Gamers as a Commodity: Mining Players for Profit

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Abstract

This paper was originally written for Dr. Jacqueline Nelsen's CMPT 105W course, *Social Issues and Communication Strategies in Computing Science.* The assignment asked students to explore and persuasively answer a chosen question related to the ethics of data collection and consumer profiling. The paper uses IEEE citation style.

Introduction

Over the course of the last decade, it has become increasingly difficult to avoid video games. Games are in our pockets, on our computers, and now, even being broadcast on traditional sports channels like ESPN [1]. Some universities even have e-sports scholarships for top players in games like *Rocket League* and *Overwatch* [2]. Video games are becoming increasingly woven into people's lives and as a result, behavioural data on gamers all over the world is being collected. Consequently, players are often viewed simply as statistics to be exploited for business purposes. The terms and conditions of games still do not often create a barrier for gamers, which gives rise to two questions: are we just data points? What does consumer profiling say about us? As games become more popular and players become aware of being mined for data, the call for more stringent regulations is getting louder. However, one opposing view holds that gamers are ultimately responsible for regulating themselves. Gamers often make a deliberate choice to spend large amounts of money or time on games, after all. Still, several mechanisms exist in games that make addiction and spending harder to stave off for those who are more vulnerable. Ultimately, behavioural data is still used to target players for monetization purposes, which raises negative issues surrounding player commodification, addiction, and regulation.

Players as a Commodity

Players are often treated as sources of valuable data for game companies for marketing and monetization purposes. Behavioural data collected during interaction with a game's ecosystem offers meaningful insight into what players respond well to and what they are likely to spend time and money on. Of particular interest is the 'free-to-play' (or F2P) business model, which involves offering a game for free, but offering items, upgrades, or services for sale in-game [3]. By eliminating the purchasing barrier, the company likely attracts a larger

player base, therefore exposing more people to tempting deals. Due to the specificity of data collected on consumers, the concept of 'consumer commodification' has become popular to apply to the free-to-play business model of video games [4]. Consumer commodification was introduced by Dallas Smythe in 1977, who theorized that consumers unknowingly act as marketing tools for corporations by simply participating in the consumption of products [5]. In the modern age, this seems to be increasingly true due to the sheer amount of personal information consumers provide. For instance, the company Quantic Foundry collects data from players via their Gamer Motivation Profile service, which offers people insight into their own habits and gives game recommendations accordingly. As noted on Quantic Foundry's website, this aggregate data is also sold to game developers due to its utility [6]. Players – whether they know or not – are inadvertently gifting their data to developers as a commodity by trading it for goods and services.

While their behavioural data is valuable, the players themselves are also evaluated for their monetary worth to a company. Research conducted by Sebastian Voigt and Oliver Hinz suggests that data about a user's first purchase in a game can predict their future value to a company. Their study found that players who spend early, spend more, and spend on credit tend to hold a higher value for a company in the long run [7]. Sometimes, games are released for the express purpose of data collection and sale, such as the adorable and unassuming Nintendo game *Miitomo*, which was almost unabashed in its data-centric purpose. Once a user had linked their Nintendo account, the app frequently asked players questions about their personal preferences and made continued engagement with it hard to resist by offering rewards and daily prizes [8]. As a player spends more time in a game, their data set grows, and so does their worth to the company.

Side-Effect: Addiction and Gambling

Treating players as data points alone can cause game addiction and excessive spending. Some game companies may turn a blind eye to the risk of gaming disorder and overspending in the name of business. A wide range of monetization methods have emerged that closely resemble gambling, such as 'loot boxes' (which are a mystery assortment of digital items) and betting on e-Sports [9, p. 2]. Targeting and designing games based on behavioural data even has some developers concerned that it is paving the way for future misuse. In an interview with Polygon, developer Sam Barlow said he felt like he was spying on people when working on *Silent Hill: Shattered Memories* because the data painted such an accurate picture of a person's moral standings. Developer and AI expert, Alex Champandard, also poignantly expressed his concern: "The big risk is that it becomes weaponized addiction, that you design a game to manipulate someone's physiology and dopamine responses with content" [10]. Creators themselves are becoming worried about the granularity of information being collected, yet

marketing-centric design pushes forward. Seeing players as personality profiles, not people, hand-waves away potential addiction issues and can bring about potentially harmful pinpoint targeting in the future.

