MAKING SENSE OF MUDs THROUGH EMERGENT GAMEPLAY

A Virtual Lineage

ABSTRACT – By studying emergent gameplay in MUDs, this study aims to provide a lineage in the way people regard their virtuality within these MUDs. It is found that the development from early MUDs to modern MMOs closely resembles the real-world transgression from tribal communities to global societies.

Keywords:
MUD, LambdaMOO, World of Warcraft, emergent gameplay, ludocapitalism, virtuality

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1. EMERGENT GAMEPLAY

The first thing Jack had noticed about her were her beautiful eyes, which had the colour of the sky. After their first meeting, he had fallen steadily more in love with the mayor's only daughter, Jill, and she with him. After a long period of courting, they decided to tie the knot and get married. Everything seemed perfect, until one day the mayor was found dead in his house. No one had reason to suspect his son-in-law, who had in fact gotten envious with the Mayor's fortune and had decided to kill him so his wife would inherit a fortune Scrooge McDuck would be proud of. Of course, when Jill finally found out about this, she didn't want anything to do with Jack anymore, and filed for divorce. Blinded by his greed, he killed her too, and then moved into the mayor's house.

Although to some this might sound like the plot of an Agatha Christy novel, the story above actually chronicles the actions of a teenage boy playing the videogame *Fable*. Game developer Peter Molyneux gave this example in an interview to explain the concept of *emergent gameplay*: 'using the rules of the game world to do something unexpected and unplanned by the game's designers' (Kosak 2004: 2). In this case, the game provided the player with exactly the things he figured he would get: money and a house.

Jesper Juul (2005) explains that games set rules for potential actions, and that combining rules and objects in a game creates possibilities for emergent gameplay. The more connections between rules and objects a game has, the bigger the chance that players stumble upon unexpected rule combinations. Well-known examples of emergent gameplay can be found in *Deus Ex*, where players used wall mines as a means to climb walls, thereby escaping the game's 'carefully predefined boundaries' (Smith 2001), and in the first person puzzle game *Portal*, where players faced with the task to climb onto a ridge, instead of following the game's rather intricate preset solution, would frequently resort to stacking chairs to reach the same result (Walker 2007).

While in single player or off-line games arguably the worst emergent gameplay can lead to is escaping the map with a makeshift ladder, in multiplayer games 'bad' emergent gameplay influences not only the way the player experiences the game, but the way other players do as well. Especially in games where there is no clear-cut path to previously defined goals, the effects can be uncanny. This paper aims to shed light on the way people experience their virtuality in Multi-User Dungeons (MUDs) and the way this has changed through time by looking more closely some examples of what could be termed 'bad' emergent gameplay.

In order to do this, first a short overview and description will be given of the three types of MUDs that are important to this study. After this the works of Julian Dibbell and Steve Shaviro on the ways people experience MUDs will be discussed. Finally, I will compare the findings of Dibbell and Shaviro with two relatively recent examples of 'bad' emergent gameplay in the popular *World of Warcraft* game, in the hopes of providing some insight into the way people view their virtuality in MUDs and how this has changed since the early era of MUDs.

2. MUDs, MOOs and MMORPGs

2.1 MUDs

As stated above, MUD is an acronym for *Multi-User Dungeon*, *Domain* or *Dimension*. A MUD is typically a text-based multiplayer computer game that combines elements of role-playing games, hack and slash style computer games and social chat rooms (Wikipedia Contributors 2008b), that can usually be freely accessed using a basic telnet application. In a

MUD, rooms, objects, events, players and other characters are presented through a textual description—instead of a visual representation of the virtual world, players are presented with a text that could read, for example, 'you are standing in a dimly lit room with a table in the middle. There is a person sitting on a chair'. Interaction with the world and other players happens through the typing of simple commands that resemble a natural language, usually English (Wikipedia Contributors 2008b).

