

What Counts as Work?  
Gear, Grinding, and Gold Farming in MMORGs.

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Over the past several years, massively multiplayer online games, or MMOGs, have risen dramatically in popularity. While the fields of economics and law have been quick to provide a substantive analysis of the economic and legal implications of these new virtual worlds, these new realms have been largely ignored in the discipline of political science. This paper focuses on one dimension of the issues raised by MMORPG activity, their impact on understandings and definitions of work. The paper shows how the patterns of activity inherent to MMORPG participation directly challenge existing categories of what constitutes labour, and how they raise questions about the production of value, ownership, and remuneration in society.

## Introduction

Most people have an intuitive understanding of labour and work, but in practice, defining the terms can be problematic. One common definition of work characterizes it as a commodity with a market value. This understanding is typified by the definitions used by Statistics Canada or the System of National Accounts. For decades, however, feminist scholars have challenged this definition, pointing to the unpaid hours of labour women contribute. This has led to a number of methods for determining the value of labour, the simplest of which involve determining what the labour would be worth had it entered the market as a commodity. For the purposes of this paper, labour will be understood in terms of human activity that generates value, the latter understood in terms of an outcome to which a potential market price can be attached. Operating within this broader understanding of labour, the activity of MMORPG participants can be understood as not only unpaid labour, but an opportunity to labour for which, in many cases, the labourer pays.

Over the past several years, massively multiplayer online role playing games (MMORPGs) have garnered increasing attention from legal, economic, and sociological theorists, and even a cursory examination suggests why. First, the scale of participation is staggering. A 2004 estimate places the number of active subscribers to MMORPGs (defined as those currently paying monthly subscription fees) worldwide at over 100 million (Luse, 2004: 1). A more recent estimate of the global market for such games was \$US12.6 billion ((Lehdonvirta and Ernkvist: 2011). Some of the most popular MMOGs have in excess of 10 million active users. In Korea, a hotbed of MMOG participation,

two-fifths of the population spend more time playing a single MMORPG (the Lineage series of games) than they do watching television. The convertibility of in-game resources to real-world dollars has allowed economists like Edward Castronova to calculate GDP values for some MMORPGs. For example, in 2001, the game world for Everquest, Norrath, had an estimated GDP of \$135 million (\$2,266 per capita), a figure which placed the virtual world slightly ahead of Bulgaria and only slightly behind Russia (Castronova, 2001: 32). This same convertibility has led legal experts to investigate implications of MMORPGs for intellectual property, taxation, and human rights issues (Lastowka and Hunter, 2004a and 2004b; Jenkins, 2004; Fairfield, 2005). Despite the evident applicability of political theory and concepts to these emergent environments, the response of political analysts to the phenomena can best be described as anemic.

The paper is organized in five main sections. It begins with a preliminary discussion of what MMORPGS are and how they function. The paper then moves on to a discussion of “gear”, the virtual artifacts for which MMORPG participants labour. It then discusses the grinding process, through which MMORPG participants gain gear. The paper then discusses the practice of gold farming, in which real-world economic differentials make MMORPG activity a viable, if quasi-legal, source of income. The paper concludes with a discussion of how each of these elements speaks to and problematizes dominant conceptions of what constitutes work and labour.

### Part 1: The Worlds of MMORPGs

MMORPGs consist of persistent, computer-generated environments in which large numbers of human participants interact. Early examples of the phenomena were

text-based, but increasingly sophisticated graphics technologies allow current examples to present a highly rendered virtual world. The numbers involved are surprising for those unfamiliar with these environments. One popular MMOG, World of Warcraft (WoW), has over 12 million registered users, although this population is distributed across multiple servers, each of which replicates the game environment. (Blizzard: 2010) Large MMOGs often have continent-scale environments, taking hours or days of real-world time to traverse on foot.

