

# Play, Pay, Profit: Exploring When Gaming Becomes Gambling

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## ABSTRACT

This study investigates the convergence of gaming and gambling through a thematic analysis of 13 semi-structured interviews with video game players, identifying three key themes: the blurred boundaries between gaming and gambling, perceptions of gambling mechanics, and the complexities of platform economies. Notably, monetary involvement — particularly the ability to “cash out” — was central in participants’ definition of gambling, with “free” gambling-like mechanics perceived as “near-gambling.” Opportunities to gamble inside specific esports titles, and gambling-themed minigames further complicate these boundaries, as participants noted their normalization through constant exposure and advertisement. Platform economies, such as Steam’s marketplace, were viewed as fostering speculation and encouraging profit-driven behaviors, transforming virtual items into investments. While participants acknowledged personal responsibility, concerns emerged regarding minors’ exposure to these systems and the need for regulation. These findings emphasize the need for future research and regulatory frameworks that address platform-wide ecosystems rather than isolated game mechanics.

## Keywords

video games, gaming and gambling, platform economies, loot boxes, virtual currencies, player perspectives

## INTRODUCTION

The relationship between video games and gambling has grown increasingly complex over the past decade, driven by the convergence of platforms, mechanics, and monetization models (Zanescu, Lajeunesse, and French 2021; Ross and Nieborg 2021; Thorhauge 2024; Xiao and Henderson 2024a). This convergence has extended beyond

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simple gambling imagery in single-player games, to simulated gambling activities within online games using real money or purchasable virtual currencies (Cassidy 2013; Kristiansen et al. 2018), and microtransactions featuring gambling-like mechanics, such as loot boxes (Macey et al. 2019), and various gamblified minigames incorporating chance-based rewards (Griffiths and King 2015; Armstrong et al. 2018).

Loot boxes, particularly, have attracted significant attention from regulators, academics, and the media (Mattinen, Macey, and Hamari 2023b), sparking debates whether specific types of loot boxes, such as those including payment in their opening, should be classified as gambling (Drummond et al. 2020; Liu 2019; Hodge et al. 2022). These discussions have often extended to secondary markets where players can trade virtual goods for real money, as seen in phenomena like skins gambling (Macey and Hamari 2019; Thorhauge and Nielsen 2021). However, the research landscape has expanded beyond loot boxes, examining various aspects of this convergence: from economic analyses of gambling mechanics among platform economies (Zanescu, Lajeunesse, and French 2021), to investigations of video game-related gambling's potential effects on health and well-being, especially among young people (Wardle and Zendle 2021). Indeed, researchers have begun conceptualizing this phenomenon through frameworks such as "gamblification" (Macey and Hamari 2024; Brock and Johnson 2021; Zanescu, French, and Lajeunesse 2021), to describe the increasing incorporation of gambling elements as tools for consumer engagement and monetization in digital games (Macey, Hamari, and Adam 2024).

The growing popularity of esports adds another dimension to this convergence, with the gambling industry increasingly listing esports titles alongside traditional sports (Sweeney, Tuttle, and Berg 2021). As such, popular multiplayer games such as *Counter-Strike 2*, (formerly *Counter-Strike: Global Offensive*, CSGO), *Dota 2*, and *League of Legends* have become increasingly popular targets of betting (Business Research Insights 2024), while novel game mechanics inside esports titles have allowed players to wager on matches using virtual currencies (Abarbanel et al. 2020; Zanescu, French, and Lajeunesse 2021). While certain companies have moved away from loot boxes under regulatory pressure (Sinclair 2022; Powell 2023; Rees 2022), industry leaders, such as *Valve* continue to integrate competitive gaming, gambling mechanics, and marketplace features, generating record profits in the process (Zwiezen 2024).

Despite extensive regulatory debate, qualitative research on how players themselves perceive the intersections of gambling and gaming remain scarce (Mattinen, Macey, and Hamari 2023b). Existing policy frameworks have struggled to address the full spectrum of embedded gambling elements (Xiao 2024), underscoring the need for in-depth qualitative analyses focused on platform economies, player experiences and the normalization of gambling-like features (Macey and Bujić 2022; Lawn et al. 2020).

By examining players' experiences through a thematic analysis of 13 semi-structured interviews, this study sheds light on how video game players perceive mechanics such as loot boxes, in-game currencies, and tradable virtual goods. Additionally, it investigates the influence of platforms like Steam in shaping these interactions. Guided by the research question, **"How do video game players perceive the intersections of gaming, gambling-like mechanics, and digital marketplaces?"**, the findings contribute to both academic discourse and policy discussions, offering insights into the nuanced dynamics between game mechanics, monetization strategies, and player experiences.