Most traditional MUDs were built around the rules of the role-playing board game Dungeons & Dragons. Like D&D, these MUDs consisted of fantasy worlds inhabited by fantasy creatures, where each player represents a certain class with specific skills, and where the object of the game is to 'slay monsters, explore a rich fantasy world, to complete quests, go on adventures, create a story by roleplaying, and/or advance the created character' (Wikipedia Contributors 2008b).

While there are other MUDs that revolve around themes other than fantasy (such as science-fiction or popular books, movies and the like), there are also variants of the MUD that sidestep the D&D-based rules entirely, instead focussing more on social aspects (although role-playing is still very much a possibility), which brings us to the MOO.

2.2 MOOs

MOO stands for *MUD, Object Oriented*. Like the MUD, a MOO is a text-based virtual environment where people can interact. The thing that sets MOOs apart from MUDs is the fact that MOOs allow their users to:

> perform object oriented programming within the server, ultimately expanding and changing how the server behaves to everyone. Examples of such changes include authoring new rooms and objects, creating new generic objects for others to use, and changing the way the MOO interface operates. (Wikipedia Contributors 2008a)

Obviously, in accordance with Juul's theory, this allows for some very creative emergent gameplay, but this is explored in more detail in the next chapter.

2.3 Graphical MUDs, or MMORPGs

Graphical MUDs replace part or all of the texts that represent the world in a typical MUD with computer generated graphical representations. A simple telnet application is not enough to play graphical MUDs; players have to download a special client and the game's artwork (Wikipedia Contributors 2008b). During the late nineties, following the increase in sheer computing power and worldwide Internet connectivity, graphical MUDs became better known as *Massively Multiplayer Online Role-Playing Games*, or MMORPGs (Wikipedia Contributors 2008b). Most MMORPGs follow the rule-based system of early MUDs more closely than MOOs.[1]

3. ANALYZING MUDs

This chapter presents a lineage of theories about MUDs. This will in itself reveal a difference in the way people ('normal' players as well as academics) think about and experience both their own virtuality and virtuality as a relatively abstract concept, which will be made explicit by combining theory with practice in the last chapter.

[1] While some people would categorize games that don't adhere to a rule-based system with preset under the graphical MUD moniker as well, I would argue that these games could be better categorized as 'graphical MOOs'. The game *Second Life* would be a perfect example of such a virtual environment.

3.1 Virtual Rape

In his book *My Tiny Life*, Julian Dibbell (1998) recounts his experiences on LambdaMOO, the very first MOO. In-between autobiographical accounts of LambdaMOO events he touches on more theoretical subjects that seem to hit the core of what virtuality really is, and where it fits in people's lives. For this paper, the most important aspect of Dibbell's account of LambdaMOO is the event in which a player displayed a rather disturbing form of emergent gameplay.

As I said before, the thing that sets MOOs apart from MUDs is the fact that players are allowed and encouraged to add to the world in pretty much whatever way they see fit. One of the additions people had fabricated was a little subprogram called a 'voodoo doll'. The voodoo doll allowed players to attribute actions and remarks to other players, which was more popularly known as 'spoofing'. In the context of a MOO, this meant that 'by typing actions into the voodoo doll, its owner could make it appear as if another player were performing those actions' (Dibbell 1996). Dibbell notes that the voodoo doll, when used with the right intentions and within certain implicit boundaries—which was usually the case—was accepted by most players as a source of good clean fun (1996). The one time these boundaries were crossed, however, a scene ensued that the people who were there to witness it would not soon forget.

The one who crossed the boundaries was a player known as Mr. Bungle, described by Dibbell as 'a fat, oleaginous, Bisquick-faced clown dressed in cum-stained harlequin garb and girdled with a mistletoe-and-hemlock belt whose buckle bore the quaint inscription *KISS ME UNDER THIS, BITCH!*' (1998: 13). The way he crossed them, was by using the voodoo doll to make 'one of the room's occupants […] sexually service him in a variety of more or less conventional ways', to force people into 'unwanted liaisons with other people in the room', to make someone 'eat his/her own pubic hair, and to make someone 'violate herself with a piece of kitchen cutlery' (1998: 13).