Within these environments, players act through avatars, animated characters representing their in-game persona. Avatars move, speak, and interact with both AI-driven non-player characters and the avatars of other human users, pursuing goals consistent with the world theme. WoW players, for example, adventure both individually and in groups, achieving quests, gathering treasure, and developing skills through practice, such as hunting, cooking, or the manufacture of items. The experience of WoW has been equated by at least one author as equivalent to the Jungian “Hero’s Journey” (Lederman, 2007: 1626). The immediacy of these environments is difficult to relate to someone who hasn’t played in them. In a 2006 study, Yee gathered survey data indicating that over a seven-day period, 27% of respondents indicated that their most positive experience had occurred in-game, and 33% indicated their most negative experience had. Developing an avatar, colloquially referred to as “leveling-up”, involves accruing additional power, equipment, and abilities, represents hundreds of hours of effort, and is an intensely social pastime. Most games require players to cooperate with

varying degrees of coordination to achieve goals, and most players develop stable relationships with other players in-game (Yee, 2006).<sup>1</sup>

What distinguishes MMORPGs from more traditional computer games is their interactivity and persistence. When a player logs off, the world continues on without them; other players continue to interact with each other and the environment. World persistence permits the development of an in-game economy, and in some MMORPGs, these economies are highly developed. Larger cities in WoW, for example, contain auction houses where players can buy and sell items for a small fee. Informal markets also exist, and town squares are a reliable site to encounter other players looking to sell services for a fee. The currency of many MMORPGs is traded (legitimately or illegitimately) for real world currencies through eBay, IGE.com, and other online brokers in a phenomenon known as real money trading (RMT). The economic value of RMT is considerable. In 2005, the estimated value of these transactions was U.S. \$880 million (Starodoumov, 2005: 3), despite the fact that most of these trades are legally prohibited by mandatory end user license agreements (EULAs) packaged with the game.<sup>2</sup> A recent, and notable exception to this practice is Sony Online Entertainment, which in 2005 established an in-house service for the purchase and exchange of in-game resources and products. Indeed, there exists a growing community that derive their primary source of income from dealing in such goods (Dibbell, 2006).

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<sup>1</sup> Anecdotal evidence suggests that players take their play very seriously. Many players describe the games as “addictive,” and World of Warcraft is often referred to informally as “Warcrack.”

<sup>2</sup> The EULA for WoW, for example, prohibits players from “exploit the Game or any of its parts, including without limitation the Game Client, for any commercial purpose, including without limitation (a) use at a cyber cafe, computer gaming center or any other location-based site without the express written consent of Blizzard; (b) for gathering in-game currency, items or resources for sale outside the Game; or (c) performing in-game services in exchange for payment outside the Game, e.g., power-leveling;” (Blizzard, n.d.).

What makes these environments interesting to scholars is the scale of social interaction. MMOGs consist of self-contained societies, with their own rules and customs.<sup>3</sup> These societies interact with more conventional forms, presenting problems of regulation for states. At the same time, they evolve their own internal systems of governance in the face of efforts to subvert or transgress those systems, and offer the opportunity to model real-world behaviour in miniature. All of these problems can be productively addressed by political analysts.<sup>4</sup>

## Part 2: Gear and Gold

One core focus of play in MMORPGs is “gear”, the in-game virtual property generated through play. When one speaks of virtual property, the discussion is almost necessarily surreal. One is, after all, discussing fantasy weapons, spaceships, or real estate whose only existence is inscribed in the form of electronic code stored on a server system. The intangibility of these items, however, in no way reduces their utility or reality within their context of use. Nor does it eliminate their exchange value outside the game. “Gear”—particularly rare and powerful gear—is a core goal of many MMOGs, is often an important marker of in-game social status for the wielder, and has a significant

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<sup>3</sup> In Castronova’s (2001: 20) study, 20 percent of respondents said they “live in Norrath [the virtual world of Everquest] but travel outside of it regularly”, while 22 percent of respondents expressed the desire to spend all their time there. A full 40 percent indicated that if a sufficient wage were available in Norrath, they would quit their job or studies on Earth.

<sup>4</sup> The most obvious point of entry for political scholars are the potential legal and regulatory interactions between MMOGs and the state. These include such issues as defining and regulating virtual property, especially in terms of interactions between it and intellectual property. The legal questions, particularly those arising from intellectual property issues (c.f., MacInnes, 2006; Klang: 2004; Grimmelmann, 2006) and taxation (c.f., Terando, et al., 2008; Mennecke, et al., 2007; Lederman, 2007) have already begun to receive significant attention from legal scholars. In addition, regulatory systems are increasingly confronted by problems of expression and free speech (Ondrejka, 2004b), and of the notional limits of sovereignty in virtual environments (Burke, 2004). A critical factor cutting across these issues is the viability of the border between the virtual and the real in formulating policy.

game effect, magnifying an avatar's capabilities. At the upper levels of avatar progression, once it has reached the maximum limit for level advancement, the acquisition of increasingly powerful gear represents the only way to improve a character's abilities.

