological vulnerabilities**, creating a cycle of continued spending and engagement. We identified a **psychological deceptive design pattern** that perpetuates player engagement through deception. Psychological deceptive design patterns [76] refer to designs that are carefully designed with visual cues, auditory stimuli, and other sensory elements that direct players toward making impulsive decisions including purchases without fully considering the consequences. We found a design pattern that after making purchases, the design manipulates players by the sunk cost effect into continuing to play. Although this effect was once primarily associated with repetitive loot box purchases [22], our findings revealed that it extends to broader gameplay. Players feel compelled to keep playing to justify their financial investments, especially when platforms enforce rigid game currency rules that offer no refunds and use deceptive or unclear game descriptions. Consequently, even when games fail to meet expectations, players persist, indirectly benefiting creators—particularly on UGG platforms where playtime itself is monetized. Ultimately, players may perceive this case as a self-reinforcing cycle in which forced spending leads to further unwanted engagement. As they feel pressured to act against their true interests, they may see predatory monetization as being reinforced through psychological deceptive game design patterns.

5.4 Negative Consequences of Predatory Monetization

Due to the widespread presence of predatory monetization facilitated by platform affordances and deceptive patterns, the associated risks extend beyond financial concerns to include issues of

trust, privacy, and child safety. Previous research has primarily focused on the financial risks of excessive gaming and its impact on family members' mental health [79]. However, our study revealed that even merely the pursuit of in-game currency can lead to harmful consequences when predatory monetization is prevalent—for example, unauthorized credit card use can create significant financial liabilities. Moreover, these behaviors can result in breaches of trust among family members, such as when a credit card is stolen, or privacy issues emerge from secretly using someone else's Apple account to play games, thereby exposing sensitive personal information. These risks are further compounded when multiple families are interconnected through friendship networks; our data indicates that children sometimes share Apple accounts and passwords with friends, which can lead to privacy and security breaches that occur without parental awareness between families.

In addition, our findings demonstrate that children are frequently manipulated into engaging in specific actions to obtain in-game items or currency, regardless of parental financial support. This observation aligns with earlier research on the "sugar daddy" phenomenon, wherein players seek financial support from older individuals [39]. These phenomena raise alarming concerns about the potential for children to be exploited in other online contexts, including sexual solicitation, in exchange for in-game rewards.

5.5 Inadequate Risk Mitigation Strategy in Family Settings

Given the negative consequences of predatory monetization, implementing effective risk mitigation strategies is essential. Although our findings suggested that family members can help mitigate these risks, some participants perceived such strategies as inadequate within family settings—particularly when it comes to protecting children, who are especially vulnerable.

First, our data reflected that some **children may fail to recognize deceptive patterns or monetization strategies**. This aligns with prior research indicating that children are less aware of deceptive designs [72] and more vulnerable to predatory monetization [50]. In our findings, participants expressed concerns about how such monetization practices affect child players, drawing on both reflections from their own childhood experiences and observations of younger family members. Moreover, since children are still forming their identities, they are highly vulnerable to peer influence [16, 77], making them more likely to engage in accidental spending driven by FOMO or the desire to achieve elite status and fit in, such as the examples described by P12 and P3. As such, children's developmental stage may lead to a lack of ability to mitigate financial risks posed to them in games.

Second, multiple participants have expressed concern that **parents may not fully understand monetization practices** in freemium games like UGGs, compared to traditional monetization practices such as game pass subscriptions. As a result, their oversight of children's in-game financial decisions is often partial and insufficient to mitigate the risks posed to children. Although a recent survey indicates that parents communicate with their children about spending real currency on in-game purchases [28], it is still unknown if they aware how their children expend in-game currency. As a result, financial decisions regarding in-game purchases are frequently delegated to children without adequate oversight. Even if these virtual transactions may not pose significant financial risks for the family, they expose children to predatory monetization practices.