While most of Dibbell's story relates how the citizens of LambdaMOO tried to solve the problem of how to punish Mr. Bungle, what matters for this paper is not *how* they solved it, but *why* people were so upset in the first place. The people who had been 'cyber raped' by Mr. Bungle felt violated in a very real way—even if no 'real' rape ever took place—although no one was quite prepared to take steps to punish Mr. Bungle in real life. As Dibbell writes:

> [the] mingling of murderous rage and eyeball-rolling annoyance … was a curious amalgam that neither the RL nor the VR facts alone can quite account for. Where virtual reality and its conventions would have us believe that exu and Moondreamer were brutally raped in their own living room, here was the victim exu scolding Mr. Bungle for a breach of "civility." Where real life, on the other hand, insists the incident was only an episode in a free-form version of Dungeons and Dragons, confined to the realm of the symbolic and at no point threatening any player's life, limb, or material well-being, here now was the player exu issuing aggrieved and heartfelt calls for Mr. Bungle's dismemberment. Ludicrously excessive by RL's lights, woefully understated by VR's, the tone of exu's response made sense only in the buzzing, dissonant gap between them. (1998: 16)

The reason for this, as Dibbel argues, is—at least when talking about the early days of the MUD—that:

> when it comes to sex, perhaps the body in question is not the physical one at all, but its psychic double, the bodylike self-representation we carry around in our heads -- and that whether we present that body to another as a meat puppet or a word puppet is not nearly as significant a distinction as one might have thought. (1998: 16)

To players in LambdaMOO, then, the virtual world is not the same as the real world, but it is not 'just' virtual either. They regard it more as what Michel Foucault would call a

heterotopia. Heterotopias, according to Foucault are 'other-places' instead of 'placeless places', and are defined as 'real places, actual places […] which are sorts of actually realized utopias in which the real emplacements, all the other real emplacements that can be found within the culture, are, at the same time, represented, contested and reversed' (Foucault 1986: 24). Somewhere in this heterotopia lies the 'buzzing gap' between the real and the virtual world, which was for most people exactly where their virtuality existed.

Against this mostly emotional account of virtuality I would like to posit Shaviro's musings about the fate of the Massively Multiplayer Online Game (MMOs), which seem to signify a paradigm shift in the way we have come to think about online games and the role we play in them.

3.2 Virtual Economies

In his essay 'Money for Nothing: Virtual Worlds and Virtual Economies', Steven Shaviro (2007) explores the relations between MMOs and virtual capitalism. Himself one of the early virtual colonists inhabiting LambdaMOO, he looks back at his life there, remembering 'the promise of revolutionary personal and social change' (2007: 2) they felt LambdaMOO signified. In hindsight, however, he admits that these hopes were a bit optimistic, saying that '[w]hen a medium is new, we are dazzled by its sheer newness. We are tempted to regard it as a rupture in the order of being, something that shakes up all our habits and certitudes' (2007: 3-4). He remembers thinking that 'the virtual, seeping into the real, would somehow magically transform it' (2007: 3), only to find now that '[i]nstead, [virtual reality] has simply—and without any sort of disruption—been absorbed within the textures of everyday life. That is to say, what seemed exciting and cutting-edge to us, all those years ago, is today entirely humdrum and commonplace' (2007: 3).

He reckons that their misconception of the MUDs possibilities and future are based on the fact that when encountering a new medium 'we are unable to see the new medium clearly, precisely because it is so unprecedented. We tend to attribute qualities to it that are really just transitory consequences of its newness and technical imperfection' (2007: 4). Comparing old MUDs with newer versions, he concludes that the optimistic mindset of the people inhabiting LambdaMOO is a thing of the past, saying that 'we need to look at things today in a harsher, more cynical light' (2007: 3).