At the core of MMORPG participation lies a process of incremental improvement. Each session of play results in an avatar slightly better equipped to deal with the rigours of the virtual world. Gear is one of the primary mechanisms for generating these incremental increases to an avatar's abilities, typically an absolute or percentile bonus (for example, to an avatar's strength rating, or to a form of damage that avatar can cause). It is typically keyed to the avatar's level, with more powerful gear becoming available and usable at higher levels. Gear can also be distinguished by how it is sourced, and its degree of transferability. Typical categories of the former include gear that is openly available through computer-operated vendors ("vendor junk", gear that is produced by players ("craft items")), and gear that "drops", i.e., that has a random chance of being generated when a computer-operated opponent is defeated. The latter category can be subdivided into quest gear (which will only drop from a specific opponent) and more common gear (which will drop from any opponent of the appropriate level range). Quest gear is typical of instances, small micro-environments within the game world which will only hold a limited number of cooperating avatars at any one time (although instances replicated to handle a large number of simultaneous groups).

Categories of transferability include non-binding gear, which can be readily exchanged between avatars, bind-on-use gear, which can be transferred until an avatar equips it, and bind-on-pickup gear, which cannot be transferred after being claimed by an

avatar. Gear becomes especially important at higher levels. Most MMORPGs have a level cap, a point at which the inherent abilities of an avatar can no longer be improved (for WoW, this was initially level 60, but later expansions raised it to 70, then 80, and most recently, 85). Once an avatar hits the level cap, the only way to increase their abilities is to acquire better and more powerful gear.

Demand for gear, both within game economies and between game economies and the real world, is driven by a number of factors. Gear represents time investment, and there exists a considerable market willing to pay real-world currency for either gear or for in-game currency with which to purchase it. Games which allow for violent player vs. player interaction tend to generate a market in “twinking”. Twinks are secondary avatars for players with a primary avatar which have already hit the level cap. Using the resources of their main avatar (typically several orders of magnitude beyond those of a low-level alternate), players equip their secondary avatar with gear that affords them considerable advantages over first-time avatars of equivalent level. High-value, rare, and twink gear are readily recognizable in game, and avatars sporting them advertise their relative power and affluence within the game environment.

A critical thing to understand about gear and the economic behavior associated with it is that the system is a construct; the basic factors shaping demand and supply are artifacts of the MMORPG designers. The supply and scarcity of currency and gear is primarily a product of the availability it has through drops, expressed in terms of both the number of drop-sites and frequency. The issue of artificial scarcity complicates discussions of whether the process of acquiring gear constitutes labour, insofar as traditional theories of property are predicated on some association of value and scarcity.

The reason labour adds value—and provides a claim to ownership—is that the end product would not exist without the contributed labour. However, this argument becomes difficult to advance in the context of a MMOG because all scarcity within that environment is an artificial construction. Once the code for an item exists, there is no barrier to an infinite replication of the item represented by the code. In WoW, the Hunter's elite weapon, Themios the Darkbringer, is valuable and rare not only because of the effort involved in obtaining it, but also because the game code provides for it being rare and difficult to obtain. As Fairfield and Castronova (2007) point out, in leveling / advancement games like WoW, artificial scarcity and deliberate inefficiency are fun; they are, in fact, the point of the game. The value of items is represented not only by the time and effort spent by players to acquire items, but also by the time and effort spent by game designers in creating environments where it is possible to spend time and effort in order to acquire rare and desirable items.

Although fads can affect demand, the primary demand mechanisms are also a product of game design. Players are fully aware of the optimal gear configurations at different levels, and actively seek those combinations which best facilitate their strategy of play (solo vs. group, world exploration vs. located questing, etc.). The appropriate balance between supply and demand, and the manipulation of gear availability as games are expanded, are a central feature of MMORPG design. Bartle has characterized the economies of MMORPGs as “faucet / drain economies”, in that “wealth enters the system through drops from mobiles, the mining/harvesting of raw materials, as a reward for quests, and perhaps some other mechanisms too; wealth leaves through sales of goods to NPCs, sales taxes, wear-and-tear, consumption of components/reagents for

crafting/spells, and whatever other drains the designers can get away with” (Bartle: 2004, 18). The extraction of gear and wealth is in fact the most important element. A critical element of high-end gear’s scarcity and value lies in the fact that it is rarely transferable (i.e., is bind on pick-up, and can only be used by the avatar that acquires it).