Lastly, the ability of **close relatives to intervene in or modify** a child's in-game behaviors often depends on the closeness of their relationship. Participants tend to follow advice on mitigating risks during play only when they trust the family member and share a close relationship—for example, with siblings. However, in relationships among extended family members, such as with cousins, it remains unclear whether parents implemented any changes according to their concerns and suggestions. Due to the more distant nature of cousin relationships, enforcing direct mitigation strategies—such as completely preventing play or strictly limiting playtime—can be challenging. The lack of authority among extended family

members makes it difficult to enforce protective measures, such as restricting gameplay or setting spending limits. As a result, these three factors—children's vulnerable developmental stages, limited parental intervention due to unfamiliarity with game monetization practices, and the challenges of enforcing strategies through extended family members—contribute to weak financial mediation within families, increasing children's exposure to predatory monetization practices targeting their in-game currency.

5.6 Design Implications

Social monetization is reflected in an ecosystem where the **affordances of monetization policy** enable predatory monetization practices through deceptive patterns, potentially harming players. When combined with **inadequate risk mitigation strategies** in family settings, vulnerable players face not only significant online financial risks but also potential harm to their offline social lives.

In this section, we propose design implications to mitigate these risks (see Appendix D for the summary). First, we call for ethical game monetization practices to support players in making informed financial decisions. Second, we advocate for advanced family-supported gameplay, encouraging family members and close peers to recognize and discourage child players' potential risky behaviors.

5.6.1 Ethical Game Monetization Practices for Informed Financial Decisions. Ethical game design—creating games that support player well-being, autonomy, and informed decision-making—is an increasingly important topic across the video game research [1, 48, 75]. While our study focuses specifically on the UGG context, it addresses ethical challenges—such as deceptive patterns and predatory monetization—that mirror broader issues across the commercial game industry [2, 49, 70, 85]. This section contributes to this wider conversation by considering how different stakeholders—game designers (i.e., UGG creators), game companies (i.e., UGG platforms), policymakers, and researchers—shape ethical outcomes. In the following, we offer design implications that are both general and specifically tailored to the UGG context.

Regarding the default skin stigma and granted elite status, game companies and designers should first adopt inclusive default settings that respect players' social needs rather than exploit them. Default options—such as avatars or skins—should be aesthetically appealing and customizable, avoiding the reinforcement of social hierarchies that pressure players to purchase premium upgrades. For example, rather than using default skins or visual markers that may induce feelings of exclusion or discrimination (e.g., the "bacon hair" style), game companies and designers should offer neutral, high-quality designs that do not stigmatize non-paying players. To help reduce associated stigmas, companies can also actively promote these defaults—for instance, by encouraging influential community members, such as popular YouTubers, Streamers, or top players, to use them. Second, companies should routinely examine social dynamics and hierarchies within their communities and make targeted design adjustments. A small change, such as replacing a default hairstyle with a more neutral option, can reduce appearance-based discrimination. In UGG context, this responsibility also extends to UGG creators, who should regularly assess social hierarchies and group dynamics within their games to foster more inclusive environments. To incentivize such efforts, UGG platforms could consider providing creator dashboards that offer statistical data, which may help identify potential social hierarchies embedded in cosmetic items and other game elements. Third, to further support this effort, game companies might consider adding features that allow players to report discrimination or exclusion driven by in-game design choices. In UGG context, UGG platforms could collect this data and relay it to creators through creator dashboards, enabling them to make informed adjustments to promote more inclusive game environments. Collectively, these strategies not only address ethical concerns related to predatory monetization but also empower players to express themselves authentically without being pressured to conform to narrow social expectations.

Another crucial aspect of ethical monetization is the implementation of fair and transparent refund policy for transactions made with in-game currency. Some game platforms such as Steam allow players to request refunds for full game purchases [103]. However, other game companies such as UGG platforms do not offer the same protection for in-game currency transactions. Given that in-game purchases can be made impulsively by misleading predatory monetization practices or socializing needs, game companies should establish clear refund policies that allow players to reverse unintended or regrettable transactions. In UGG context, where in-game currency is directly tied to creators' revenue and transactions, platforms could implement features such as a trace-back mechanism or a waiting period before currency is transferred to creators' accounts, providing time to address potential disputes. Ensuring that players have the ability to request refunds for in-game currency purchases promotes financial responsibility and protects consumers from financial risks.

