

The Legality of Botting and Real Money Trading in online MMORPGs

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MMORPG (Massive Multiplayer Online Role Playing Game) is a very popular genre of online video games. In this genre of video games, players generally control a character, level him or her up, and amass a store of in-game currency that is used for trading between players or further leveling and improvement. Players can gain this currency by doing in game tasks, ranging from battling other players, doing quests, or gathering resources to sell to other players. The most widely known MMORPG is World of Warcraft by game company Blizzard with millions of active subscribers (Heeks, 2008). Other popular MMORPGs include EverQuest II, Guild Wars 2, Runescape, and Lord of the Rings Online (Keegan, Ahmad, & Williams, 2011).

One popular in-game practice is gold farming. Gold farming is the repeated gathering of certain resources or items in game with the intent to sell for in-game currency (Keegan, Ahmad, & Williams, 2011). Gold farmers are known for doing repetitive tasks for hours on end in order to inject raw materials into the economy, ultimately netting them a constant stream of virtual currency. Gold farming alone is perfectly acceptable and within the rules of the game. However, due to the repetitive nature of these tasks, gold farmers sometimes use automated scripts or “bots” that repeatedly gather resources in the absence of the player’s presence. Further, some gold farmers then sell the in-game currency for real world money, an action termed “real money trading” and abbreviated “RMT” (Keegan, Ahmad, & Williams, 2011). Real money trading poses many problems for MMORPG companies and players, and botting companies

have even been the focus of crippling lawsuits. Both scripting and the sale of in-game currency for real world money are violations of the MMORPG's terms of service, but they are not explicitly illegal. Do these actions cause significant harm within or outside games – enough to warrant legislation that could outright ban them? Important considerations include the prevalence of botting and real money trading, the black market nature of such trading, the demographics of consumers and operators, the tax implications of virtual trading, and the existence of previous legal decisions in courts.

The mechanics of gold farming (more broadly farming) and botting vary slightly depending on the MMORPG, but they fall into various shared categories. Types of farming include resource or currency farming with the intent to real money trade, power leveling with the intent to sell the account once it reaches a certain level or status, and completion of various difficult or tedious in-game activities for a player in exchange for real world money (Reeks, 2008). Types of botting include automation of any in-game activity through the use of one or more of the following: programmatic color detection, auto-typing, auto-clicking, client code injection (for example, intercepting incoming network packets), and the programmatic reflection of in-game code (Woo & Kim, 2012). Given the numerous combinations of farming and botting techniques, these actions can have a considerable impact on in-game economies. Certain activities become much less profitable for real players due to a rise in supply, the integrity of the game is damaged since players can buy their way to the top, and the in-game economy, intended to be completely internal to the game, experiences instability due to an unhealthy reliance on gold farming bots (Keegan, Ahmad, & Williams, 2011). One might scoff at the idea that these activities could possibly create any real world impact. However, estimates of

the gold farming sector have ranged from \$200 million up to even \$1 billion and above (Heeks 2008).

Due to the prevalence of botting and real money trading in MMORPGs, game companies employ many different methods to detect and purge these offenders. Common methods of detection include the institution of a reporting system where other players can report suspected bots, automated analysis of gameplay patterns to detect repetitive patterns, manual intervention by employees, and in some games such as World of Warcraft, an additional program that tries to detect illicit botting software (Woo & Kim, 2012). Upon detection of botting or real money trading, game companies may issue permanent account bans or even IP bans on large scale offenders, essentially banishing the player account from the game. This is only a minor roadblock for most gold farmers as they often have several accounts, with a new one created by the click of a mouse. Virtual Private Network (VPN) services also allow offenders to easily evade IP bans due to the cycling of IP addresses (Personal experience). Discerning the difference between a botting gold farmer and a dedicated player can be a very difficult task and requires fine-tuned data mining techniques that themselves are not 100% accurate (Heeks, 2008). Chances are the banned botting gold farmer pocketed a sizeable profit before being purged. Some online games rely on legal ways of real money trading; Second Life players can purchase and sell in-game property and EVE Online players can purchase and sell in-game ships (Keegan, Ahmad, & Williams, 2011). Jagex, the company that developed the MMORPG Runescape, introduced an in-game item called a bond that can be purchased for real money and either redeemed in game for membership or in-game gold (Personal experience). Although these mechanics do not completely discourage botting gold farmers, they certainly de-

incentivize real money trading for some players. Third party real money trading sites act as a black market; the average player is more inclined to use intended real money trading mechanics when available.