The most obvious conclusion Shaviro distils from this comparison is the fact that the neat distinction between virtual reality (VR) and real life (RL) no longer holds. He writes that:

> MMOs are not virtual *as opposed* to real, but themselves parts of the One Real, with the same ontological consistency as schools, factories, markets and weapons of mass destruction (all of which have both virtual and material aspects). I'd like to sharpen this claim, however, by suggesting that the "reality principle" of MMOs, the thing that makes them different from merely escapist fantasy worlds—and also different from heterotopic places of refuge, passion and experimentation—is precisely their economic systems. (2007: 8)

What Shaviro means by this is that in contemporary MMOs, *work* is not only getting increasingly mixed up in the virtual worlds that used to be for the most part 'merely escapist', it is also the main reason for their popularity. He explains that we are, in a way, 'addicted' to capitalism and the scarcity on which it is built, because '[s]carcity is a bit like heroin, in the way it stimulates, and satiates, those risk and reward structures in our brains […] Even in virtual reality, we prefer scarcity to abundance' (2007: 10, 11). Moreover, it is suggested that 'all else being equal […] people will choose the world that constrains them over the one that sets them free' (Dibbell, cited in Shaviro 2007: 12).

Ultimately then, Shaviro points to the fact that through the insertion of an artificial form of scarcity and capitalism in games, the very distinction between work and play begins to erode, and bringing us into what Dibbell calls 'an era of *lucocapitalism*' (Dibbell, paraphrased

in Shaviro 2007: 12). What this means is that besides the boundaries between play and work in games, the very boundaries between games and 'real life' are also beginning to fade. This manifests itself in games like Ultima Online where people spend their time 'playing' very much in the same way they would spend their time working in the real world, labouring for long stretches of time making artifacts within the game they can then try to sell, sometimes for actual money instead of just in-game money (Shaviro 2007). As will become clear in the next chapter, the 'rules' in online games that make such a capitalist system possible give rise to a host of activities that could arguably be called specific forms of emergent gameplay.

As I stated earlier, there is a difference in the way Dibbell discusses the online worlds in relation to Mr. Bungle's deprived act of virtual molestation, and the way both he and Shaviro think about online worlds nine years later. Shaviro nicely sums this up by saying that '[i]nstead of the heterotopia of LambdaMOO, then, we would seem to have reached the libertarian-capitalist fantasy of a fully virtual economy' (2007: 7).

I would finally argue then, that the MUD has gone through something of an evolution. In this light, the reactions of the 'cyber rape' victims might be likened to those of an easily impressionable child, who has yet to learn that in life things aren't always what they seem, and that not everyone is nice. Eventually, people abandoned some of their optimistic views and hopes for the heterotopic virtual world some saw in early MUDs and MOOs, before eventually adopting a more 'adult' and 'realistic' monetary system based on scarcity and capitalism into their worlds, as well as a more advanced system for punishing deviant behaviour. This brings us to the modern MMORPG, which, as I will show, displays emergent gameplay both similar to the situation as described by Dibbell and based upon the rules the games economic system has set up.

4. EMERGENT GAMEPLAY IN WORLD OF WARCRAFT

I have chosen to analyse the game *World of Warcraft* (commonly known as WoW) for this study, primarily because at 10 million subscribers and a market share of 62% it is currently the most popular MMOG worldwide, and because there are a number of well-known issues within the game world that closely resemble the forms of emergent gameplay described above (Wikipedia Contributors 2008c).

WoW falls into the category of graphical MUDs/MMORPGs. Like other MMORPGs, the aim is to advance your character by participating in quests, slaying monsters, completing quests or just explore the expansive game world, Azeroth, at your discretion. To keep even the highest-level characters interested, WoW is continually added to by its developer *Blizzard Entertainment* in the form of expansion packs. Most expansion packs consist of additional world areas and new 'instances', dungeons that can be visited by more than one party at the same time, separately. The addition of one of these instances led to the first phenomenon I would like to discuss, which is popularly known as The Corrupted Blood incident.