Lastly, game companies should enforce stricter regulations on in-game advertisements to ensure a less intrusive and more player-friendly experience. We found multiple cases where games rely on aggressive advertising practices, such as disruptive pop-up ads that interrupt gameplay, which can frustrate players and pressure them into making purchases. These findings align with recent reports highlighting cases of young players being manipulated into, or accidentally making, in-game purchases [6]. To create a more ethical advertising model, game companies should provide policy and guidance for implementing non-intrusive ad placements. For example, rather than forcing players to view pop-up ads that appear unexpectedly, advertisements should be optional and accessible through designated in-game locations, allowing players to engage with them at their discretion. This approach not only enhances the gaming experience but also ensures that players are not manipulated into engaging with ads through deceptive patterns.

Ethical game design may not always align with the best interests of game designers or companies [1]. As a result, implementing ethical practices in game designs may require policymakers to take the lead by introducing relevant policies or regulations. These measures should address not just on UGG platforms, but the broader video game industry. For instance, there should be a clearly defined refund policy for virtual items in games, similar to those that exist for physical goods. Regarding default settings, determining what is considered "acceptable" can be complex. Policymakers could support user-experience research to identify the minimal standards that meet players' basic needs, which can then inform the game design of more inclusive and improved default features. Additionally, further research is needed on the timing of in-game advertisements and purchase prompts, particularly how these factors contribute to impulse purchasing behavior during gameplay. Based on such findings, policymakers could at the very least issue guidelines on the appropriate design and timing of pop-up ads to reduce exploitative practices.

5.6.2 Social Features for Family-Supported Gameplay. In social games—whether on UGG platforms, or developed by AAA studios or independent developers—social features not only foster connection but can also reinforce norms that encourage excessive spending [5, 83]. Prior research has shown a positive correlation between in-game spending [83] and peer pressure in multiplayer environments, and peer conformity on in-game purchases is a well-documented dynamic within gaming communities [5]. Moreover, recent news has highlighted that child players often experience pressure to make in-game purchases [6], which can lead to unintended spending and pose financial risks to families [68].

The social monetization practices in social games—when combined with weak parental oversight and limited safeguard features—can create high-risk environments for child players. As such, effective risk mitigation must not only support child players in engaging with games safely but also foster an environment that empowers guardians and other stakeholders to protect them. As such, we propose two social features to social games like UGGs. The first feature aims to support child players through their trusted networks, thereby promoting responsible gaming

behavior. For instance, UGG platforms could implement a "trusted circle" system that allows only verified in-person friends and family members to connect within the game. The second feature seeks to reduce financial barriers to social play, which is a critical step toward enabling more accessible and inclusive, family-supported gameplay. For example, a paying player could be granted the ability to invite a friend to join them in the game at no additional cost.

Our study found that trusted individuals—such as near-age family members—play a critical role in shaping young players' in-game behavior. Therefore, we suggest that social games like UGGs could integrate more social features that enable trusted individuals to help mitigate risks, especially for child players. For example, platforms could introduce a "request for help" button that notifies trusted individuals, granting them access to the game link so they can review the gameplay and offer guidance or suggestions to the child player. Platforms could also offer child players a game rating system informed by feedback from their trusted circle. For example, if a friend or family member within the trusted circle has previously given a game a low rating or reported it, that game could be flagged as high-risk for the child player.