## BACKGROUND

Loot boxes are the latest incarnation of long-standing collectible-and-random-reward practices that date back to mid-20th-century trading cards and were popularized in the 1990s by collectible card games like *Magic: The Gathering*. Both systems relied on chance, encouraged secondary markets for rare items, and laid the groundwork for modern randomized in-game rewards. By the late 2000s, online platforms emerged to facilitate transactions, enabling collectors to bypass chance while profiting from rare pulls (Craddock 2004).

In 2009, EA Sports introduced the *Ultimate Team*<sup>1</sup> (UT) mode in their FIFA series, a fantasy-draft style feature where players could create teams by opening randomized packs purchasable with both in-game coins and Microsoft Points<sup>2</sup>. Simultaneously, Valve's 2013 *CS:GO Arms Deal* update (Valve 2013) introduced *weapon cases* that mirrored this randomized distribution model, allowing players to spend money to open cases with randomized contents. Both platforms strategically developed secondary marketplaces based on virtual currencies – UT's in-game action house (UT Coins) and Steam's *Community Market* (Steam Credit) (Valve 2012).

While FUT packs and weapon cases in CS:GO seemed to share a lot of similarities, a key difference between the two remained the platform they existed in. EA Sports' FIFA was a yearly iteration, and each version of FUT had its own version of the marketplace. In contrast, the Steam market existed as a layer on top of the Steam platform, sharing its users and their Steam wallets between all products that use the marketplace. In effect, this also meant that the Steam marketplace also existed outside of the games, a sharp contrast to how the UT series operated. As such, users quickly realized that creating third-party websites and services utilizing the Steamworks Web API<sup>3</sup> was possible, and thus a host of novel gambling activities, now colloquially known as *skins gambling* (Macey and Hamari 2019), were born. And while Valve was quick to denounce these activities in the aftermath of these sites' explosion in popularity (Pereira 2016), a host of contemporary sites still exist featuring gambling activities using the players' Steam inventory and wallets to different currencies, such as cryptocurrencies<sup>4</sup>.

Contemporarily, academics in the field were becoming increasingly interested in the concept of platform marketplaces and loot boxes that were offered there (Mattinen, Macey, and Hamari 2023b; Greer et al. 2019). A common thread in the convergence of gambling and video games seemed to be the online platform economies that sustained them (Ross and Nieborg 2021; Abarbanel et al. 2017). Indeed, studies focusing on online platforms were already becoming more prevalent in the 2010s (Akins, Chapman, and Gordon 2014; Dionisio, Iii, and Gilbert 2013; Hamari and Lehdonvirta 2010), but the steady incorporation of gambling and gambling-like activities to monetize games and drive platform economies and engagement began multiple new research areas. These included attempts to define different types of loot boxes (Xiao et al. 2024; Castillo 2019; Neely 2021; Macey and Hamari 2019; Mattinen, Macey, and Hamari 2023a), how game platforms can encourage gambling (Zanescu, Lajeunesse, and French 2021; Ross and Nieborg 2021), and the relationships between esports and gambling (Abarbanel et al. 2020; Denoo, Bibert, and Zaman 2021; Schneider 2015). Much of this work was synthesized to the theory and conceptualization of the gamblification of digital media. Researchers have identified key types of gamblification, such as its *affective* and *effective* use among media products, and distinct application contexts, e.g. in commerce and social media to drive

engagement and increase profitability, and even in governance via a form of social engineering (Macey and Hamari 2024; Brock and Johnson 2021; Macey, Hamari, and Adam 2024; Zanescu, Lajeunesse, and French 2021).

## **Revealing the problems of video game gambling**

After loot boxes became the main interest of contemporary academics in the field (Mattinen, Macey, and Hamari 2023b), studies exploring their relationship with disordered gambling behavior were becoming increasingly frequent. One of the main concerns was the potential problems and risks that engagement with loot boxes posed to players, especially younger ones (Rockloff et al. 2021; Cerulli-Harms et al. 2020). As such, many explored relationships between loot box purchasing and problem gambling and gambling/gaming disorder (Joaquín González-Cabrera et al. 2022; Joaquin González-Cabrera et al. 2023), whether engagement with loot boxes can lead to gambling later in life (Molde et al. 2019), and how regulatory agencies were having difficulties enforcing rulings on loot boxes (Xiao 2021; Drummond et al. 2020; Derrington, Star, and Kelly 2021). Beginning in the 2020s, numerous systematic reviews on the topic started showing evidence that loot boxes and similar microtransactions could be linked to problem gambling (Gibson et al. 2022), gaming disorder (Spicer et al. 2022), and excessive spending on games (Garea et al. 2021).