## Part 2: Grinding

The primary investment a player makes when participating in an MMORPG is time. For a casual, first-time player of WoW, advancing an avatar to the level cap can take approximately 500 active hours of play, and could spend considerably more. An experienced player, familiar with the game environment and the available means of advancement, can halve that time. There are a number of guides marketed on the internet (primarily through fan forums, discussion boards, and other “metagame” websites) that advertise “power-levelling” schemes of 5-7 days active game time. Even if these claims are taken at face value, the amount of time spent generating a level-capped avatar in WoW is worth in excess of \$C1240.00 in wages at the Ontario minimum wage.

“Grinding” is the catch-all term used to describe both the process of levelling and that of acquiring high-level gear. Both processes require ongoing repetition of similar behaviour. The primary mechanism for levelling is the completion of missions or quests. Avatars are given tasks to perform by a computer controlled non-player character (NPC or “bot). These tasks tend to take the form of either resource gathering, opponent killing, or a combination, in which players must kill opponents which randomly drop the desired items until the required number is achieved. The ongoing process of obtaining quests, fulfilling them, and then returning to the quest provider to obtain credit and experience

(the accumulation of which leads to levelling when a benchmark amount is reached) makes up the bulk of MMORPG play. This cycle is punctuated in the levelling process by message quests, which typically direct the player to a new part of the game environment, and instances, specific, closed locations within the game environment which only a limited number of avatars can enter at any one time (although the instance itself will replicate to accommodate a new, limited group).

With the prospect of intrinsic avatar improvement (through the leveling process) removed, high-level gameplay in most MMORPGs focuses almost exclusively on successive repetitions of instances. Players group together to complete these instances, in order to acquire gear, that then allows players to engage more powerful opponents, dropping better gear, which in turn allows the play to engage yet another tier of even more powerful instances / opponents. High level opponents require large-scale player cooperation to defeat (in WoW, this requires groups of 10, 25, or 40, known as raids). A feature of higher-level play consequent on the gear mechanic is the formation of player groups (guilds), which coordinate both gear-acquiring sessions of instance play and the distribution of dropped gear within groups. Many guilds oriented toward higher-end raiding require players to have acquired a particular threshold of gear quality (there are different “tiers” of gear) before being considered for admittance. Time investment for tiered gear is distributed. Access to high-level instances is restricted; players can complete some once per day, others once per week. High tier items are generally available in exchange for tokens obtained by completing the instance. With high-end instances generating perhaps 5 tokens per run, as many as 40 players participating in each run, and gear costing 50 to 75 tokens per item, and instances taking 5-6 hours of active

play in addition to whatever other time is spent coordinating the group, one can begin to understand both the time commitment involved and the scarcity of tiered gear. Guilds able to invest the time to successfully organize and acquire such gear for their members, like the gear itself, become status-carrying and tiered, with high status guilds acquiring considerable fame within their gaming community.

Yee has extensively studied the demographics of MMORPG participation, with particular attention to WoW. His research indicated that the mean number of hours per week spent playing WoW was 21.9 hours per week. This can be contrasted with a mean hours per week spent watching TV by MMORPG gamers of 7.7, and a national (U.S.A.) mean of 28 hours per week watching TV. He also discovered a strong positive correlation between the desire for in-game socialisation and hours of play; the more players interact, and seek to interact with each other, the more time they spend in the game world (Yee: n.d.). The social dynamic of MMORPGs and the gear mechanic tend to be mutually reinforcing. Successful play depends on the formation of a cooperative peer group, but once such a group is established, it puts pressure on participants to maintain levels of play and keep up with the power level of the group.

### Part 3: Gear, grinding, and work.

It is possible to advance the argument that gear production through participation in MMORPGs constitutes labour, insofar as it involves the investment of human time and agency to produce products with a market value. The first counter-arguments typically advanced to this position involve the artificial nature of the value produced, and the virtual nature of the goods in question. Neither argument, in and of itself, is sufficient. If

they were, one could advance the argument that workers in the diamond and financial services industries were not engaged in labour either. The real difficulty encountered in characterising MMORPG participation lies in our understanding of property.