Co-playing [64] is an online risk mitigation strategy in which guardians actively participate in their children's gaming experiences to better understand and address potential risks through joint gameplay and discussion. Besides parental mediation, we propose incorporating social features that encourage co-play among peers and extended family members—such as siblings or cousins—to further support responsible gaming behaviors. Research has shown that trusted individuals such as family members [17] and peers [73] can be effective role models, offering relatable guidance for child players' behavior. In a gaming context, encouraging trusted individuals to play together can create an environment where child players receive natural guidance, reducing the likelihood of excessive spending or unhealthy gaming habits. For example, platforms could allow trusted players (such as parents or verified friends) to view the child's in-game perspective while playing together (e.g., by switching between their own and the child's viewpoint), as well as provide functionalities to capture screenshots and directly report concerns to the platform.

Although some social games such as UGGs already enable co-play by allowing multiple players to join the same server, additional design interventions are needed to more meaningfully involve trusted individuals and empower them to positively influence child players' risky behaviors. First, game companies could provide onboarding guides for trusted individuals before they join child players' game servers. These guides would help them understand core game mechanics and how to offer meaningful support during co-play. Second, game companies could implement scheduling tools to allow trusted individuals to set joint playtimes and receive reminders, thereby reducing the friction associated with coordinating across different schedules. Third, game companies could introduce reflection prompts or post-session summaries that encourage dialogue between child players and their trusted networks about in-game decisions or purchases, fostering greater awareness of potential risks and promoting shared learning experiences.

Furthermore, in order to encourage trusted individuals' co-play experiences, we recommend that the monetization strategies should be designed to avoid spending against their personal interests solely for socializing with someone they care about. As such, game companies could consider social features that fulfill offline social interaction needs. To achieve this, game companies and game designers could consider features that allow trusted individuals to join paid games freely, centering gameplay around the player who initiates the session. For example, the Steam game It Takes Two [104] includes a "friend pass" that lets a friend play for free when the primary player purchases the game. Such features ensure that the child players' trusted individuals can socialize with the child players through games without feeling pressured to make financial investments against their will.

Overall, designing gaming experiences that promote socializing with trusted individuals not only provides child players with a natural, supportive framework for monitoring and guidance, but also reduces trusted individuals' pressure to make purchases against their will or fall victim to predatory monetization practices. By integrating these social features, game companies and

designers of social games like UGGs can create gaming environments that prioritize healthy social interactions while minimizing the risks associated with predatory monetization practices.

6 Limitation and Future Work

We recognize that our study may have a few limitations and thus we reflect and propose future work regarding the limitations. First, this study primarily relies on participants' self-reported experiences regarding the influence of predatory monetization on themselves, their gaming communities, and close family members who play the game with them. Both the self-reported and second-hand accounts may introduce subjective biases into the data. Since our paper focuses on socialization—sometimes within families and broader communities—these second-hand accounts remain valuable for capturing community dynamics in response to predatory monetization strategies. To strengthen the validity of our qualitative findings, future research could incorporate quantitative data and more objective measures to further validate these findings. For example, behavioral data such as in-game transaction logs, playtime records, or spending patterns could provide a more accurate assessment of how players engage with monetization strategies. Experimental studies or observational methods could also be used to examine player behavior in real-time, reducing reliance on self-perception and recall biases.

Second, while we recruited participants for four UGG platforms, participant discussions were largely centered on Roblox and Minecraft, with relatively fewer comments on Fortnite Creative and Rec Room. This could be because Roblox and Minecraft are more popular and the predatory monetization practices on there are more influential, making them more salient in participants' experiences. Given that different UGG platforms have distinct monetization models and social dynamics, future research should explore Fortnite Creative and Rec Room in greater detail. A comparative study across various UGG platforms could help cross-validate our findings or highlight potential differences in how monetization strategies affect player experiences.

Third, this manuscript belongs to a big project which has "safety" as its central focus. As such, we chose to focus on player safety for this manuscript. In addition, among various safety concerns such as inappropriate content or toxicity, all authors iteratively discussed based on the transcripts and decided to have the central focus on socialization and monetization for their potential novel contribution to CHI PLAY community. In the future, we may have other manuscripts to capture the rest of the findings we found in the data.