4.1 Corrupted Blood

Included in WoW's patch 1.7 was the additional Zul'Gurub dungeon, in which parties of up to 20 players could fight an ancient tribe of jungle trolls in the hopes of eventually slaying the ancient Blood God, Hakkar the Soulflayer (Wikipedia Contributers 2008c). One of the things this monster would do is inflict a 'debuff', a sort of illness called Corrupted Blood on the people who encountered it. This debuff would do 250-300 points worth of damage every few seconds to an inflicted character, which, even for players with characters that have reached level 70—the highest possible at the time—could be very dangerous, as their health points

would generally fall somewhere between 2500 and 5000, compared with about 1500 points for mid-level characters (Wikipedia Contributors 2008c). Moreover, the disease was highly contagious, as inflicted players would pass on the disease to any other player who came too close to the inflicted character. While lower level characters would be killed almost instantly, players with a higher level character could keep themselves alive with potions and spells long enough to kill the monster. Considering the danger of this disease to the average player, the developers had decided to keep the debuff constricted to Hagar's dungeon, so as to cater specifically to high-level players seeking more of a challenge (Wikipedia Contributors 2008c). Things went bad, however, when some players found a way to transport the disease out of the dungeon and into the open world.

Within WoW players can keep pets to aid them in battle or just to get around the world more quickly. These pets can be summoned and dismissed at will. As players found out, the way to get the Corrupted Blood out of Zul'Gurub was by allowing their pet to catch the disease and then dismissing them within five seconds. This would pause the debuff timer, allowing players to then summon the pet outside of the dungeon where it would pass the disease onto anyone unfortunate enough to stand to close to it (Wikipedia Contributors 2008c). Within days, 'Corrupted Blood had become *World of Warcraft*'s version of the Black Death, rendering entire cities uninhabitable and causing players to avoid large clusters of others, and in many cases, causing players to avoid major cities altogether' (Wikipedia Contributors 2008c). Although the developers tried to contain it by quarantining certain areas, pockets of the disease kept breaking out until they finally decided to remove the contagiousness of the disease entirely (Wikipedia Contributors 2008c).

There are a number of parallels that can be distinguished between the Corrupted Blood incident and the Mr. Bungle incident, including the fact that the incident happened through emergent gameplay, the division between the executors and the victims of the 'prank', the way the virtual solution resembled the solution a real world equivalent would have gotten (Mr. Bungle was 'sentenced' to death through rudimentary jurisdiction; Blizzard tried to get rid of their version of the plague through quarantine) and the fact that 'mere' deviant gameplay somehow seems to touch the core of certain issues in games studies. This discussion will focus on the former two.

The most obvious similarity between the incidents is that both originated from emergent gameplay. In Mr. Bungle's case, the voodoo doll subprogram was used in a way its makers had not intended, in the Corrupted Blood case the pet summon/dismissal system was used to work around boundaries set by the developers. Additionally, the Corrupted Blood illness turned out to be transferable to NPCs (non-player characters, i.e. characters run by artificial intelligence), who—while it did not kill them—were then able to transfer it back to other unsuspecting players (Wikipedia Contributors 2008c). In a world as big as WoW, the amount of rules and objects are so vast that emergent gameplay like this *had* to come forward sometime.

The second similarity is that of the distinction between perpetrator and victim. This is where the difference between LambdaMOO and WoW becomes clear: although on some servers half of the players were infected and most of them killed, their reactions in most cases leaned more towards annoyance than the outrage the victims of Mr. Bungle reportedly felt. I will argue that there are three reasons for this. First of all, death is a very common thing in WoW, so it would not carry the same shock value that the cyber rape in LambdaMOO did. Even if you play WoW just for the social aspects, dying from the Corrupted Blood debuff carried no real penalties or setbacks (Wikipedia Contributors 2008c). Second, it is very likely that WoW-players are less emotionally involved with their characters than people in LambdaMOO were. I suspect that, in accordance with Shaviro's findings, people play WoW for its reward structures, whether they find this in fighting monsters or catching fish.