At first glance, issues of property regulation would seem to be the simplest entry into the interaction between MMOG and states. That in-game items possess economic value is well-established fact; items can be purchased in-game for currencies convertible to real-world equivalents, and virtual items are sold for real world currencies through on-line mechanisms on a daily basis.<sup>5</sup> Issues emerge, however, in the interaction between intellectual property rights and property rights, and the issue of taxation. A common feature across most MORGs is the end user license agreement (EULA), which typically restricts the rights of players to any claim of ownership regarding items they obtain or create in-game. The validity of these EULAs is predicated on intellectual property claims made by game designers to the environment of the MMORPG. Although specifics vary from jurisdiction to jurisdiction, these claims can be equated to those made for other software or digital media. While one can certainly alienate the cd or software purchased, the original designer or distributor retains the rights to the data contained on it. Similar claims are made by designers of MMOGs; anything produced in the game environment is a simple extension of the design code of the game, and is thus the property of the

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<sup>5</sup> Until 2007, eBay was the common nexus for sale of in-game items and currency. In January 2007, eBay began to aggressively delete the accounts of users trading in such items, citing existing policy for the sale of digital goods. eBay only permits the sale of such good in cases where the seller has an unambiguous claim to that property; the legal ambiguity surrounding virtual property was the ostensible issue prompting the move to delete accounts. Rather than having any real negative impact on scale, consensus in the MMOG community seems to be that the main effect of this move has been to decentralize the sale of in-game goods. The decentralization involved, coupled with the tendency of game companies to pursue legal action against large, persistent item traders, has made it difficult to generate data to support or deny this consensus (Hecht, 2007).

designer. In practice, the rights of designers have been enforced both through limited IP licenses such as EULAs and through chattel laws.

There has been a surge of cases worldwide in which MMORPG players have asserted property claims, including a successful suit in South Korea against the designers of Lineage for property loss when the servers housing Lineage data were hacked. A number of authors have noted the sense of property entitlement implicit in the items players acquire in game (c.f., Lastowka and Hunter, 2004a and 2004b; Luse, 2004; Balkin, 2004; Fairfield, 2005; Fairfield and Castronova, 2007; Castronova, 2001; Dibble: 2006). These claims are based on three core arguments: first, that these items, although intangible and ultimately expressed as digital code, represent real and distinct form of property; second, that this form of property is not adequately addressed by existing law;<sup>6</sup> and third, that the time and effort expended in acquiring these items in game gives players a legitimate claim to the property produced, insofar as the game play represents value-added activity in which players do not sell their time.

The idea that virtual property represents a different category that cannot be adequately addressed by existing property regulation has been advanced by Fairfield (2005), who notes that unlike existing code, virtual property is persistent, interactive, and rivalrous; the property continues to exist regardless of the participation of the player, other players interact with the property in the same way the owner does, and only one user can employ the property at a given time. Fairfield suggests this presents significant

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<sup>6</sup> Taiwan recognized virtual property as a distinct category of property in 2001, and has developed supplementary regulation to protect it. Both China and South Korea, although lacking a distinct legal framework, aggressively pursue instances of virtual property theft and fraud in an effort to attract the growing economic flow that MMORPGs represent. Most MMORPG companies focus considerable attention on account security, and take steps to replace in-game property associated with accounts if they are hacked.

problems for dealing with virtual property either in terms of intellectual property or in terms of traditional chattels, because both fail to take into account the layered formation of the internet, in which “the physical computers and connections that are the backbone of the net form the basis for internet communication; layered on top of that are the transfer protocols that enable communications between computers; layered on top of that is the basic code that creates a website or a virtual world; layered on top of that is the intellectual property that inheres in the content of the website or virtual world; and layered on top of that are the creations of the environment users” (Fairfield, 2005: 1076).

Chattel rights (for example to the servers housing the data) and IP rights (to the software facilitating operation in the virtual environment) can both produce an anti-commons in which the potential of the “commons” is under-used or undeveloped because of the horizontal control exerted by partial owners. The use of EULAs to restrict the property rights of game players through contract licenses is one such example of an anti-commons. Fairfield suggests that organizing property law around the level of code, and recognizing that persistent, interdependent, and rivalrous property sustained by code constitutes a form distinct from other code, allows for the emergence of a property regime which will facilitate the development potential that MMOGs and virtual property represent.

