Playgrounds as ‘workgrounds’: How Real-money trading transforms the gaming experience

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ABSTRACT

Video games need to provide unproductive spaces for play. However, the industrial nature of their development makes profitability a necessity, which materialises through monetisation methods such as Real-money trading (RMT), which allows players to earn economic income through transactions with in-game items. This paper examines, through a literature review, several paradigmatic case studies involving this form of monetisation, allowing us to map the evolution of RMT from a marginal practice to a full-fledged monetisation model and revealing an instrumentalised use of game items to promote their trading, systematically leading to the emergence of practices associated with labour between players. Our findings show that under the influence of RMT, play becomes a productive activity that transforms playgrounds into ‘workgrounds’.

Keywords

Real-money trading, play, playground, monetisation models, gold farming, Play-to-Earn (P2E)

INTRODUCTION

Real-money trading (RMT) is a monetisation method that has been used in video games for decades (Hunter 2006), based on allowing players to earn money from their playtime by trading game items with other players (Lehdonvirta 2005). The main goal of this paper is to identify the features of RMT that, in practice, occur in a recurrent and transversal manner and to address how this monetisation method might influence and transform the gaming experience and the playgrounds that video games create.

To do so, we rely on a theoretical framework rooted in game studies. The starting point of this framework is to establish a definition of video games (Aranda and Sánchez Navarro 2012; Navarro Remesal 2016), play (Huizinga 1950) and the space in which this activity takes place, or playground (Sicart 2014). These definitions can be used as a means to address video game development (Flores Ledesma 2022; Whitson 2012a), the importance that the monetisation model has (Tschang 2007), and the forms that monetisation takes (Sormunen 2019). Finally, and given that game items are an essential pillar of RMT, we briefly discuss the impact of game items on the

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gaming experience and examine the research by Bartle (2004), Belk (2013), Cai et al. (2019), Hamari and Lehdonvirta (2010) and Lehdonvirta (2009) to explore the mechanisms that endow them with value and facilitate their trading.

Once we establish our theoretical framework, we will contextualise RMT by outlining its origins and initial growth as a method of monetising playtime, which has appeared numerous times under different guises. Among them, we focus on World of Warcraft (WoW) (Blizzard Entertainment 2004), Diablo III (Blizzard Entertainment 2012), and Axie Infinity (Sky Mavis 2018) due to the significance of these titles in their context, the time gap between their releases, and the fact that they also serve as entry points to larger formalisations of RMT such as gold-farming (Heeks 2008), its insertion into play space (Prax 2012), and Play-to-Earn (P2E) (Parayno et al. 2023). By examining these studies, as well as other related work that addresses the influence of RMT in these video games —within game studies and game design theory—, we will attempt to achieve our stated goal of examining the features identified through our framework to observe if and how RMT does indeed transform the gaming experience.

AN APPROACH TOWARDS THE DEFINITION OF VIDEO GAME

Defining concepts such as video games, play, and playground is a remarkably complex task, which, as Navarro Remesal (2016) points out, is the subject of discussion and debate among academics within game studies.

In the context of this paper, we adopt a definition of video games based on the proposal of Aranda and Sánchez Navarro (2012, 9) and Navarro Remesal (2016, 33), who define video games as interactive systems based on rules[1] that "define the limits of the user's action [...] (through) their ludic aspect" (Navarro Remesal 2016, 22) and require the participation of at least one player (Aranda and Sánchez Navarro 2012; Navarro Remesal 2016). In developing this ludic interactivity, a relational dialogue develops between the object-game and the subject-player (Navarro Remesal 2016, 22; Pérez Latorre 2012, 29).

The definition given by these authors indicates that players develop a relational dialogue with video games through play. We understand play, according to Huizinga (1950), as a "voluntary activity" that has "its aim in itself" (Huizinga 1950) and is "unproductive" (Caillois 1961, 1). This activity takes place within a delimited time and space, under rules that are freely accepted by all participating player-subjects "but (are) absolutely binding" (Huizinga 1950).