Research on simulated gambling among youth (Kristiansen et al. 2018; Hing et al. 2023) has highlighted how online platforms, such as social media can serve as an introduction, or a gateway, to gambling-like experiences. These studies reveal that motivations for engaging in simulated gambling evolve over time, with younger players valuing virtual prizes and older participants appreciating social benefits and skill demonstration. The gradual normalization of these mechanics poses an increased risk of transitioning to real-money gambling from simulated gambling activities, emphasizing the need for regulatory policies and education to mitigate harm.

Qualitative research on loot box engagement has shown that they motivate players through a mix of psychological and social factors. Researchers have identified key themes for purchase motivations, such as the thrill of opening, fear of missing out, and social influences (Nicklin et al. 2021), and explored how attitudes towards loot boxes can be formed based on their implementation (Hodge et al. 2022). Further, research on the broader links between gaming and gambling (Wieczorek, Bujalski, and Dąbrowska 2024) has uncovered structural and emotional similarities, such as randomness, social rewards, and misconceptions of control, which encourage transitions between the two activities.

## **METHODS & DATA**

### **Study Design and Participants**

This research employs an exploratory design, following principles outlined by Reiter (Reiter 2017). We begin with an explicit theory that gambling-like mechanics in video games have become and are still becoming increasingly prevalent and potentially problematic, particularly within platform economies that facilitate peer-to-peer transactions and allow its user to profit in several ways. Unlike confirmatory research, our goal is not to test hypotheses but to explore this initial theory through qualitative data, seeking to provide new explanations that have been previously overlooked or under researched. Through a series of semi-structured interviews, we engaged in an

iterative process of refining and adapting our explanations inductively, following Gadamer's concept of the hermeneutic circle (Gadamer 2013).

Initial data capture occurred through an online survey distributed through the participant recruitment service *Prolific* in the autumn of 2023. We screened participants based on their gameplay activity (played free-to-play or pay-to-play games in the last 12 months). From the captured survey data, we conducted analysis to determine potential participants who reported actively engaging in video game play. Select participants fitting this screening were then approached, from which a total of 13 participants agreed to participate in a follow-up interview. The interviews were conducted via a Zoom call in English and lasted an hour on average. In total, there were 10 male and 3 female participants, age of which ranged from 20 to 44. Three of the participants resided in South Africa, while the remaining 10 in European countries.

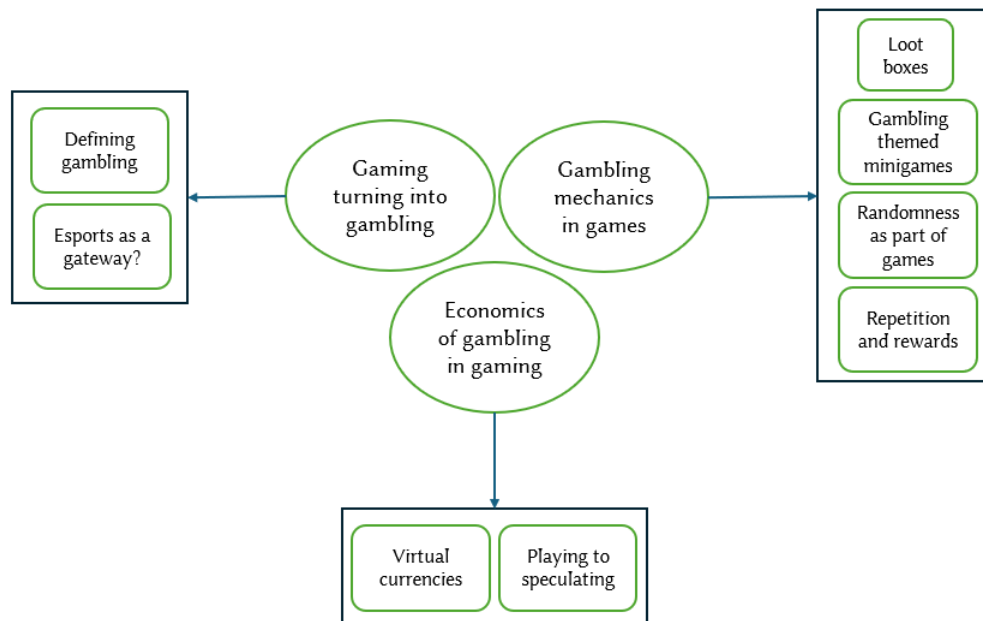
## **Interview Framework and Data Analysis**

Interviews were conducted in a semi-structured format, allowing flexibility to explore individual experiences while maintaining consistency across participants. Core topics included definitions of gambling and money, experiences with gambling-like mechanics, perceptions of esports and in-game betting, and views on platform economies and secondary marketplaces. We chose this approach for its ability to capture complex and sensitive topics such as gambling behaviors and in-game spending patterns.