7 Conclusion

Through interviews with 23 adult players across four major UGG platforms, our study investigated how UGG players experience the influence of predatory monetization practices, highlighting their tangible impacts on player behavior and social interactions. We identified three key themes: felt manipulation, monetized interpersonal relationships, and risk perception and mitigation strategies. Although grounded in the context of UGGs, our findings highlight broader concerns about video game monetization—particularly in social games—that predatory monetization extends beyond individual spending decisions, fostering environments where financial transactions become embedded in social relationships. We propose an ecosystem of predatory monetization, illustrating how deceptive design patterns sustain and reinforce predatory monetization. In this ecosystem, the negative consequence of predatory monetization extends beyond financial risks to include broader safety concerns, including trust, privacy, and child protection.

Building on these insights, we advocate for social features that facilitate family-supported gameplay and emphasize the accountability of game companies, game designers, policymakers, and researchers in ensuring ethical game monetization practices. By mitigating predatory monetization practices and fostering gaming environments that prioritize genuine socialization, game companies and designers can create fairer games that empower players to make informed

financial decisions. Our contributions provide critical perspectives on digital consumer protection and the evolving intersection of gaming, social interactions, and monetization.

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Appendix A. Participants' Demographic Information

No.	Age	Race	Gender	State	Game	Years of Play
P1	19	Asian	Male	PA	Roblox, Minecraft, Fortnite Creative	9
P2	22	Asian	Male	TX	Roblox, Minecraft	10
P3	21	White	Female	PA	Roblox	4
P4	19	White	Female	PA	Roblox, Minecraft	N/A
P5	21	White	Female	PA	Roblox, Minecraft	12
P6	24	White	Female	PA	Roblox, Minecraft, Fortnite Creative, RecRoom	9
P7	29	White	Female	PA	Minecraft	N/A
P8	20	White	Female	DE	Roblox, Minecraft	9
P9	21	Asian	Female	PA	Roblox, Minecraft	12
P10	19	White	Male	PA	Minecraft	8
P11	22	White	Female	PA	Roblox, Minecraft	2.5
P12	25	Asian	Male	PA	Minecraft, Fortnite Creative	4
P13	23	Asian	Female	PA	Roblox, Minecraft, Fortnite Creative	11
P14	20	Mixed	Male	PA	Roblox, Minecraft, Fortnite Creative, RecRoom	N/A
P15	19	White	Male	PA	Roblox, Minecraft	12
P16	21	Asian	Male	PA	Minecraft, Fortnite Creative	10
P17	18	White	Female	PA	Roblox, Minecraft	7
P18	19	White	Male	PA	Minecraft, Fortnite Creative	2
P19	19	White	Female	PA	Roblox, Minecraft	9
P20	19	While	Male	PA	Roblox, Minecraft, Fortnite Creative, RecRoom	7
P21	27	White	Female	PA	Roblox, Minecraft	2
P22	18	White	Male	MD	Roblox, Minecraft, Fortnite Creative	11
P23	21	Mixed	Female	PA	Roblox, Minecraft	10

Some participants responded with vague estimates such as "many years" or stated they "can't remember" when asked how long they had played on UGG platforms. Accordingly, these responses are marked as N/A in the table.

Appendix B. Interview Protocol

1. About game
    a. What games do you play (Roblox/Minecraft/RecRoom/Fortnite Creative)?
        i. How long do you play each?
        ii. Game platform preference, why?
    b. How often?
    c. Game preference? Why?
        i. What is the game about? Enjoy what?
    d. How did you find these games?
    e. Are there any games you used to play but stopped playing now? What makes you change (if they don't)? Do you still enjoy the game in the same way (if they do)?
2. Socialize
    a. Whom do you usually play with? Or do you usually play alone?
    b. Add friend? Receive friend request?
    c. Do you talk in games? What topic?
3. Financial
    a. Have you ever spent money on these platforms? What's the money for?
    b. Do you want to spend money?
    c. How do you feel about those payment systems? Do you like them or not? And why?
4. Game Safety
    a. How do you think about the game genres in the platforms you played? Do you think they are child friendly/PG restricted?
    b. Have you heard about risks or harm in these platforms? What are they? Where did you hear that information from?
    c. Is there anything you experienced in games that you believe are risky or harmful? What are they?
    d. What do you think can help you to cope with harm/risky experiences on these platforms? Is there anything you wish platform to do? Are there any features you wish to have in the game to help you? Is there anyone that you wish can help you with when you encounter such experiences?
5. About UGG
    a. Compare their experiences with these blocky games versus AAA games, to reflect on what is unique in Roblox and Minecraft
    b. How does the world-building capability mean to you