The spatiotemporal delimitation that play requires constitutes the playground, defined by Sicart (2014, 51) as any space "specifically created to accommodate play", but not necessarily limited to a physical space —i.e. playgrounds can be defined in either material, ideal or digital context (Huizinga 1950)— nor specifically intended for use by children (Huizinga 1950; Winder 2023).

These conceptual proposals - and the limits they set - make video games an interactive medium in which many different forms of play and playgrounds can be imagined.

THE CREATIVE INDUSTRY BEHIND GAME DEVELOPMENT

Video games, and thus the spaces in which they are played, are conceived long before players can engage with them. Therefore, we cannot overlook the process in which

they are imagined and produced, i.e. game development. This section provides context regarding the development space and how monetisation models and methods become relevant.

Our theoretical starting point for understanding the production processes in a creative industry is based on Marxist theory, from authors such as Rosa Luxemburg (1933) and Marta Harnecker (1978) and Dolgov (1980) as well as the PhD in philosophy Flores Ledesma (2022), whose work stands out from the rest of cited authors as his theoretical metabolisation of key Marxist authors addresses the topic of this paper, the creation and development of video games. Drawing from these works, we understand video game development as a creative work in which development studios act as the creative force behind games. However, the resulting products of this creative work and process need to be reproduced; they need to be played; "otherwise, they hardly exist" (Flores Ledesma 2022, 230). Therefore, in order to reach players, "video games have to go through the same economic processes as any other product, [...] they have to become an industry, that is, they have to be standardised and able to be integrated into the market as a commodity" (Flores Ledesma 2022, 229-231), just like any other creative process under the capitalist system (Flores Ledesma 2022, 229).

Scholar Tschang (2007) explains the role of economics in this creative industry. The author finds many similarities between the video game industry and other creative industries, such as developing increasingly complex and expensive products, which "leads to a rationalization of the production or product development process" (Tschang 2007). A rationalisation process that, in the video game industry, is driven by "business and production interests [...] (which) might involve studios and publishers making increasingly similar products, often with similar processes" (Tschang 2007) in order to ensure profitability (Whitson 2012b). Therefore, as Schell (2014, 486) states, "Money is the fuel that drives the game industry. If games were not profitable, the industry would wither and die".

In the case of video game development, this quest for profitability stems from the business or monetisation model used, which will profoundly impact the rest of the creative decisions made (Nichols 2021; Schell 2014, 486).

MONETIZATION MODELS AND INCOME STREAM

Throughout the history of the medium, how video games have been monetised has varied and evolved, adapting to the new spaces and markets that have emerged, such as the democratisation of the internet, the rise of social networks or the emergence of the mobile market (Williams 2017).

Based on the work of Sormunen (2019) and according to Zackariasson and Wilson[2] (2014), we find that in practice, most video game monetisation models assume an economic flow or income stream where the last link, i.e. the players or "customers are [...] the source of income for all other participants in the value chain" (Sormunen 2019).

Nevertheless, the revenue stream can sometimes turn player-customers into potential income recipients. Well-studied examples of this include the modification of computer games or modding (Postigo 2007; Sotamaa 2010), the production and

consumption of video game-related media such as streaming (Catá 2019), and platforms that allow the creation of content for other users (Christie 2022).

Among all the possible monetisation methods, we focus on one manifestation of a bidirectional income stream in this paper. We are concerned with those games that allow players to generate income by creating and trading in-game items or virtual goods acquired during playtime and that acquire actual value outside the game space (Castronova, 2002; Dibbell, 2003). This method of monetising playtime based on trading game items —which we will discuss later—is known as Real-money trading (Lehdonvirta 2005).

It should be noted that RMT is not the only item-based method of monetising gameplay time. Some of today's most popular titles and monetisation approaches base their business models to a significant extent on the sale of in-game items (Cai et al. 2019; Williams 2017). What distinguishes RMT —and makes it our subject matter— is its bidirectional income stream, manifested in selling items between players rather than just companies selling items to players (Bartle 2004; Hamari and Lehdonvirta 2010; Lehdonvirta 2009).