Thematic analysis was employed to interpret the data, following Clarke and Braun's (2017) guidelines. After transcription and manual cleaning by the first author, the process began with familiarization and initial code generation. Theme identification and refinement occurred iteratively, with all authors contributing to theme validation and naming. This method was selected for its effectiveness in revealing patterns of meaning while preserving contextual nuance.

## **RESULTS**

This section presents a comprehensive thematic analysis of interviews with 13 avid video game players, exploring intersections of gaming, gambling-like mechanics, and platform economies. Three major themes, and seven subthemes emerged, revealing significant overlaps and complex relationships between the activities. The first theme emerged from the perceived boundaries and transitions between gaming and gambling, while the second theme arose from views on specific game mechanics, such as loot boxes, which blur these lines. The third theme emerged from the participants' views on game platforms, and how economic incentives can normalize gambling-like behaviors through potentially problematic practices. The interconnectedness of these themes underscores the need for a holistic understanding of the evolving relationship between gaming and gambling, highlighting the nuanced ways in which these systems converge and impact player experiences.



**Figure 1:** Thematic analysis overview.

## **Theme 1: When Gaming Turns into Gambling**

### *Defining gambling in gaming contexts*

*“As I said, it's still money and it's the fact that you put in the money, but you can't pull it back. It's still gambling, but... it's kind of a lesser form of gambling. Like you do not have this mental thing that you can bring back a 1000 bucks if you put in 100 now.... So, I think it's.. a bit less... destructive.” -M20*

The first theme identified concerns the transition from gaming to gambling. For many participants, this involved the exchange of money. However, there were differing opinions among the participants as to what mechanics constitute the act of “gambling”, and many expressed thoughts on some forms of “quasi” gambling, or “near” gambling regarding different in-game mechanics. While some viewed all forms of randomized in-game purchases as inherently gambling-like, others highlighted the presence, or lack of, a “cash-out” option as a key distinction. If there is no way a player could cash-out their winnings, then arguments were often made that, while the mechanics can seem similar to gambling, there is still a mental leap between the two.

Often, “money” was included in the participants’ definitions of what constitutes gambling as they conceptualized it. In fact, 11 of the 13 participants mentioned money in their first answer, whether it was in reference to their definition of gambling, or that gambling is somehow related to money. When further queried, the two participants, who did not initially mention money, still mentioned money as being an integral part of their idea of gambling. Additionally, the concept of “gambling is about earning money” was quite strong among the participants, with several of them explicitly stating that gambling is a means to make money.

*"I think it's something you get used to... you'll keep buying them. So, it tends to be a habit. Gambling is addictive. I think we all know that. If you continue doing it continuously. I think that's when you can identify it as gambling." -F23*

Beyond simply spending money, participants often viewed addiction as key in their view of gambling and saw how these mechanics could be addictive. However, while gambling was referred to by many as a serious issue, and as something that can cause problems, many did also refer to it as an activity that can enhance experiences and as something that almost everyone does at some point. Participants often felt that these gambling mechanics could foster addictive behavior and help to problematize gaming behavior, which could already be addictive due to specific player retention mechanisms, those which involved anything gambling-like, and those that do not.

### *Esports as a gateway to gambling?*

*"That's just regular gambling. I mean, it's esports and yes, they play computer games, but it's still just the same as betting on every other sport." -M23b*

A clear consensus among the participants was that they thought of esports as just another form of sports when betting on them. Participants felt that there was no clear distinguishing factor between betting on any sports, or betting on esports. A few participants suggested that perhaps esports betting still requires more involvement from the bettor, and that betting on esports meant that you were more likely to be involved with that game, such as playing it.

*"What could happen is, for instance, you have a loot box... and you could gamble to support teams that are competing in a tournament." -M23a*

Some participants more involved in esports gave examples of gambling activities that could take place inside the game, i.e. players could wager some form of currency on professional matches as they were happening, or that special loot boxes would be offered during tournaments, and these were things that some participants saw as potentially problematic.

*"When you play football... it's not like every time you score a goal, you have an ad popup that says, 'Go ahead and bet on Real tomorrow.' In games. they have a lot of promotions of those gambling mechanics, and they more heavily incentivize the player to partake in them compared to traditional sports." -M21*

These participants more familiar with esports felt that there is potentially an increased presence of gambling in specific esports titles. As nearly every participant pointed out, while esports is a sport in many regards, a few participants did connect the constant exposure to these gambling-like products, such as loot boxes that many popular esports titles still offer, to an increased presence of gambling. And while it was made clear that players could still play these games without ever purchasing this type of content, the mere existence of them could still be enough to see them as a potential issue.