If Fairfield is right, and the virtual goods generated through MMORPG participation do constitute an emerging form of valued property, it becomes much more difficult to argue that MMORPG participation does not constitute work. What makes such opposition even more difficult is that, in parts of the world, participation in MMORPGs constitutes paid labour.

#### Part 4: Gold Farming

Adding another layer of complexity to the picture, wage differentials between first world and third world workers have led to the establishment of a small but growing trade in specialized goods. In the documentary film *Gold Farmers*, Ge explores the emergence of China as a global centre for gold farming and the lives of Chinese gold farmers, Chinese workers who are paid to play games like WoW in order to develop powerful characters, find rare items, and hoard currency, all of which can then be sold to western consumers (Ge: 2010). Gold farming has tended to concentrate in China, Vietnam, and South Korea, all countries with relatively low wage rates, a flexible government attitude to labour regulation, and a relatively well developed internet infrastructure. Although commonly characterized as gaming “sweatshops”, Ge’s film suggests the issue is not so clear.

Opinions are divided on the nature of gold farm employment, including among gold farm employees. Typically young, single, and male, gold farm workers operate on 12 hour shifts, often eating and sleeping in the same location that they work. While some gold farmers draw attention to the fact that they are being paid money to play games, others distinguish between their activity and the more self-directed engagement with the games that characterise play. One employee notes a recurring tension with family, and a general reluctance to recognize what he is doing as work, despite the fact that he brings home a wage (Ge: 2010).

In some ways, the phenomenon of gold farms simply follows the traditional model of comparative advantage in which high-wage countries outsource labor-intensive production activities to lower wage countries. Dibbell (2007) offers a concise summary of the economic model at play:

“At the end of each shift, Li [the gold farmer] reports the night’s haul to his supervisor, and at the end of the week, he, like his nine co-workers, will be paid in full. For every 100 gold coins he gathers, Li makes 10 Yuan, or about \$1.25, earning an effective wage of 30 cents an hour, more or less. The boss, in turn, sells those same coins to an online retailer, who will sell them to the final customer (an American or European player) for as much as \$20. The small commercial space Li and his colleagues work in—two rooms, one for the workers and another for the supervisor—along with a rudimentary workers’ dorm, a half-hour’s bus ride away, are the entire physical plant of this modest \$80,000-a-year business. It is estimated that there are thousands of businesses like it all over China, neither owned nor operated by the game companies from which they make their money. Collectively they employ an estimated 100,000 workers, who produce the bulk of all the goods in what has become a \$1.8 billion worldwide trade in virtual items.” (Dibbell: 2007)

The operation of such gold farmers has become a controversial component of MMORPGs. Game companies have attempted to prevent such operations, fearing that they could destabilize the virtual economy or undermine the game experience. The presence of gold farmers has also become a focal point for in-game tensions which echo the racist anti-immigrant rhetoric of the 19<sup>th</sup> century (calling, as Yee notes, for the “extermination” of gold farmers, who are described as “rats” or “vermin”).<sup>7</sup> In Ge’s film, a western gamer, upon being asked what they would like to say to a gold farmer if they met one, replied by stating that first they’d congratulate them on finding such and

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<sup>7</sup> Some of this resentment may also stem from the price differentials between servers. A study jointly performed by the University of Sheffield and the authors of [www.gamerprice.com](http://www.gamerprice.com) suggests a significant gold premium for buyers on North American servers, in contrast to European and particularly, Asian competitors. See SoW Gold Price Research (2007).

interesting job, and then ask why they had to ruin for all the other players. (Ge: 2010)

The demand for in-game currency and goods has meant that the virtual economies have become increasingly tied into the global market for virtual currency trading. After Blizzard Entertainment, the company that owns WoW, banned more than 50,000 accounts which they believed were used for gold farming, the market for gold coins tightened and the exchange rate increased from a low of 6 cents per gold in the spring of 2006 to a high of 35 cents in January 2007 (Dibbell, 2007). Account security has been a recurring issue for Blizzard, which has introduced a succession of account monitoring and security procedures in order to both identify and eliminate gold farmer accounts, and to protect core users from hackers who seek to access and pirate “legitimately” accumulated gold. These procedures have met with only indifferent success.<sup>8</sup>