There are also monetization methods that leave some players vulnerable to social pressures or impulsivity. One such pressure is Fear-Of-Missing-Out (or FOMO for short). Fear of missing out of limited-time events, digital assets, or social norms drives many gamers to spend too much time in-game or to impulsively spend money [11, p. 7]. A potential argument against this stance is that gamers make a deliberate choice to spend their hard-earned money or time because, understandably, they want to. Because it is a hobby, many players invest in a game for social reasons, pure enjoyment, or for self-expression through their characters [12]. Another source of motivation might be to show support to the developer and encourage further content creation through the act of purchasing [13, Sec. III]. However, there still exist many game mechanics that are specifically made to entice gamers into spending time or money. Consider, for instance, 'grind-versus-pay' mechanics, which give users only two choices: pay for the desired item or upgrade, or spend a long time completing mundane and repetitive tasks to acquire it [14]-[15]. Evidently, this sort of mechanic purposely depends on impatience or self-indulgence characteristics to succeed and it is not the only monetization method that depends on personality shortfalls.
Pulling at a player's heartstrings also acts as a strong driver for emotional investment, indeed ensuring that they keep coming back and spending on their avatar [16, p. 87]. Also, some loot box mechanics only give exclusive prizes once a series of other items has been acquired, thereby leading players to keep taking chances on loot boxes [17, Sec. II, Pt. 2]. Trying just one more loot box or spending just a few more minutes in the hopes of a rare item or achievement is the trap many gamers fall into. In short, while gamers do make a conscious choice to invest time or money in a game, current monetization and marketing methods have made some people more vulnerable to modern tactics.

A Call for Regulatory Measures

Further regulatory measures need to be taken by both governments and companies to prevent further use of predatory monetization methods. While many gamers may be able to stave off addiction or overspending, protections still need to be in place for those who are more prone to these issues (i.e., certain personality types and children). Some purchases made within a game (called 'microtransactions') like loot boxes are akin to long-standing methods of gambling, and while some suggested guidelines are already in place, further protections are needed [18, p. 169]. Unfortunately, the speed and proprietary nature of the game industry makes it hard to regulate, so some academics are calling for governments to force game companies to make their data available to researchers [19]. The game industry needs to hold itself accountable for the risks

associated with its business model.

More regulation is necessary because people are already calling for government intervention and industry accountability. Players are unhappy and, accordingly, are demanding that predatory microtransactions not be included in games. For instance, when excited fans of the *Star Wars* franchise encountered a heavy emphasis on loot boxes in *Battlefront II*, they succeeded in pressuring its publisher, Electronic Arts (EA), to remove them [20, Sec. I]. A victory over a gaming monolith like EA sends a clear message to the industry, but this was a temporary victory due to their business model's dependence on microtransactions [21]. Big game companies still need to make money somehow, but evidently, current methods are not readily accepted by consumers. Still, outside pressure from gamers, academics, media, and government may yet change how games are monetized and force publishers to rethink their business models.

Conclusion

Games are here to stay, and as with all new technologies, there are wrinkles to iron out. Due to the steady rise of humanity's digital dependence, concepts like consumer commodification are even more applicable than before because of data collection. Gamer personality profiles inferred from collected information can be used against the player themselves. Consequently, forgetting about the real person beyond the screen can have serious effects on their real lives, sometimes leading to gaming-related addiction and gambling. Thankfully, as the game industry continues to grow and change, players are realizing what issues face them as consumers. Players are becoming aware of the data they give to developers, and they notice when advertisements are targeted based on their activity. Furthermore, developers themselves are becoming weary of how personality data might be exploited in the future. For now, gamers are just data points, spending habits, or behavioural profiles, but predatory monetization techniques will not go unchallenged by them for much longer. The gaming community has an opportunity now to push for a higher standard of consumer care before exploitation of their data gets even more out of hand.

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