## Theme 2: Gambling Mechanics in Games

### *Loot boxes - a game mechanic or simply gambling*

*"If I would get loot box for logging in every day and just get something nice... this is not gambling for me. It's obviously a loot box but kind of a different loot box. As long as, it's necessary to buy something to open it – then it becomes a real deal." -M26*

Among the participants, there were a lot of differing opinions on the topic of loot boxes. A point of contention regarded their access, and whether they could be opened for free or whether payment was involved. This was especially in the case of discussing these mechanics as gambling, or whether they could be seen as gambling. While participants generally saw all forms of loot boxes as something "gambling-like," the potential involvement of money was often key when more closely defining these mechanics as "real" gambling. However, many thought that the presence of purchasable loot boxes, given freely or not, could still encourage players to gamble and spend indefinitely, especially if the boxes contained something they needed for gameplay reasons. This, again, was especially heightened with the idea of minors being constantly presented with these mechanics.

*"You're just... buying your moves and improvements. You're not playing fairly with other players. If you're betting more money, you'll get better, of course, and then you will win more. It's not fair for someone that didn't get to bet the same amount." -F23*

Most of the time, participants made some separation between two types of loot boxes – ones that contain game-affecting items, and ones that only contain cosmetic items. Of these two, many participants were quick to denounce the former as "pay-to-win" or "unfair to other players," as the more a player spent money on these, the better they were prepared to play against other players. Interestingly, a few participants did mention that, at least with the game-affecting loot boxes, a player was doing something tangible in the game, and not just buying a "silly hat" to wear for a day or two. In conclusion, the participants' individual opinions on what they perceived as gambling heavily influenced their thoughts on the concept of loot boxes, and other similar microtransactions. However, most agreed that either all forms of loot boxes, or specifically those that one pays for, could be considered gambling.

### *Gambling themed minigames – just another loot box?*

*"... now we're talking about the issue of spinning the wheels, buying the boxes, going online daily to get free spins or to get free coins. It does increase the temptation to always go back in, to always want more, to always gamble more." -M40*

Participants were encouraged to explore perceived differences in their experiences with different types of games and game mechanics, for example, between loot boxes and these gambling themed minigames present in many free-to-play games. Many felt that, while often appearing visually distinct from loot boxes, the core concept remained the same, especially if a player could spend money to attempt to "get another go." Interestingly, a few participants felt that the imagery modeled after traditional gambling games, such as slots, or wheel spins, were alone enough to deem the mechanics somewhat problematic, especially if offered as a purchasable feature in games targeted towards children.



While this topic of gamblified mechanics often concluded with the involvement of money, there was another key issue that raised concerns, which was that games offered these mechanics for free to drive engagement. This, again, split opinions, and some felt that the free mechanic did not constitute gambling as no money was spent, while others reinforced their remarks that these types of mechanics that “lure” players in can encourage gambling or generally foster addictive patterns.

### *Randomness as an inherent part of games*

*“At the end of the day, the game has to be good for people to play. Gambling can enhance some feelings, but it cannot create them. If the game is shitty, then no matter how much gambling you put in it, it will not help the game.” -M20*

While discussing gambling and gambling mechanics in games, participants often talked about randomness as a part of video game mechanics. While many felt that adding gambling mechanics to a game just to drive engagement could be immoral, tacky or feel forced, these feelings were expressed often in conjunction with being able to spend money on these mechanics. Of games that heavily featured this kind of monetization models, some participants felt that they were simply “cash-grabs.” However, a game containing gambling imagery or offering random rewards as accomplishments in a game were not issues that concerned many, if you could not also go and spend money on these.

Randomness itself was not seen by the participants as something that should be discouraged, per se, although some raised concerns about tacking on mechanics resembling gambling that took away importance from player skill. Few also raised randomness as a key component in video games, mentioning it as something that some games naturally must have to function properly, e.g., collectible card games. Additionally, many participants felt that these kinds of randomized rewards would not be as problematic if there were no way to purchase them directly, and the only way to get them was through playing. However, many felt that this way of implementing loot boxes and similar mechanics would render them as something that is “not gambling.”

### *Repetition and rewards*

*“Not only you have to play a lot, but sometimes the tasks are just not fun. You have to purposefully grind through them if you want to get anywhere with those battle passes. For it to be good, you need to have tasks that are not like a chore. And I really don’t like the time limits, it just adds on to the grind.” -M21*

In relation to game mechanics, participants often talked about their feelings towards these systems that games used to bring them back to play the game. These player retention mechanics, such as battle/seasonal passes, or daily logins, promise rewards for the player if they keep logging in, doing different tasks or otherwise engage with the game. While these retention mechanics were often viewed as somewhat problematic, for example in ways they can feed addiction, the core concept itself was not seen as “gambling” by most participants. However, most participants agreed that in cases where these reward delivery systems offered randomized rewards like loot boxes, they functioned simply as an extension of the original gambling-like product and could be seen as gambling. This was especially in cases where players could spend money for these rewards, such as via premium versions of a battle pass.