The primary motivation to use the services of gold farmers, or equivalent services such as power-leveling (in which a contracted agent takes over an avatar for the purpose of rapidly advancing it in level) is grinding, the time expenditure associated with MMORPG participation. Lehdonvirta and Ernkvist have calculated participation rates in what they call the market in “third-party online gaming services” to lie between 22 and 25% depending on region. In other words, despite the noted hostility towards those who farm gold, roughly a quarter of MMORPG players use the services of gold farms or power levelers. Factoring in participation rates, the number of active players, and average expenditure by region, they estimate the total market size for third-party services at just over three billion dollars U.S.. In contrast to other industries characteristic of the developing world (the authors note coffee production, where the global market is over

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<sup>8</sup> The author has had his WoW account hacked on three separate occasions. On each occasion, the account was eventually restored, but the process takes several weeks.

\$US70 billion, but only \$US5.5 billion is captured locally), the bulk of that market is captured in the countries where the services are produced. In other words, gold farming can have “. . . a significant impact on local economies despite its modest size. It can also support the organic development of local ICT infrastructure by providing revenue models that maintain existing deployments and justify new private investments” (Lehdonvirta and Ernkvist: 2011, p 15).

#### Conclusion: Work, play, and the virtual labourer

Gold farms indicate that at least some of the activity which occurs through MMORPG participation can be unproblematically assessed as work; employees sell their labour within a recognized industry to produce goods and services. The existence of gold farms makes problematic, however, the claim that non-paid participation in MMORPGs can be unproblematically assessed as play. A considerable portion of feminist literature over the last several decades has established that labour is not restricted to the market. The investment of time, the production of goods and services, and the capacity to assign at least theoretical value to those goods and services all speak to our understanding of work as well. MMORPG participation meets all three of those criteria. There are in excess of 12 million registered WoW users, each spending an average of about 21 hours a week in the game environment; each week, WoW users spend 252 million hours generating items with real exchange value. Due to the constraints of EULAs and existing legal and cultural norms of work and property, however, not only are these hours not recognized as work, but WoW users must pay for the privilege of expending them.<sup>9</sup>

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<sup>9</sup> A competitor to WoW, Lord of the Rings Online (LotRO), has recently moved to a model in which participation in the game world is free, although certain regions and avatar capabilities require expenditure.

What makes the issue so vexing is that the value MMORPG properties represent is directly consequent on the hours of “play” users invest. In contrast to most other examples of paid recreation (gardening, professional sports, etc.), recreational activity in the game environment contributes as much to this process of value formation as paid activity. Blizzard Entertainment is one of the world’s largest online gaming companies; Heeks (2008) suggests WoW constitutes about half the online gaming market. It holds this position because of the millions of hours gamers spend weekly in WoW. The moment that rate of participation drops off, the value of WoW (and consequently of Blizzard) will plummet. Gamer labour creates Blizzard value, regardless of whether that labour is remunerated (gold farmers) or not (“amateur” players).<sup>10</sup> This model of sustaining value through sustaining participation echoes larger trends in internet-based business as a whole. Facebook and Youtube are two examples of services in which value is ultimately dependant on maintaining user participation rates. Without content generation and user participation, both are simply valueless bits of code.

MMORPGs illustrate how existing categories of understanding about what differentiates work and play are being challenged by the emergence of virtual goods and services, and emerging forms of interaction via the internet. MMORPG participation is distinguished from other forms of commercialized play (such as professional sports) in that every user generates product with an exchange value. Like the unpaid labour studied by feminists, it represents a significant investment of time and human effort to which can be attached value. A subset of MMORPG participation has already moved into the paid

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It is unclear at this time if this move was a response to recognising the value-creating impact of participation by players, or simply an effort to expand their share of the market in competition with the pay-to-play model of WoW.

<sup>10</sup> It is difficult to argue a direct connection between sandlot baseball and its Major League equivalent. The connection is much less difficult to establish in the case of Facebook, Youtube, or WoW

labour market. Taken together, this suggests that MMORPGs and other equivalent forms of virtual value creation require the development of a new theoretical category of labour, one which acknowledges the creation of value independent from the commodification of the labour which produces it. Ge speaks to the issue of the “alienation of play”, in which both the process of play and its product belong to another actor. The concept encapsulates both the practice of the gold farmers and of the value-generating player of WoW, and suggests that with the emergence of a virtual realm of activity, market relations have moved beyond the limitations of commodification and exchange.

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