Since in-game items are a cornerstone of RMT, it is worth asking what makes them essential.

THE SIGNIFICANCE OF GAME ITEMS

The items players can obtain from their playtime play a significant role in the video game as they function as rewards. In the words of Schell (2014, 219-221):

> "Games become structures of judgment and [...] people want to be judged. But people don't just want any judgment—they want to be judged favorably. Rewards are the way the game tells the player 'you have done well' [...], they fulfill the player's desires".

Therefore, taking up the concept of Navarro Remesal (2016) and Pérez Latorre (2012), we can understand items as one of the communication channels through which the relational dialogue between object-game and subject-player occurs. Accordingly, items play a role that needs to be understood from the perspective of both the game and the players.

For the game, Cai et al. (2019) identify items with an instrumental role, whose function is to directly benefit gameplay, alongside items with a cosmetic role, whose function is to change a visual element of the game. Meanwhile, Lehdonvirta (2009) identifies the main attributes that items fulfil for players as functional, emotional and social:

- Functional: "purely 'utilitarian' or use-value-based attributes (that) can […] (provide) simple numerical advantage and […] new abilities and options" (Lehdonvirta 2009).
- Emotional: "the aesthetic qualities of goods [...] (that) include their on-screen representations [...] animations and sounds[...] but also any background fiction or narrative associated with them" (Lehdonvirta 2009).
- Social: "attributes that make virtual items suitable for creating and communicating social distinctions and bonds. [...] Rarity is perhaps the most

> socially oriented attribute [...] because its value is strongly associated with its ability to distinguish a (small) group of owners from non-owners" (Lehdonvirta 2009).

Thus, in this mediation within the relational dialogue between game and player, game items acquire a symbolic value that "stems from its role and meaning inside the game or service" (Lehdonvirta 2009. However, as RMT demonstrates, some games "have proved so compelling to people that imaginary game items are actually bought and sold for real money outside the game" (Schell 2014, 42). In this context, examining the mechanisms that make game items so compelling that trading takes place is essential.

The research used to address this question focuses on different aspects of the issue: firstly, Belk (2013), Cai et al. (2019), and Lehdonvirta (2005; 2009) examine the motivators that drive players to purchase in-game items; Hamari and Lehdonvirta (2010) study the mechanics and mechanisms within the game space that promote item purchase; finally, Bartle (2004) addresses the rationale that players use to sell their items.

Item purchase motivators

Cai et al. (2019) identify the following motivators for item purchase by players: task, looking visually unique, and social. Each of these complements one of the attributes that items fulfil for players, as Lehdonvirta (2009) described. These pairs would be task/functional, visually unique/emotional and social/social or social for simplicity.

Lehdonvirta (2009) describes task/functional as "a positional attribute: if everyone has high performance, no one has high performance". Therefore, the author argues that this motivation does not always work in practice and encourages us to examine the other two attributes/motivators.

Belk (2013) focuses on looking visually unique/emotional as a motivator. The author argues that self-expression should be considered a key motivator. Furthermore, he notes that avatars act as an extension of oneself (Belk 2013), supported by Cai et al. (2019), who argue that individuality is one of the critical factors driving item acquisition.

Building on the work of Lehdonvirta (2005), Cai et al. (2019) highlight the role of the social component in players' behaviour, which "increases the likelihood of spending real-life money" (Cai et al. 2019). The authors highlight social factors such as socialisation, peer relationships, teamwork and social pressure as determinants of purchase decisions.

Mechanics that promote item acquisition

In their work, Hamari and Lehdonvirta (2010) examine the mechanics that appear in games and promote the acquisition of items. For these authors, the design of a game "create(s) the rules and mechanics that determine to a large extent the activities and specific needs of the participants" (Hamari and Lehdonvirta 2010).