Ultimately, WoW is a world that is designed more for playing than socializing. Third, there is the aspect of intimacy. LambdaMOO was, and still is, a relatively small commune, which carries a relatively intimate atmosphere. The feeling of betrayal in such a 'close' circle would be much stronger than in a large world such as WoW, where you're confronted with annoying players on a more regular basis. Likewise, rape itself is a much more personal violation than simply being one of the many to perish in a world-scale epidemic.

In this regard, it seems as though in the transit from LambdaMOO to WoW, the MUD has transformed from a tribal commune into a larger, more individualized and more globalized world, where people come primarily to play according to the game's reward structures instead of participating in the social gatherings and activities like people in LambdaMOO did.

4.2 Gold Farmers

While WoW is mostly about combat, there are a host of other skills that can be learned in WoW to aid the character outside of battle, such as mining, blacksmithing, cooking and fishing. Some people even choose to forego 'levelling up' their character entirely, as this process involves a lot of 'grinding'—painstakingly killing the same creatures over and over again to gain the experience points necessary for the next level—and prefer instead to focus more on these side-activities, with some even entering in social activities like fishing contests. The fact that it is possible in WoW to focus completely on just one aspect of its rich world has given rise to a very peculiar type of emergent gameplay.

In order to buy the best armour, the best sword, the best gear in WoW, you will need a lot of money. You can either 'grind' endlessly to acquire the money yourself, fighting monsters and receiving a few coins for each one you slay, or you can take the easy route. Since the late 1990's, players have been known to bypass grinding entirely, instead buying game money with actual money on auction sites like eBay (Dibbell 2007). Most game developers, however, do not endorse this kind of behaviour, as they believe real-money trading (RMT) 'harms the game [...] because the overheated productivity of gold farms and other profit-seeking operations makes it harder for beginning players to get ahead'. Consequently eBay no longer allows auctions that offer in-game content like money or gear. This has made little impact on the RMT business as transfers like these now operate through 'high volume online specialty sites like the virtual-money superstores IGE, BroGame and Massive Online Gaming Sales -- multimillion-dollar businesses offering one-stop, one-click shopping and instant delivery of in-game cash' (Dibbel 2007). Like other manufacturers seeking cheap labour in China, the source for all this in-game cash can be traced back all the way to what are popularly known as 'Chinese gold farmers'.

In his article 'The Life of the Chinese Gold Farmer', Julian Dibbell (2007) invites us to take a look into the life of just such a gold farmer. Working in small factories and earning a wage that calculates back to about 30 cents an hour, these farmers make a living by endlessly killing the same monsters for those few precious gold coins (Dibbell 2007). Their work is made even harder by the frequent outbursts of fervent anti-RTM hostility. As one of the workers explains, 'I have this idea in mind that regular players should understand that people do different things in the game […] They are playing. And we are making a living' (Min Qinghai, quoted in Dibbell 2007). This is exactly the eroding of the distinction between work and play Shaviro mentioned.

The combination of rules and objects in WoW have allowed for a type of emergent gameplay that is not aimed at in-game rewards and satisfaction, but enables people to actually make a living off it. While Shaviro mentions RMT as if it is an inescapable thing that will eventually encompass most if not all MMOs, Dibbell notices that Chinese gold farmers are far from accepted, both by players and by developers (2007). While the RMT chain runs from the farmers through retailers all the way back to the player buying the goods, in reality the only

people who are targeted by anti-RMT offences are the ones that have the most to loose: the farmers. As Blizzard continues to delete profiles belonging to those suspected of gold farming (Dibbell 2007), it seems as though it will take some time before the large public and developers will accept the erosion of the work/play distinction in the same way the Chinese gold farmers have.