*"I have one game that, if you play for 30 days straight, you'll get all the boosts in the game for an hour, so of course you'll win most of the levels. And yeah, I feel like I want to go there every day just so on the 30th day, I can play with all the boosts. So yeah, I think they are effective for the game, not for the person."* -F32

A point of agreement among the participants was that these kinds of engagement mechanics that use different tactics, whether it is daily login rewards, or tasks that require vast amounts of time, are often created for the benefit of the developers, not the players. However, there was some discord among the participants over the experiences of these mechanics. Some stated that, if the game was good enough, and the rewards were fair, they had little problem with them and would be glad to receive free rewards for simply playing. Some stated that they would even pay for additional rewards, sometimes because they liked the game, sometimes to support the developers. Still, there was general unwelcomeness among the participants when faced with the overuse of, and reliance on these mechanics, burning the player out on endless repetitive tasks and luring them to play or to spend. This, again, was strongly voiced among the participants when discussing minors being exposed to these tactics.

*"It all goes with the self-discipline, I think. At some point you will be aware that, you know, I'm going in because of 1, 2, 3. it's... pulling me in now. So, you should be able to see and pull back to say, 'You know what, I think I'm going in too deep.'"* -M40

Most participants often connected these mechanics to views on responsibility, i.e., is it the responsibility of the player to not "fall" for these mechanics, or does responsibility lie elsewhere, for example with parents or regulators. This clearly divided views among the participants, as some strongly advocated the role of personal responsibility with how to approach these mechanics, and gaming and gambling in general. However, again, when discussing these types of retention mechanics and tactics in the context of minors, a clear consensus was reached that these are not things that minors should be self-regulating. Many participants advocated for parents to get involved and to be aware what their children are playing. Parental blocks were also mentioned as a tool to stay aware of minors' actions and gameplay, as was the possibility of implementing spending limits on microtransactions.

### **Theme 3: Economics of Gambling in Gaming**

#### *Virtual currencies – real or play money*

*"It's still money, it's digital money. It's like saying you've got a bank card, but you cannot withdraw your money and have tangible coins and notes. But if you can... purchase something with it, then it is digital money. It's still money."* -F29

As all participants felt that money was a key factor when it came to gambling, it naturally followed that money is also central in gaming. Participants often shared their views on the different types of virtual currencies, and digital marketplaces they have encountered in games and game platforms. However, an interesting finding was that there was no clear consensus among the participants as to whether virtual currencies, especially those purchasable with money, could be seen directly as "money." For most participants, these currencies were valued "like money" or they had some form of "money's worth." However, in contrast, a few participants felt that converting your money into these currencies was not that different from purchasing goods or a gift card to a store, i.e., they regarded it as "money spent."

*“But the real money is being written out in the store... there's another layer of like, turning real money into Monopoly money, so that you don't know what's going on and you don't feel the real sting of the purchase.” -M35*

Most participants had some views on the implementation of these currencies, and what even could be considered a “currency.” Some felt that they were being purposefully deceived in the conversion rates of actual money to a virtual currency, or the number of currencies a game had. Once again, these issues were also raised in relation to minors playing games with these currencies and mechanics, and not fully understanding how much they could be spending on them.

### *From playing games to speculating on markets*

*“As a consumer, it's great because I can sell things I don't like or need, and buy something that I really want. But it also promotes a lot of... not great things... It kind of makes the CSGO boxes more addictive, more casino-like... You always have this afterthought that you can win like, 400€ for something you paid 2€ for.” -M21*

During the interviews, participants were asked to share their thoughts and experiences with different marketplaces, using Steam, and EA's FIFA Ultimate Team as examples. While not each participant had extensive experience with both or either, an explanation of the functionality of these to unfamiliar participants revealed fascinating results. With almost every participant, Steam was deemed the “better” of the two implementations due to three main factors. First, as EA's UT marketplace functions on a seasonal basis, and is bound to specific game versions, participants felt that their investments, both time and money-wise, were not sufficiently guaranteed. Second, as a game mechanic, game-affecting loot boxes that UT operates with were often viewed more negatively, a feeling explored under the second theme. Last, the idea that Steam allows its players to “profit” from the free items many of its games reward players with, was for nearly each participant, a significant positive.

However, that last positive aspect mentioned came to many participants with some caveats. Although participants felt positively on the concept of selling items they received during their gameplay, and over time using that money to purchase something else in the store, it was also clear for many that this could lead players to chase after rare items. Overall, many participants felt that this concept brought them back to their views of gambling being defined by a potential “cash-out.” Most participants experienced with Steam already knew of the existence of third-party sites that allows one to cash-out. Some also noted that, as Steam also sells physical hardware, one could purchase those items with Steam credit and then sell them.