In their approach, they distinguish between those mechanics that promote the acquisition of items to create segmentation and differentiation between users and those that do not:

- Segmentation-related game mechanics that promote the purchase of virtual goods include stratified content, status-restricted items, increasingly challenging content, multidimensional gameplay, and avatar types (Hamari and Lehdonvirta 2010).
- Other game mechanics that encourage virtual goods purchases include item degradation, inconvenient gameplay elements, currency as a medium, inventory mechanics, special occasions, artificial scarcity, and changes to existing content (Hamari and Lehdonvirta 2010).

These authors find similarities between these mechanics and the attributes that motivate players to purchase in-game items (Hamari and Lehdonvirta 2010). In other words, players seek specific attributes in items that games offer through mechanics such as those described.

The rationale behind item sale

Bartle (2004) is one of the few authors to explore the issue of selling items rather than focusing solely on acquiring items. In his work, he elaborates on some perceptions shared by many players:

- Sense of ownership of items created in the game: Players perceive that an item can only exist because they created it. Therefore, since the player created it, they can do whatever they want.
- Time and effort are sold, not items: Players perceive that "they are not selling the objects concerned, just the time and effort invested in obtaining them" (Bartle 2004).
- Video games encourage buying and selling: "The player claims that [...] the design of the virtual world is such that it actively encourages players to buy and sell virtual goods" (Bartle 2004). Therefore, the responsibility lies within the developer.

The proposed definition of video games, play, and playground allows us to contextualise the medium as a creative industry in which profitability occupies a privileged place, which leads us to ask how video games are monetised in terms of income stream. In exploring this question, RMT emerges as a method of monetising video games based on the trading of items by players. In the paradigmatic case studies we will discuss later, this framework will help us better understand how RMT can materialise.

REAL-MONEY TRADING MONETIZATION PRACTICES

RMT has been a reality in the video game industry for several decades. Hunter (2006) dates its first appearance to 1987 when the first transactions between players in exchange for items or to upgrade characters took place "within text and basic graphics based multi-user dungeons (MUDs)" (Heeks 2008). RMT as a practice remains in its early years and begins to gain some popularity around the turn of the Century (Dibbell 2007; Hamari and Lehdonvirta 2010; Heeks 2008), coinciding with the emergence of MMOs (Massive Multiplayer Online games) such as Ultima Online, launched in 1997

(Origin Systems), or EverQuest (Daybreak Game Company 1999). Both are examples of a genre of games "designed to have a realistic economy, containing virtual assets such as clothes, money and realty" (Lehdonvirta 2005).

At the turn of the Century, the RMT market grew exponentially. In 2001, RMT was estimated to be worth $5 million per year (Castronova 2002), and by 2004, estimates of annual RMT transactions ranged from a conservative $100 million (Castronova 2004) to $880 million (Slayer 2004). However, all of these transfers take place outside of the game space, as the most influential MMOs of the time do not use the sale of items as a business model (Lehdonvirta 2009) —the only type of trade allowed in their game space is "to exchange their virtual assets for other virtual assets, like castles for gold" (Lehdonvirta 2005)—. As a result, in the early stages of RMT's growth, trading items with real money took place only on third-party platforms such as eBay (Lewis 2006).

WoW, released in 2004, is our first case study. This title also introduces gold farming and the video game industry's strategies regarding this practice.

World of Warcraft and gold farming

WoW is one of the most popular MMOs in history (MMO-population 2023), "an online fantasy title in which players, in the guise of self-created avatars - night-elf wizards, warrior orcs and other Tolkienesque characters - battle their way through the mythical realm of Azeroth" (Dibbell 2007). The title - like most popular MMOs at the time - is subscription-based (Karthikeyan, 2022), a business model that relies on player retention to be economically successful, i.e. "the goal is not so much to have as many consumers buying the game as possible but to have them playing the game as long as possible" (Debeauvais et al. 2011).

According to Robischon (2007), the following resources are particularly needed by the majority of players who log on to WoW daily:

- Gold coins "to pay for the virtual gear to fight the monsters to earn the points to reach the next level" (Dibbell 2007).
- High-level characters, since "experiencing all the content programmed into a world requires players to develop their characters to the highest level" (Bartle 2004).
- In-game items that can have "several quality rankings inside each level tier" (Hamari and Lehdonvirta 2010) and serve a similar function to coins, except that they are specific items rather than the currency that enables their purchase (Heeks 2008).