Appendix C. Themes and Codes

Theme	Subtheme	Participants	Codes
Felt manipulation from monetization practices	Uncertain Value Purchases	P5, P19	Players rely on visuals and hope to assess game quality before purchase, without guarantees. Players feel obligated to enjoy a game simply because they paid for it.
	Undermined Player Investment	P3	Frustration over paying for early access with minimal updates. Frustration when games transition from paid to free. Feelings of betrayal as paid status loses its value over time.

	Forced Attention Shifts	P3, P6, P20	Annoyance over constant pop-ups. Some UGG platforms are seen as more aggressive than others. Players dislike forced ads exposure. Frustration with UI designs that encourage unintended spending.
	Accidental Spending	P12, P14	Games use payment methods that make it easy for children to spend without realizing. Systems designed to encourage repeat purchases through behavioral nudges. Seamless payments increase the likelihood of scams or mistaken charges. Participants want friction-based features (e.g., hold-to-confirm) to protect kids.
Monetized interpersonal relationships	Purchase to Fit In	P3, P12, P22, P23	Players feel pressured to buy because others have already done so. Online content promotes trends and amplifies FOMO. Peer groups dictate which games to buy and play. After conforming, players sometimes regret the experience. Conformity-driven purchases at young ages.
	Default Skin Stigma	P3, P6, P11, P19, P23	Players without purchases are seen as inexperienced. Strong push to buy cosmetic items to avoid being ostracized. Appearance often outweighs actual skill. Unattractive defaults encourage cosmetic purchases. Players use paid items to escape stigma. Players purchase cosmetics to enhance visual satisfaction.
	Granted Elite Status	P4, P13, P18, P19, P22	Buying passes to avoid being excluded. Special titles next to usernames incentivize purchases. Skins and badges create a sense of prestige. Emotes and visual cues enhance social identity. Paid game passes provide enhanced gameplay features.
	Family Bonds Investment	P3, P5	Buying to play with family Social connection as purchase motivator Socializing-driven purchase regrets
Risks and risk mitigation under monetization	Risky Purchasing Practices	P1, P11, P14, P17, P23	Kids make purchases without guardians' consent. Kids play paid games in risky ways. Games exploit children's attraction to in-game currencies.
	Familial Care as Risk	P1, P3, P6	Guardians are unaware of game trends and risks.

	Mitigation Strategy		Family members guide and support safer gaming.

Appendix D. Design Implications Summary

Focus Area	Issue Addressed	Design Recommendations for UGG Platforms	Implications for Policymakers and Researchers
Informed Financial Decisions	Default Skin stigma and granted elite status	Provide neutral, high-quality default skins Encourage influencers to use default settings Monitor and address social hierarchies created by design Allow players to report design-driven discrimination	Policymakers: Fund research to define minimum design standards that meet players' basic social needs
	Refund policies	Implement clear, fair, and transparent refund mechanisms for virtual goods	Policymakers: Establish refund guidelines for in-game purchases
	In-game advertisements	Set transparent ad placement rules, including timing and triggers to avoid manipulation	Researchers: Study how ad timing influences impulsive purchase behavior
Family Engagement	Features supporting family co-play	Provide onboarding guides for trusted adults unfamiliar with gaming Include scheduling tools for co-play Add reflection prompts to spark online safety discussions	N/A
	Monetization aligned with co-play	Allow family members or close friends to join paid games for free or at reduced cost	N/A

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