Interestingly, according to research by Keegan, Ahmad, & Williams (2011), gold farming and real money trading gives us a virtual means of modeling real world criminal networks, something that is not normally observable. Suppliers of the illicit virtual goods can be likened to real world drug dealers who are in hiding from the police, or in this case game company employees. In their analysis, researchers compared the CAVIAR network, a dataset of known Canadian drug traffickers, with data from the online MMORPG Eve Online II. They found a strong resemblance between the “dissortativity” of the CAVIAR network and the Eve Online II dataset, specifically with gold farmers. While sociable, well-connected MMORPG players (measured by trade networks) tend to be connected with other well connected players (termed assortativity), gold farmers tend to follow a different dynamic: well-connected players connect to poorly connected players and vice versa (termed dissortativity). The fact that these activities can be likened to criminal networks is a little worrying; should this activity be allowed in-game when it likens so much to an illegal activity in the real world?

Gold farmers, the players who actually farm the gold and supplies, often do so for the allure of generating income. In the case of botting, farmers can gather resources with little manual intervention, essentially generating free money. In the case of gold farming by actually playing the game, farmers usually like the game to begin with, so it becomes a mix of work and play. Interestingly, the largest group of gold farmers by far, an estimated 400,000 people (80-

85% of real money traders), live in China (Heeks, 2008). Referred to as Chinese gold farmers, these players are often employed by gaming workshops where they make a living off of gold farming and real money trading. Often working 12 hours a day 7 days a week, gold farming employees are sometimes referred to “virtual sweatshop workers.” Income varies by region and company, but current research suggests that workers could expect a salary of around \$100-\$200 a month. Although this sum is far below the minimum wage of the US, this salary can actually be better than salaries earned at other local jobs in China. In this sense, gold farming can actually have a positive impact on developing areas by generating new jobs and supplying a cash flow (Heeks, 2008).

On the other hand, gold buyers represent a wide range of social categories. In a survey by Debeauvais, Nardi, & Lopes (2012) on World of Warcraft real money trading habits, they found that home-makers, students, part-time employees, unemployed people, full-time employees, and retired people all make up the gold-buying demographic with Western players being approximately as likely to buy gold as Asian players. Out of all 2865 respondents, 14% had bought gold for World of Warcraft. These statistics suggest that there is nothing special about the gold-buying demographic. Oftentimes it is the average player that is tempted by the pay to win model. The researchers also found that players who took a break from playing the game, from 1 month to 1 year, were more likely to buy gold. Westerners in particular bought more gold the longer the break from the game (Debeauvais, Nardi, & Lopes, 2012). Due to the nature of MMORPGs, competition and pressure to level one’s character are often fierce, so it would make sense that players who take breaks from the game feel behind upon returning to the game, motivating them to buy gold to get ahead. A Kantian would disapprove of this

reasoning to buy gold. If every player were to buy gold just to get ahead, the entire integrity of the game would be ruined. Hard work in the game would go unrewarded, and players who do not wish to spend real world money on the game would be inferior. Most players, however, probably take a rule utilitarian view of the situation. To the player, the immediate effects of real money trading are miniscule and seemingly positive. The player receives a shiny stack of currency for a small price, and the seller receives compensation for his or her service.

Due to the nature of real money transactions, many of these transactions slip under the radar for tax purposes, however, income from real money trading is understood to be taxable according to current tax codes (Bingisser, 2008). Evasion of taxes for small-scale, uncommon markets is unlikely to attract much attention from the IRS, so the question becomes: how large is the RMT sector? According to Heeks (2008), estimates of the RMT sector range from \$200m up to even upwards of \$2bn. With hundreds of thousands of gold farmers and tens of millions of MMORPG players and growing, the RMT market is significant. Although aggressive RMT taxing might not be a concern at the moment, we could expect it to attract more attention given a large enough growth.