Like MMOs at the time, WoW does not allow purchasing these or other in-game items (Lehdonvirta 2009). Dibell (2007) presents a dichotomous situation for players of WoW and similar games, who can only obtain the items they need in one of two ways: "They can spend hours collecting it or they can pay someone real money to do it for them". Under this premise, a practice known as "gold farming" began to develop, which, in the words of Ge (2021), a researcher and director of the documentary *'Gold Farmers'*:

> "At the time, tens of thousands of young Chinese[3] were making a living by playing online games like *World of Warcraft*. They earned in-game currency and equipment, then sell them to players outside of China for real dollars. Such activities are known in the gaming circle as *gold farming*, and these working players were called *Gold Farmers.*"

However, as Heeks (2008) states, "In a strict sense, one should probably see gold farming and [...] RMT as two parts of the same value chain: the former being the production, the latter being the trade". Understanding gold farming as a way of how RMT materialises allows us to address the question of the strategies companies like Blizzard use regarding gold farming, as it is consistent with their position on RMT.

Company practices towards RMT practices

In the words of Heeks (2008): "There is little doubt that gold farming violates the agreements and terms that most game companies set up for their MMOs". However, when it comes to taking a stance, Castronova (2002) raises the question of the potential benefits for development companies.

On the one hand, the same author (2006) argues that a particular policy intervention —or 'fight it' strategy in the words of Heeks (2008)— would be justified because allowing RMT is more costly to companies than the benefits the practice can bring. Companies can reinforce this strategy through policy interventions such as nerfing, account banning, patching, IP banning, blocking third-party channels and legal action (Heeks 2008).

On the other hand, according to Huhh (2006), RMT-related practices bring with them the value of "critical mass that leads a game to much larger user base" (Huhh 2006) and also create a Pareto-improvement situation, i.e. without RMT, the commercial and financial success of an MMO would not improve and could even worsen (Huhh 2006). Heeks (2008) takes a similar approach to Huhh, stating in his paper that "gold farming brings benefits to these companies [...] (so) doing nothing about gold farming also costs nothing whereas doing something costs money in staff time and other resources" (Heeks 2008). This understanding of RMT leads to two possible additional approaches.

Companies can, for instance, take a literal approach to the words of Heeks (2008) and do nothing about gold farming, a strategy the author refers to as '*ignore it'.* Alternatively, companies can understand the RMT and its practices as something positive. Heeks (2008) develops three strategies that companies can adopt from that viewpoint:

- *'Permit It':* RMT and derived practices no longer violate the terms and agreements, so companies that adopt this approach formally support the creation of RMT portals on third-party platforms.
- *'Host it':* instead of RMT taking place on third-party platforms, the company hosts the environment where RMT occurs within the game.
- *'Become it':* instead of gold farmers playing the game to level up a character or acquire gold and items, the game company sells these resources directly to the players.

This first case study of RMT shows a practice developed externally for Blizzard, and while the practice goes against the terms and conditions of WoW, this does not mean that 'fight it' is the only valid strategy that the company can adopt in this regard. These other strategies that do not reject RMT are of much greater interest for the following case study, Diablo III.

The Auction House of Diablo III

Diablo III, like WoW, is an influential MMO released by Blizzard Entertainment (Radic 2021). "In Diablo the player levels and gears up her avatar by killing computer controlled enemies and collecting experience and the treasures the monsters leave behind. The equipment, armor and weapons of an avatar are decisive for its power" (Prax 2012). However, unlike the previous title, Diablo III is released as a full-price or premium game (Karthikeyan 2022) and relies on two pillars for its business model: the profits from the sale of game units and RMT, which takes place in the Auction House, a feature that allows players to trade their virtual items for real money (Prax 2012). Although Diablo III is not the first title to host RMT within its game space —EverQuest 2 (Sony Online Entertainment 2004) is the first dated instance (Heeks 2008; Prax 2012)— it is the first title to be designed and released with this feature in mind[4] (Prax 2012).