In an attempt to escape the anti-RMT hatred, some of the Chinese people in this line of work have found ways to make money in WoW that defy the traditional work/play dichotomy even more than the 'traditional' gold farming. If you don't feel like powering up your character all the way to level 70, you're in luck, since there are now people who will do this for you. You simply provide them with your account name, your password and about $300, and these people will do just that for you (Dibbell 2007). The other way is even more perplexing. Factories with about forty employees wielding fully powered up characters under the watchful eye of 2 or 3 supervisors, 'calling out orders like generals', will escort your character through the most dangerous dungeons Azeroth has to offer, so you can reap the benefits at the end (Dibbel 2007).

It seems then, that, although not everyone is willing to accept this just yet, we are very much living in an era of ludocapitalism as described by Dibbell. In an era were not just the menial collecting of gold, but also the levelling up of your character and the raiding of dungeons—the things that attract most 'normal' players to WoW—are to some the very thing that puts bread on their table, I for one could not tell you were play ends and work begins if my life depended on it. As an added bonus, Dibbell observed that in their free time, most gold farmers and power levellers actually delved right back into the plains of Azeroth with their own character, blurring the line between work and play even further (2007). The heterotopy that was LambdaMOO seems to be lost forever, and has been replaced by the more capitalistic economic systems of the modern MMO, in which work can in some cases be *exactly* the same as play.

THE AGE OF LUDOCAPITALISM

In the beginning of this paper, I argued that certain cases of 'bad' emergent gameplay would allow us to study the relation people bear to their virtuality more closely than 'normal' or expected gameplay would. The Mr. Bungle incident, the Corrupted Blood incident, as well as the behaviour of evermore inventive Chinese gold farmer are manifestations of emergent gameplay within MUDs, and have all brought to light core questions about what virtuality is, how we deal with it and how we should study it.

Comparing a modern MMO like World of Warcraft with an early MUD like LambdaMOO, the differences are obvious. To me, at least, a certain evolutionary progress seems to have taken place, one that closely mirrors the real world transgression from tribalism into a more individualized 'Western' global society. Early MUDs were usually small, close communes, where most people knew each other. This, coupled with the sheer newness of the concept, meant that people had a much more personal relationship to their character, since they were experimenting with personae, and in essence, with who they were *as a person*, not just as a character. In light of this, the reactions to the Mr. Bungle incident were indeed proportionate to the crime committed.

From the group-focused play of LambdaMOO, the MUD has grown into the larger, less intimate and more individual world of the aptly named *Massively-Multiplayer Online Game*. Since people play these games for different reasons than MUDers and are consequently less personally committed to their character, the massacre brought on by players carrying the Corrupted Blood plague sparked only annoyance in their victims. I have argued that the most

important aspect of these games to most players, agreeing with Shaviro, is the reward system that enables them to progress in the game, which function much like the rewards people seek in their offline life and work.

The underlying economic system in these games have allowed for a 'fully virtual economy', where play money is just as valuable and directly exchangeable with real money. This in turn has enabled the rise of the Chinese gold farmer, who does nothing but 'grind' all day—the virtual equivalent of working on a conveyor belt—in a virtual world for a meagre wage. These workers have further blurred the line between work and play by offering other services to players, such as power-leveling their characters and offering their services as high-level dungeon-raiding escorts.

In conclusion then, it seems as though nearly all events within the evolution of the MUD towards the MMO towards a full-fledged *ludocapitalism* closely mirror real-world developments within the capitalistic society, as have people's relationships towards their virtuality.

During this research I came across numerous subjects that would be well worth researching, but had to be left out of this paper because of its limited scope. Further research might be conducted on the resemblances between real-world and virtual world problem solving. Other research could include trying to enrich our understanding of the work/play dichotomy in virtual worlds, more specifically concerning the workers who not only 'play' WoW during their work, but also during their free time. Research like this might broaden our understanding of virtual words, virtuality and the psychology of MMOs, and might eventually even enable Chinese gold farmers to function in our ludocapitalist society without being harassed by the very people they ultimately work for.

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