Although the law does not say anything specific about botting and real money trading, game companies have successfully sued botting and power leveling companies. In one case, World of Warcraft (WoW) creators Blizzard Entertainment sued Game Dollar LLC, a popular WoW power leveling website (Heeks, 2008). Rather than using the basis that this LLC violated the terms of use (which is usually not enforceable in a court of law), Blizzard entertainment claimed that Game Dollar LLC disrupted Blizzard's computer service, interfered with the terms

of service contact between players and Blizzard (through repeated in-game advertising), and operated with unfair competition towards Blizzard. Blizzard won, and Game Dollar LLC was forced to end their power leveling services. In another case, Blizzard Entertainment sued MDY, the creators of the popular WoW bot GliderBot based on claims of copyright infringement and circumvention of copyright protections (McSherry 2010). Ultimately, a judge ruled MDY did not violate any copyright since licensing terms are promises and do not limit the scope of copyright licenses. They did find, however, that MDY was liable for circumventing World of Warcraft's anti-cheating program, Warden, leaving them punishable under the Digital Millennium Copyright Act. These rulings establish very strong precedents for the legality of botting and gold farming groups. With enough protection from the game company and enough negative impact on the game (disruption of players' game experience leading to decreased game operation), these rulings suggest that botting should be illegal and enforceable as disruptive of profitable business operations.

Are these botting and power leveling companies unethical? A Kantian would certainly consider Game Dollar LLC's actions to be unethical by the second formulation of the categorical imperative. The second formulation of the categorical imperative says that one must not treat the party or service as a means to an end. Game Dollar LLC treated Blizzard's chat service as a means to an end during its use of the chat system as an advertising medium for monetary gain. A Kantian would view MDY's actions as unethical by the first formulation of the categorical imperative: one should act in ways that would be acceptable if everyone were to do it. If everyone were to use botting software to play MMORPGs, the entire enjoyment and point of the game would be destroyed. Players would be left with no reason to use botting software

anymore. Of course, humans are often not worried about the ethicality of actions and are instead more interested in how they can benefit from actions. This is certainly the case with these types of companies.

Concerning real money trading specifically, Yoon (2004) presents two views of its legality. One view supposes that users are given the right of use to a copyrighted item from the game company. A user with an in-game warhammer only owns the right to use that item; selling the item for real world money would be a violation of copyright. Another view is based on Yoon's idea of "gwonri-geum:"

“'gwonri-geum' is the value of a business over and above the combined value of tangible assets. 'Gwonri-geum' is, therefore, assessed and paid for, separately from the security deposit and monthly rent received and paid between a lessor and lessee or a sublessor and sublessee, or between a transferer of a lease title and a transferee, and may be in cash or in kind.” (Yoon, 2004)

In the case of a lease title transfer, an example of 'gwonri-geum' could be the payment of money to the owner of the lease by the purchaser for the sole reason that the lease owner established a very good reputation for the property during ownership (this could include social, financial, or regulatory investments). This 'gwonri-geum' is an additional payment on top of normal payments for the recognition of intangible value. If applied to real money trading, 'gwonri-geum' is the exchange of real world money with in-game currency or items. This 'gwonri-geum' transaction recognizes the intangible status and value of the in-game items during exchange (Yoon, 2004).

This is an interesting dynamic, but how is this type of transfer legally recognized? Due to the pervasiveness of this dynamic in the rental market, the Federal Trade Commission has ruled that rental agreements cannot contain clauses that prohibit the transfer of 'gwonri-geum,' as this would violate the right of a person to freely enter contracts with others (Yoon, 2004). When applied to the real money trading scenario, this ruling suggests that game companies would not be able to legally prohibit real money trading in a court of law. This does not stop companies from prohibiting real money trading in their terms of use, but this would prevent game companies from litigating with real money trading alone.

MMORPG companies are very serious about quelling the botting and real money trading communities, and for good reason. Botting can have serious effects on the in-game economy, and the real money trading sector has grown to hundreds of millions of dollars. Fortunately for game companies, legal proceedings have suggested that botting can be detrimental enough to the quality of the game to justify legal intervention. Although terms of use contracts are not enforceable in court, circumvention of bot-prevention programs can be a violation of the Digital Millennium Copyright Act. Real money trading, on the other hand, operates in a much more ambiguous territory. A right-of-use argument suggests that real money trading is a violation of copyright due to the illicit trading of copyrighted items. However, a 'gwonri-geum' argument provides a more compelling argument for the legality of real money trading, suggesting that these informal trades exist within the rights of a person to freely enter contracts. Due to the rise in popularity of MMORPGs, the monetization of in-game items and currency is expected to increase. Since the law often moves slower than technology, we could expect a more universal ruling to be made with the development of an even more prevalent RMT sector. RMT is more

secretive than botting, and it could take some time before it is directly addressed as an operation in itself that disrupts games enough for direct legal action, if ever.

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