Diablo's III Auction House uses the game's currency, gold, by default (Prax 2012). However, the space also allows the use of real money. To do so, "players either have to charge (real money to) their account on the Battle.net, Blizzard's distribution and online-play network [...] or earn this money by selling virtual goods" (Prax 2012). As Heeks (2008) points out, hosting RMT may allow companies to receive a commission on each transaction. This is indeed the case in Diablo III (Prax 2012), where Blizzard receives a per-transaction fee and another fee "for cashing the money out to one's bank account" (Prax 2012).

As a result, many players realised that the best way to get the best items in the game —something essential to the core Diablo experience (Prax 2012)— was to pay for them and not play the game. Diablo's III auction house was permanently shut down just two years after its release. This closure was justified by Blizzard's claim that the auction house "undermines Diablo's core gameplay" (Hight 2013).

While the Auction House was novel in that it was the first attempt to incorporate RMT into a game's design before its release, it did not ultimately work out the way Blizzard expected. This is not the case with Axie Infinity, our subsequent case study.

Axie Infinity and Play-to-Earn (P2E)

Axie Infinity is one of the most popular titles within the recently conceived Play-to-Earn (P2E) monetisation model. A monetisation model built around allowing players to earn profits through game items (Scholten et al. 2019), where transactions between players are necessary for the game to function (Kruppa and Bradshaw 2021; Parayno et al. 2023), and identified by Parayno et al. (2023) as the latest manifestation of RMT.

Axie Infinity can be defined as an "idle battle" strategy game (Axie Infinity 2021) "revolving around Pokémon-esque creatures known as Axies" (Murphy 2022). To start playing Axie, players must acquire three Axies —that act as playable characters in the

game— from the Axie Marketplace[5] (Naavik 2021; White 2022). Once players get access to the game, they can obtain a currency called Smooth Love Potion (SLP) as a reward. A currency that can later be exchanged for real money (Kruppa and Bradshaw 2021) or used to "breed" new Axies to improve your team or trade on the Axie Marketplace (Kruppa and Bradshaw 2021).

These features make Axie Infinity —and by extension, P2E— games in which" the game economy relies on new player growth to remain in balance. [...] The amount of players is not essential if there's no growth" (Kruppa and Bradshaw 2021). By posing the dichotomy between extracting one's profits —quantified in SLP— or reinvesting the same resource back into the game —creating new Axies that require an active Marketplace to have value— there is a risk that players will cash out and the value of the SLP will fall (Kruppa and Bradshaw 2021). A consequence of this type of business model is that developers must act as "central bank(s), making [...] tweaks to control inflation and other economic variables" (Kruppa and Bradshaw 2021).

In Axie Infinity, as in P2E, RMT plays a central role in the proposed gameplay experience; this requires Axies to be perceived by players as valuable items, making transactions the natural form of interaction between users. Having developed these three case studies, which allow us to observe the evolution of RMT over the last two decades, we will now elaborate on our findings.

FINDINGS

By examining RMT through case studies, we have observed: first, a change in the role of RMT within video games; second, the cross-cutting use of mechanics and mechanisms that encourage item trading; and third, the emergence of a particular type of player practice as a result of RMT.

The role played by RMT

Our first finding is a shift in the role that RMT plays and the practices that accompany it, both in the game experience and the development of games. This observation stems from companies' strategies concerning RMT and how central this monetisation method is to the title.

In the case of WoW, Blizzard adopted an 'ignore it' strategy in the early stages of the game, but in 2005 began to openly adopt a 'fight it' strategy, applied through the use of patches, bans and legal action (Heeks 2008). This strategy aligns with the company's core values (Blizzard Entertainment n.d.).

However, with Diablo III and its Auction House, Blizzard has adopted a 'host it' strategy that makes RMT part of the intended game experience (Prax 2012). The company also positions the Auction House as one of the game's key selling points at launch and as an example for the industry (Schreier 2011). Prax (2012) argues that through the Auction House: "Blizzard is not acting according to its own core value(s) but instead following suggestions from marketing research and let the design follow the business model".