*“Honestly from what I have seen about how far people will take this extension of money of having skins and whatnot... I think that it attracts much more people than it would otherwise attract.” -M23a*

Regarding this, some participants felt that the system Steam has setup turns these virtual items directly into an “investment,” something that could be speculated on, and spent a lot of time and money on. As some items could get rarer as time went on, it naturally increases the price people were willing to spend on them. A few participants also discussed ways to “maximize” the potential profits from these seasonal items, in that they had made conscious efforts not to sell the free loot boxes immediately, but rather wait for their price to increase, as the items were removed

from rotation. Views on the Steam marketplace often also led participants to consider potential legal aspects of the platform, and how and if it should face some regulation. However, many realized the potential issues in attempts to regulate such a market, such as reliance on identity verification, and other companies taking advantage of the vacuum a “ban” would create in the gaming space. Still, many participants voiced their concerns over Steam facilitating the process of cashing-out gambled items or profits from selling items through third-party sites, potentially introducing gambling activities to the players.

## DISCUSSION

This study examined how video game players perceive and experience the convergence of gaming and gambling through a thematic analysis of 13 semi-structured interviews. Motivated by increasing regulatory and academic debates surrounding loot boxes, in-game currencies, and virtual goods trading, we sought to understand **“How do video game players perceive the intersections of gaming, gambling-like mechanics, and digital marketplaces?”** Our research addressed a gap in the qualitative literature by focusing on players’ own definitions and experiences of gambling-like mechanics within digital games and the broader platform ecosystems that facilitate secondary markets. Through iterative coding and theme development, three major themes emerged: the blurred boundaries between gaming and gambling, perceptions of specific mechanics, and the platform economics of gambling in gaming. Across these themes, participants consistently highlighted monetary involvement, especially opportunities to cash out, as central to defining what separates real gambling products from gambling-like products.

For many participants, “real” gambling occurs only when money is spent directly on chance-based mechanics, and especially when there is an opportunity to convert virtual rewards back into real currency. These perspectives support previously established theoretical positions in which the spending of money on gambling mechanics (Zendle 2019; Zendle et al. 2020), and the potential to earn money through cash-outs (Delfabbro, Delic, and King 2022; Zanescu, Lajeunesse, and French 2021; Thorhauge 2024) have been highlighted as key factors in the discussions of gambling-like content within video games. Free randomized rewards, such as loot boxes, earned through gameplay without purchase were contrasted to loot boxes requiring payment to open, further blurring the conceptualization on what gambling is and what it is about (Owens Jr 2013; Dupont et al. 2024; Zendle 2020). Participants’ diverse perceptions of the nuances between acquiring randomized virtual goods through play, through payment, or through a combination of both complicate any consensus on what truly represents gambling, i.e. is it merely about playing with chance and the imagery of cards, dice and wheels, a potential to earn monetary gain, the enhancement of feelings, or is it simply a lucrative business model for the developers. The recent *Balatro* rating controversy provides a prominent example of this tension. This single-player game containing no microtransactions was briefly rated adults only (+18) due solely to its evocation of traditional gambling imagery within the game (Walker 2025). Quickly after, a major community backlash prompted the reversal of that rating, illustrating the power of player perspectives in shaping industry practices and regulatory responses, as well as highlighting how affective associations with gambling can diverge from any mechanics that effectively involve monetary stakes.

Building on these definitional tensions, Steam’s integration of both digital and physical products further blurs the line between playing games and investing in them. By

valuing every in-game item on the Community Market, from cosmetic skins and weapon cases, to even hardware (Newcombe 2024), Valve has effectively equated Steam credit with real money. As also noted by previous research on Steam (Xiao and Henderson 2024b; Thorhauge 2024), the current system which assigns a monetary value to items, enforces artificial scarcity, requires payment to open loot boxes, and enables multiple cash-out options, creates a market where speculation is fostered, and financial gains can be made. However, what makes Steam distinct from the actual stock market is that players can enter this speculative economy without spending money. Loot boxes are awarded through gameplay yet remain locked until purchased keys are used. Players unwilling to spend money on the game can sell their unopened weapon cases on the marketplace. Thus, in effect, the game introduces users to market participation by providing tradable assets simply for playing. Over time, as older loot box versions are discontinued and removed from circulation, their scarcity increases and their market value tends to rise, prompting players to accumulate and hold these items in anticipation of future price appreciation. This dynamic not only fosters speculative behavior akin to stock trading but also shifts player motivations: the potential for financial gain becomes as salient as in-game enjoyment, and even part of it.