In the case of Axie Infinity, Sky Mavis has adopted a strategy that has some of the characteristics of 'allow it', 'host it' and 'become it' as defined by Heeks (2008), without explicitly being any of them. We find a title that, by using P2E as a business

model, places RMT as one of its main pillars, affecting not only a part of the game that can be taken away —as happened with the Auction House— but every single aspect of it (Nichols 2021; Scholten et al. 2019).

Therefore, RMT's role has shifted from being an external and player-driven practice, developed outside the game space on third-party platforms and pursued by development companies, to being fully company-driven and central to the game experience —a trend anticipated by Castronova (2004) —.

Encouraged item trading

The use of attributes/motivators, mechanics and player perception to increase the value of in-game items is also evident in all titles analysed, regardless of their RMT strategy.

Cross-sectionally, we identify items that exploit the attributes/motivators of item purchase: task/functional, looking visually unique/emotional and social (Lehdonvirta 2009; Prax 2012; Scholten et al. 2019), as well as the use of virtual currencies for exchange between the game space and the real world —such as gold in WoW and Diablo III and SLP in Axie Infinity— which Hsee et al. (2003) found to have a clear impact on individuals' rational purchase decision behaviour.

In WoW, Hamari and Lehdonvirta (2010) report using mechanics that encourage item acquisition, such as tiered content, status restrictions, item degradation, inconvenient gameplay elements, and special occasions. Prax (2012) notes that Diablo III does not have mechanics that limit the impact of RMT, such as soul binding (Prax 2012). In the case of Axie Infinity, the title is accompanied by a narrative in which the sense of ownership and the sale of time and effort to promote item transactions are fundamental (Wells and Egkolfopoulou 2021), with items designed to be artificially scarce (Sinclair 2021).

Following the approach of Hamari and Lehdonvirta (2010), this finding points to the instrumentalisation of game items by video game developers, who endow game items with value through a set of practices, mechanics and narratives that authors such as King and Delfabbro (2018) and Sormunen (2019) describe as unfair, deceptive, aggressive and predatory, leading to the development of addictive behaviours and tendencies in players.

RMT-derived player practices

Finally, it can be observed that several labour-like behaviours and practices are repeatedly produced and reproduced by players in titles with RMT, especially if we look beyond case studies and focus on gold farming, the Auction House and P2E.

In the case of gold farming, the practice led to the creation of "virtual sweatshop(s), wherein employees operate under the absorbing rigors to [...] 'farm' virtual gold" (Goggin 2011) and which Dibbell (2007) describes as follows: "Twelve hours a night, seven nights a week, with only two or three nights off per month, this is what Li does - for a living".

Meanwhile, the Auction House promotes the self-exploitation of the players "by putting them to work to generate profits for the company" (Prax 2012) through the

“act of creating virtual items through repeatedly killing bosses to then sell the items to other players” (Prax 2012).

P2E games “emerged as a gig opportunity despite the absence of regulations” (Parayno et al. 2023). An ‘opportunity’ that not all players can afford because if a P2E game is popular enough and in sufficient demand, the economic entry barrier into the game may be so high that many players cannot afford it. A situation that leads to the emergence of a practice known as scholarship programs, whereby a player or organisation acquires the items necessary to play the game and subsequently allows another user —known as scholar— to play with them, who, in return, gives a large portion of their earnings to the scholarship program (Kruppa and Bradshaw 2021; Wells and Egkolfopoulou, 2021; White, 2022). Specifically, in the case of Axie Infinity: “somewhere between 60% and 65% (of players) are scholars [...] from low income regions [...] whose foremost motivation is to earn money” (Naavik 2021).

Such practices, which “drive fans to engage in play that is highly profitable” (Goggin 2011), encourage self-exploitation and abuse among players (Keogh 2023; Prax 2012; Sormunen 2019) and operate in a way that is more akin to work than play; something that authors such as Heeks (2008) Prax (2012) and Parayno et al. (2023) refer to as the hybrid concept of playbour (Goggin 2011; Kücklich 2005).

CONCLUSION

Throughout this paper, we have observed that RMT is a phenomenon that is becoming increasingly prominent as development companies take more control over it. A monetisation method or model that leads to the use of mechanics and mechanisms that instrumentally promote the purchase and sale of in-game items while encouraging the emergence of practices that meet the definition of playbour among players.

The above findings speak to us of a paradigm shift in RMT, an outsider phenomenon (Whitson 2012b) in its origins, which, after demonstrating its ability to generate revenue in the titles in which it occurs, is incorporated and rationalised (Tschang 2007) by the video game industry, promoting it to the status of a full-fledged monetisation model, reaching its maximum level of materialisation to date with P2E. A monetisation model that, in order to be profitable, must offer players the possibility or promise of an economic return on their play time (Kruppa and Bradshaw 2021; Prax 2012).

Under the premise of RMT as a monetisation model rationalised by the video game industry, we can better frame our findings and elaborate on their implications. Development companies, driven by the economic benefits that RMT can bring (Petrovskaya and Zendle 2021), seek to maximise the profits of the model and are “forced to act according to financial considerations and not artistic or ethical ones” (Prax 2012). Consequently, the main goal of the resulting games “is not to create a [...] desirable place of play [...] (but) a profitable enterprise” (Whitson 2012b, 169), and which, in the case of RMT, produces titles that blur the boundaries between play and work (Abend et al. 2019; Keogh 2023; Prax 2012; Whitson 2012b) and where “commercial videogame firms capture and exploit the creative and passionate labor of [...] players” (Keogh 2023). A process of rationalisation that further transforms what a video game is and what it means to play, thus redefining the spaces in which play takes place.

If a video game is designed to change people's attitudes or behaviours towards a desired goal such as the purchase and sale of items, the ludic aspect of the game-player relational dialogue is removed and therefore, the 'magic circle' that has allowed virtual worlds to render unique and valuable to players is erased (Castronova 2004; Fogg 2003). The effects of placing this type of 'high extrinsic motivation' at the heart of a video game monetization model has been the subject of research and concern (Delfabbro et al. 2022; Mills et al. 2018; Whitson 2012b, 86) as play ceases to be voluntary and "becomes a means to an end, rather than an end in itself" (Whitson 2012b, 316) by becoming a productive activity.

While one might think that being able to be productive while playing a video game might be a step forward as play becomes something else, in fact, "those of us who play become tools used by production to keep the wheels turning. Players are thus exploited with the unwitting consent [...] of the players themselves" (Flores Ledesma 2022, 210-211). As a result, playgrounds 'workify' (Abend et al. 2019) and irrevocably, become 'workgrounds'.

These redefinitions of video game, game and playground are an invitation to reflect further on the current socio-economic context, marked by postmodernism and neoliberalism, in order to find legitimacy among players (Goggin 2011), as well as on the labour-nature relationships that develop between players and developers, which is particularly relevant in light of the emergence of P2E as a maxim of RMT.

RMT distorts video games and their perception, turning them into tools that teach players that "there are no boundaries between self and market. Later, these players will wonder how it could ever have been different. We invite reflection on other ways of imagining video games.

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ENDNOTES

1 Within the framework of video games, we understand systems as "a set of parts that interrelate to form a complex whole" (Salen and Zimmerman 2004).

2 Zackariasson and Wilson (2014) identify six (6) actors involved in the usual value chain of the video game industry: developer, publisher, distributor, retailer, customer and consumer.

3 Heeks (2008) estimates that around 80-85% of gold farming takes place in China.

4 In previous cases such as EverQuest 2, the developer “only opened the market place [...] as a reaction to ongoing RMT outside of the software of the game” (Heeks 2008; Prax 2012).

5 The cost of the three Axies needed to play Axie was over $1000 by the end of 2021 (Wells and Egkolfopoulou 2021).