After the introduction of these mechanics, a game like Counter-Strike can then shift from being purely about shooting other players to a game about market speculation. As virtual items become actual real-world assets, it begins prompting questions about their exact value proposition. In the most popular Steam titles, these items are cosmetic and do not affect gameplay, yet artificial scarcity or sudden demand can elevate the market value of these items to hundreds or even thousands of dollars. Unlike sports cards and other physical collectibles whose value persists independent of the underlying game, Steam items derive all their value from the continued existence of both the game and the marketplace. As developers update or patch the game, its balance and popularity can shift, causing skin values to fluctuate wildly. For instance, between the announcement of Counter-Strike 2 and confirmation that existing skins would transfer, market values of CS:GO skins experienced dramatic swings (Stanton 2023). This volatility mirrors stock-market dynamics, where social movements, such as the “GameStop short squeeze” in early 2021, when retail investors collectively drove GME share prices from approximately \$20 to over \$480 within weeks (Malz 2021), exemplify how consumer sentiment can drive asset prices regardless of intrinsic value. Social media influencers such as steamers and esports personalities can further amplify these fluctuations by showcasing particular skins, affecting demand and reinforcing speculative cycles. Reddit data further illustrates this entanglement: while the main r/CSGO subreddit had roughly 2.8 million subscribers at the time of writing, subreddits dedicated specifically to marketplace trading and gambling amass around 400,000 total subscribers. This considerable proportion suggests that Counter-Strike’s identity as a game has become somewhat inseparable from its marketplace dynamics and gambling potential. And because the current model is mutually beneficial, i.e., players can reap financial benefits by selling virtual items earned through gameplay while the developers generate continuous revenue from direct sales and secondary-market transaction fees – the status quo persists. Most players can transform their play time to money via selling virtual items, while only a minority experience harm due to problematic consumption behaviors and uncontrolled gambling on loot boxes. As a result, these economic benefits obscure the relatively small but serious and pervasive issues, and any potential attempts to modify the system, whether through enforced regulatory action or Valve’s own intervention, could face entrenched resistance from active and invested player communities.

## Limitations

This study involved interviews with 13 video gamers and resulted in the exploration of three main themes, and seven subthemes, all relating to the convergence of video games, gambling, and economies around them. While a result of a thematic analysis, the themes also reflect the underlying interview framework, which was crafted on previous research done on the topic of the convergence of games and gambling. In a qualitative study such as this, the aim is to explore experiences and views of the participants in depth, and to add information to the ongoing discussions on the topic. While this approach, in this study, provided rich insights into video game players' individual experiences and perspectives on game-related gambling, it is important to acknowledge that the findings are limited by the common characteristics of qualitative participant studies. First, the small, self-selected sample constrains generalizability; participants who agreed to be interviewed may hold stronger opinions about gambling-like mechanics than the broader gaming population. Second, the interviewer's prior familiarity with the convergence of gambling and gaming, while useful in the construction of the initial framework of relevant topics, may have influenced the direction of follow-up questions and the interpretation of responses. Finally, cultural, and regional differences in gambling and gaming habits lie beyond the scope of this study, further limiting generalizability of participant perceptions.

## CONCLUSIONS

This study demonstrates the complex nature of the gaming and gambling activities that players may participate in. Participants identified “real” gambling as contingent on spending money on chance-based mechanics and the ability to convert virtual rewards back into real-world currencies, whereas play-earned, non-purchasable loot boxes were viewed as “near-gambling” but not equivalent. When platforms such as Steam assign real-world value to virtual items, enforce artificial scarcity, require payment to access chance-based rewards, and enable cashing out, players effectively shift from players to market participants to investors. Over time, these design choices can cultivate speculative behavior akin to financial trading, as users hold or trade assets in anticipation of value appreciation, and community dynamics and platform updates can trigger rapid price fluctuations. As virtual goods become tradable assets, their worth hinges entirely on the viability of the platform ecosystem and collective perceptions, transforming the user–game relationship into one shaped as much by market forces as by gameplay. The findings of this study suggest that theoretical frameworks and regulatory efforts that focus narrowly on isolated mechanics like loot boxes are inadequate; it is essential to address the broader, cross-border platform economies, virtual currencies, and player motivations that together normalize speculative and potentially problematic behavior and drive the evolving convergence of gaming and gambling.

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## ENDNOTES

<sup>1</sup> FIFA 09 Ultimate Team Youtube video at:

<https://youtu.be/irPtocBaLyU?si=LxgAAktAShxxqfMx>

<sup>2</sup> Xbox 360 Live Marketplace Points (later Microsoft points) introduction at:

<https://www.engadget.com/2005-10-26-xbox-live-marketplace-points-80-per-usd.html>

<sup>3</sup> Valve’s Steamworks API at: <https://partner.steamgames.com/doc/webapi>

<sup>4</sup> Example of an aggregate site for skins gambling websites at: <https://skin.land/blog/best-site-for-csgo-skins/>